Preventing Toll Fraud

"Toll fraud" is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf). Be aware that there may be a risk of toll fraud associated with your system and that, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Fraud Intervention

If you suspect that you are being victimized by toll fraud and you need technical assistance or support, in the United States and Canada, call the Technical Service Center's Toll Fraud Intervention Hotline at 1-800-643-2353.

Disclaimer

Avaya is not responsible for any modifications, additions or deletions to the original published version of this documentation unless such modifications, additions or deletions were performed by Avaya. Customer and/or End User agree to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation to the extent made by the Customer or End User.

How to Get Help

For additional support telephone numbers, go to the Avaya support Web site: http://www.avaya.com/support. If you are:

- Within the United States, click the Escalation Contacts link that is located under the Support Tools heading. Then click the appropriate link for the type of support that you need.
- Outside the United States, click the Escalation Contacts link that is located under the Support Tools heading. Then click the International Services link that includes telephone numbers for the international Centers of Excellence.

Providing Telecommunications Security

Telecommunications security (of voice, data, and/or video communications) is the prevention of any type of intrusion to (that is, either unauthorized or malicious access to or use of) your company's telecommunications equipment by some party. Your company's "telecommunications equipment" includes both this Avaya product and any other voice/data/video equipment that could be accessed via this Avaya product (that is, "networked equipment"). An "outside party" is anyone who is not a corporate employee, agent, subcontractor, or is not working on your company's behalf. Whereas, a "malicious party" is anyone (including someone who may be otherwise authorized) who accesses your telecommunications equipment with either malicious or mischievous intent.

Such intrusions may be either through synchronous (time-multiplexed and/or circuit-based), or asynchronous (character-, message-, or packet-based) equipment, or interfaces for reasons of:

- Utilization (of capabilities special to the accessed equipment)
- Theft (such as, of intellectual property, financial assets, or toll facility access)
- Eavesdropping (privacy invasions to humans)
- Mischief (troubling, but apparently innocuous, tampering)
- Harm (such as harmful tampering, data loss or alteration, regardless of motive or intent)

Be aware that there may be a risk of unauthorized intrusions associated with your system and its networked equipment. Also realize that, if such an intrusion should occur, it could result in a variety of losses to your company (including but not limited to, human/data privacy, intellectual property, material assets, financial resources, labor costs, and/or legal costs).

Responsibility for Your Company's Telecommunications Security

The final responsibility for securing both this system and its networked equipment rests with you - Avaya's customer system administrator, your telecommunications peers, and your managers. Base the fulfillment of your responsibility on acquired knowledge and resources from a variety of sources including but not limited to:

- Installation documents
- System administration documents
- Security documents
- Hardware/software-based security tools
- Shared information between you and your peers
- Telecommunications security experts

To prevent intrusions to your telecommunications equipment, you and your peers should carefully program and configure:

- Your Avaya-provided telecommunications systems and their interfaces
- Your Avaya-provided software applications, as well as their underlying hardware/software platforms and interfaces
- Any other equipment networked to your Avaya products

TCP/IP Facilities

Customers may experience differences in product performance, reliability and security depending upon network configurations/design and topologies, even when the product performs as warranted.

Standards Compliance

Avaya Inc. is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Avaya Inc. The correction of interference caused by such unauthorized modifications, substitution or attachment will be the responsibility of the user. Pursuant to Part 15 of the Federal Communications Commission (FCC) Rules, the user is cautioned that changes or modifications not expressly approved by Avaya Inc. could void the user's authority to operate this equipment.

Product Safety Standards

This product complies with and conforms to the following international Product safety standards as applicable:

- Safety of Information Technology Equipment, IEC 60950, 3rd Edition, or IEC 60950-1, 1st Edition, including all relevant national deviations as listed in Compliance with IEC for Electrical Equipment (IECEE) CB-96A.

One or more of the following Mexican national standards, as applicable: NOM 001 SCFI 1993, NOM SCFI 016 1993, NOM 019 SCFI 1998.

The equipment described in this document may contain Class 1 LASER Device(s). These devices comply with the following standards:

- EN 60825-1, Edition 1.1, 1998-01
- 21 CFR 1040.10 and CFR 1040.11

The LASER devices used in Avaya equipment typically operate within the following parameters:

<table>
<thead>
<tr>
<th>Typical Center Wavelength</th>
<th>Maximum Output Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>830 nm - 860 nm</td>
<td>-1.5 dBm</td>
</tr>
<tr>
<td>1270 nm - 1360 nm</td>
<td>-3.0 dBm</td>
</tr>
<tr>
<td>1540 nm - 1570 nm</td>
<td>5.0 dBm</td>
</tr>
</tbody>
</table>

Luokan 1 Laserlaite

Klass 1 Laser Apparat

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposures. Contact your Avaya representative for more laser product information.
Electromagnetic Compatibility (EMC) Standards
This product complies with and conforms to the following international EMC standards and all relevant national deviations:
  - Electrostatic Discharge (ESD) IEC 61000-4-2
  - Radiated Immunity IEC 61000-4-3
  - Electrical Fast Transient IEC 61000-4-4
  - Lightning Effects IEC 61000-4-5
  - Conducted Immunity IEC 61000-4-6
  - Mains Frequency Magnetic Field IEC 61000-4-8
  - Voltage Dips and Variations IEC 61000-4-11

Power Line Emissions, IEC 61000-3-2: Electromagnetic compatibility (EMC) - Part 3-2: Limits - for harmonic current emissions.

Power Line Emissions, IEC 61000-3-3: Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems.

Federal Communications Commission Statement
Part 15:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Part 68: Answer-Supervision Signaling
Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 rules. This equipment returns answer-supervision signals to the public switched network when:
- answered by the called station,
- answered by the attendant, or
- routed to a recorded announcement that can be administered by the customer premises equipment (CPE) user.

This equipment returns answer-supervision signals on all direct inward dialed (DID) calls forwarded back to the public switched telephone network. Permissible exceptions are:
- A call is unanswered.
- A busy tone is received.
- A reorder tone is received.

Avaya attests that this registered equipment is capable of providing users access to interstate providers of operator services through the use of access codes. Modification of this equipment by call aggregators to block access dialing codes is a violation of the Telephone Operator Consumers Act of 1990.

REN Number
For MCC1, SCC1, CMC1, G600, and G650 Media Gateways:
This equipment complies with Part 68 of the FCC rules. On either the rear or inside the front cover of this equipment is a label that contains, among other information, the FCC registration number, and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

For G350 and G700 Media Gateways:
This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the rear of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. The digits represented by # are the ringer equivalence number (REN) without a decimal point (for example, 03 is a REN of 0.3). If requested, this number must be provided to the telephone company.

For all media gateways:
The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed 5.0. To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.
REN is not required for some types of analog or digital facilities.

Means of Connection
Connection of this equipment to the telephone network is shown in the following tables.

For MCC1, SCC1, CMC1, G600, and G650 Media Gateways:

<table>
<thead>
<tr>
<th>Manufacturer's Port Identifier</th>
<th>FIC Code</th>
<th>SOC/REN/ A.S. Code</th>
<th>Network Jacks</th>
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<tbody>
<tr>
<td>Off premises station</td>
<td>D13C</td>
<td>9.0F</td>
<td>RJ2GX, RJ21X, RJ11C</td>
</tr>
<tr>
<td>DID trunk</td>
<td>02RV2-T</td>
<td>0.0B</td>
<td>RJ2GX, RJ21X</td>
</tr>
<tr>
<td>CO trunk</td>
<td>02GS2</td>
<td>0.3A</td>
<td>RJ21X</td>
</tr>
<tr>
<td>Tie trunk</td>
<td>02LS2</td>
<td>0.3A</td>
<td>RJ21X</td>
</tr>
<tr>
<td>Basic Rate Interface</td>
<td>02IS5</td>
<td>6.0F, 6.0Y</td>
<td>RJ40C</td>
</tr>
<tr>
<td>1.544 digital interface</td>
<td>04DU9-BN</td>
<td>6.0F</td>
<td>RJ48C, RJ48M</td>
</tr>
<tr>
<td>120A channel service unit</td>
<td>04DU9-DN</td>
<td>6.0Y</td>
<td>RJ48C</td>
</tr>
</tbody>
</table>

For G350 and G700 Media Gateways:

<table>
<thead>
<tr>
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<th>SOC/REN/ A.S. Code</th>
<th>Network Jacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Start CO trunk</td>
<td>02GS2</td>
<td>1.0A</td>
<td>RJ11C</td>
</tr>
<tr>
<td>DID trunk</td>
<td>02RV2-T</td>
<td>AS.0</td>
<td>RJ11C</td>
</tr>
<tr>
<td>Loop Start CO trunk</td>
<td>02LS2</td>
<td>0.5A</td>
<td>RJ11C</td>
</tr>
<tr>
<td>1.544 digital interface</td>
<td>04DU9-BN</td>
<td>6.0Y</td>
<td>RJ48C</td>
</tr>
<tr>
<td>Basic Rate Interface</td>
<td>02IS5</td>
<td>6.0F</td>
<td>RJ49C</td>
</tr>
</tbody>
</table>

For all media gateways:
If the terminal equipment (for example, the media server or media gateway) causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact the Technical Service Center at 1-800-242-2121 or contact your local Avaya representative. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. It is recommended that repairs be performed by Avaya certified technicians. The equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

This equipment, if it uses a telephone receiver, is hearing aid compatible.

Canadian Department of Communications (DOC) Interference Information
This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

Installation and Repairs
Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Declarations of Conformity
United States FCC Part 68 Supplier’s Declaration of Conformity (SDoC)
Avaya Inc. in the United States of America hereby certifies that the equipment described in this document and bearing a TIA TSB-168 label identification number complies with the FCC’s Rules and Regulations 47 CFR Part 68, and the Administrative Council on Terminal Attachments (ACTA) adopted technical criteria.

Avaya further asserts that Avaya handset-equipped terminal equipment described in this document complies with Paragraph 68.316 of the FCC Rules and Regulations defining Hearing Aid Compatibility and is deemed compatible with hearing aids.

Copies of SDoCs signed by the Responsible Party in the U.S. can be obtained by contacting your local sales representative and are available on the following Web site: http://www.avaya.com/support.

All Avaya media servers and media gateways are compliant with FCC Part 68, but many have been registered with the FCC before the SDoC process was available. A list of all Avaya registered products may be found at: http://www.part68.org by conducting a search using "Avaya" as manufacturer.

European Union Declarations of Conformity

Copies of these Declarations of Conformity (DoCs) can be obtained by contacting your local sales representative and are available on the following Web site: http://www.avaya.com/support.

Japan
This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may occur, in which case, the user may be required to take corrective actions.

To order copies of this and other documents:
Call: Avaya Publications Center
Voice 1.800.457.1235 or 1.207.866.6701
FAX 1.800.457.1764 or 1.207.626.7269

Write: Globalware Solutions
200 Ward Hill Avenue
Haverhill, MA 01835 USA
Attention: Avaya Account Management
E-mail: totalware@gwsmail.com

For the most current versions of documentation, go to the Avaya support Web site: http://www.avaya.com/support.
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Chapter 1: Introduction

This document describes procedures for upgrades, migrations, and conversions of Avaya telecommunications products that use the Avaya Communications Manager software application. Because the terms *upgrades*, *migrations*, and *conversions* are not well understood, we have defined them here.

An *upgrade* is an installation of a newer release of software on a media server or a newer version of firmware on a hardware component. Components include media gateways, media modules, Ethernet switches, and programmable circuit packs.

A *migration* is a change in hardware. The types of migration include migrating a non-Linux-based switch to a Linux-based media server, migrating a Linux-based media server to a different Linux-based media server; and migrating a media gateway to a different media gateway. A migration is usually accompanied by an upgrade.

A *conversion* is a change in function or mode, reliability, or connectivity of various hardware components. Components include media servers and media gateways. A conversion may be preceded by a migration and may include an upgrade.

---

Upgrades

The most common upgrade is upgrading Avaya Communication Manager on a media server. Upgrades can be either major or minor (a dot release). Occasionally, it involves changing existing hardware, such as replacing the S8300 Media Server with the S8300B Media Server.

A Communication Manager service pack is an upgrade to the software that does not change the software release. It is not considered a minor release. It is generally installed after a software upgrade, although sometimes it is necessary to install one before upgrading the software to add a new link on the Maintenance Web Interface. Service pack was formerly known as a *software update or patch*.

For more information on upgrades and upgrade paths, see Upgrades on page 37.
Migrations

The most common migrations are from a non-Linux-based switch (for example, DEFINITY) to a Linux-based media server. Less common are migrations from one Linux-based media server to another. Not all non-Linux-based switch migration paths are supported. A migration path refers to the platform and software release from which you can migrate to the new platform.

For more information on migrations and migration paths, see Migrations on page 233.

Conversions

The most common conversions are:

- changing the port network connectivity from a fiber connect to IP connect
- changing the mode of a media server from an internal call controller (ICC) to a local survivable processor (LSP) or a main media server to an enterprise survivable server (ESS).

Port network connectivity

Port networks are connected to each other either by an IP connection or a fiber connection.

IP connections use CAT-5 (category 5) or better Ethernet cables to connect port networks to an IP network for the transmission of bearer (voice) traffic. Both the control and bearer (voice) traffic are provided over the IP network.

Fiber connections, sometimes called a Multi-connect, use fiber-optic cables to connect port networks for the transmission of bearer (voice) traffic. The three types of fiber connections are direct connect, center stage switch (CSS), and asynchronous transfer mode (ATM), provided by a separate switch.

Direct connection is a special case of fiber connection in which fiber-optic cables connect two or three port networks without the use of a CSS or an ATM switch.

It is possible to have a combination of IP-connected and fiber-connected port networks. This configuration may contain only one CSS or ATM. Migrations and conversions may result in a combination of port network connectivity.
Reliability and availability

The reliability of a telecommunications system is defined by the extent of duplication of certain components. The traditional Standard, High, and Critical reliability levels apply to the pre-Linux-based switches. For Linux-based media servers, the standard reliability level is expanded to include Simplex (for S8500 media servers) and Duplex (for S8700 series media servers).

The availability of a telecommunications system is the time the system is ready and able to process calls as a percentage of the scheduled time. Availability depends on reliability.

Release 3.0 introduced the ability to combine types of port network connectivity (PNC) and to apply reliability designations separately to the IP-connected and fiber-connected portions of the system. The reliability level is defined per port network for the IP-connected portion and collectively for the fiber-connected portion. Therefore, combined PNC systems can have combined reliabilities. For pure IP-connected configurations, the reliability designation is also per port network.

The following tables summarize reliability levels for systems with Linux-based media servers. Reliability definitions for pre-Linux-based switches (CSI) are unchanged.

**Note:**

The terms control and bearer mean control network and bearer network, respectively. More detailed definitions of reliability levels, including the circuit packs involved, are given in the Hardware Guide for Avaya Communication Manager, 555-245-207.

Table 1: Reliability levels (per system) for Linux-based systems

<table>
<thead>
<tr>
<th></th>
<th>Simplex</th>
<th>Duplex</th>
<th>High</th>
<th>Critical</th>
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<td><strong>S8500</strong></td>
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<td></td>
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<tr>
<td>(pre-3.0 releases)</td>
<td>one server</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td></td>
<td>single control</td>
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<td></td>
<td>single bearer</td>
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<tr>
<td><strong>S87xx</strong></td>
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<td></td>
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<tr>
<td>Multiconnect (pre-3.0 releases)</td>
<td>NA</td>
<td>two servers</td>
<td>two servers</td>
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<tr>
<td>IP Connect (pre-3.0 releases)</td>
<td></td>
<td>single control</td>
<td>duplicated control</td>
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<td></td>
<td></td>
<td>single bearer</td>
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<td><strong>S87xx</strong></td>
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<tr>
<td>IP Connect (Release 3.0 and later)</td>
<td></td>
<td>two servers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>single control</td>
<td>duplicated control</td>
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<tr>
<td></td>
<td></td>
<td>single bearer</td>
<td>single bearer</td>
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Table 2: Reliability levels (per PN) for Release 3.0 Linux-based systems

<table>
<thead>
<tr>
<th></th>
<th>Duplex</th>
<th>High</th>
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<tr>
<td><strong>S87xx</strong></td>
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<tr>
<td>IP Connect (Release 3.0 and later)</td>
<td>two servers</td>
<td>two servers</td>
<td></td>
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<tr>
<td></td>
<td>single control</td>
<td>duplicated control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>single bearer</td>
<td>single bearer</td>
<td></td>
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For more information on conversions, see Conversions on page 759.
## Resources

In completing the procedures in this book, you may need to refer to other books. Here is a partial list of books contained on the *Documentation for Avaya Communication Manager 3.0, Media Gateways and Servers* CD, 03-300151.

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How this book is designed and organized

This book is designed to be used in several ways. You may print out a

- section, such as Migrations, that includes all the chapters and modules within that section
- chapter that includes all the modules contained in that chapter
- module, which is designed to stand alone.

Many modules have tasks that need to be done before you go on site. These prerequisite steps are listed in the chapter preceding the module or in the module itself. Some modules may have tasks that you need to do after completing the tasks in that module. These postrequisites may point to another module or other documentation.

The following table provides links to the sections, chapters, and modules contained in this book:

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<td>Presents the tasks required to migrate an S8300 Media Server (and all compatible Media Modules) from a G350 Media Gateway to a G700 Media Gateway.</td>
</tr>
<tr>
<td><strong>Conversions</strong> on page 759</td>
<td></td>
</tr>
<tr>
<td>Chapter 7: Converting PNs to IP Connect on page 765</td>
<td>Introduces the modules associated with converting to an IP-connect configuration.</td>
</tr>
<tr>
<td>Converting some or all direct connect port networks to IP connect on page 771</td>
<td>Presents the tasks required to convert an S8500 or S8700 series media server from a direct connect configuration to an IP-connect configuration.</td>
</tr>
<tr>
<td>Converting some or all CSS port networks to IP connect on page 803</td>
<td>Presents the tasks required to convert an S8700 series media server from a CSS (multi-connect configuration) to an IP-connect configuration.</td>
</tr>
<tr>
<td>Converting some or all ATM port networks to IP connect on page 837</td>
<td>Presents the tasks required to convert an S8700 series media server from an ATM (multi-connect configuration) to an IP-connect configuration.</td>
</tr>
<tr>
<td>Chapter 8: Converting the Media Server Mode on page 867</td>
<td>Introduces the modules associated with converting to a different mode (new function).</td>
</tr>
</tbody>
</table>
### Section, Chapter, Module

<table>
<thead>
<tr>
<th>Section, Chapter, Module</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Converting S8300 ICC mode to LSP mode</strong> on page 877</td>
<td>Presents the tasks required to convert an S8300 Media Server configured in the ICC mode to an S8300 Media Server configured in the LSP mode.</td>
</tr>
<tr>
<td><strong>Converting S8300 LSP mode to ICC mode</strong> on page 869</td>
<td>Presents the tasks required to convert an S8300 Media Server configured in the LSP mode to an S8300 Media Server configured in the ICC mode.</td>
</tr>
<tr>
<td>Converting an S8500 Media Server main to an S8500 ESS</td>
<td>Points to the procedures in the ESS User Guide.</td>
</tr>
<tr>
<td>Converting an S8500 MBS to S8500 ESS</td>
<td>Points to the procedures in the ESS User Guide.</td>
</tr>
<tr>
<td>Converting an S8700 series MBS to S8700 series ESS</td>
<td>Points to the procedures in the ESS User Guide.</td>
</tr>
<tr>
<td>Converting an S8700 series media server main to S8700 series ESS</td>
<td>Points to the procedures in the ESS User Guide.</td>
</tr>
<tr>
<td>Converting an S8700 series ESS to an S8700 series media server main</td>
<td>Points to the procedures in the ESS User Guide.</td>
</tr>
<tr>
<td><strong>Appendix A: Accessing the media server</strong> on page 883</td>
<td>Describes the various ways to access the media servers for administration, including physical connection methods (laptop, modem, LAN), login methods (Web Interface, telnet, P330 Device Manager for G700), Avaya Site Administration and network and browser settings</td>
</tr>
</tbody>
</table>

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5 of 5
Upgrades

An *upgrade* is an installation of a newer release of software on a media server or a newer version of firmware on a hardware component. Components include media gateways, media modules, Ethernet switches, and programmable circuit packs.

**Note:**

This book covers upgrades to Linux-based media servers only. For information on upgrading Communication Manager on the DEFINITY Server CSI, see *Installation, Upgrades, and Additions for Avaya CMC1 Media Gateways*, 555-233-118.

The most common type of upgrade is updating Avaya Communication Manager on a media server. Upgrades can be either major or minor (a dot release). On occasion an upgrade requires a change in hardware, such as the hard drive.

On occasion it is necessary to install a service pack in between releases of Avaya Communication Manager. A service pack is also known as a software update or patch. This process updates a portion of Communication Manager without changing the release. On occasion, an upgrade may require a pre-upgrade or post-upgrade service pack or both.

Another type of upgrade is firmware on various hardware components. These components include

- Branch media gateways, such as G150, G350, and G700
- Media modules on the branch media gateways
- Programmable TN circuit packs
- Ethernet switches, such as the C-363T or C-364T

This section does not cover upgrading a DEFINITY switch to a Linux-based media server. This process is called a migration; see [Migrations](#) on page 233.
Software upgrades

The software upgrades in this section cover upgrading Avaya Communication Manager on S8300, S8500, and S8700 Series Media Servers. Two different processes are available for upgrading Avaya Communication Manager on an existing, registered media server, depending on the software release:

- Upgrading using the Maintenance Web Interface
- Upgrading using the Upgrade Tool

In either case make sure you have the CD-ROM with the latest release of Avaya Communication Manager ready to install.

When upgrading an S8300 Media Server, there are two upgrade paths:

- Upgrading from Release 1.x to 3.0, which requires
  - a new license file and a new Avaya authentication file
  - an interim upgrade to Release 2.0 or R2.1 to replace the S8300 with an S8300B Media Server
- Upgrading from Release 2.x to Release 3.0, which requires
  - a new license file
  - a pre-upgrade service pack (software update).

When upgrading an S8500 Media Server, there is one upgrade path:

- Upgrading from Release 2.x to Release 3.0, which requires
  - a new license file
  - a pre-upgrade service pack (software update).

When upgrading an S8700 Series Media Server, there are two upgrade paths:

- Upgrading from Release 1.x to 3.0, which requires
  - a new license file and a new Avaya authentication file
  - an interim upgrade to Release 1.3.x
- Upgrading from Release 2.x to Release 3.0, which requires
  - a new license file
  - a pre-upgrade service pack (software update).
Service affecting upgrades

Some upgrades of Communication Manager are service affecting, meaning existing calls are dropped and new calls cannot be established. Other upgrades are either connection or call preserving.

Connection preserving calls means that stable calls (the talk path is established) are maintained during the upgrade but new calls or call transfers from stable calls are not processed. Call preserving calls means that stable calls are maintained during the upgrade and new calls or call transfers are processed. See Table 1: Connection and call preserving upgrades for information on which upgrades are connection or call preserving.

Table 1: Connection and call preserving upgrades

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Connection preserving</th>
<th>Call preserving</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8300 (pre-R3.0)</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>S8300 (R3.0 and later)</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>S8500</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>S8700 series (pre-R3.0)</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>S8700 series (R3.0 or later)</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

Prerequisites common to all software upgrades

You must complete several tasks before going on site and beginning the upgrade. The following list of prerequisites are common to most upgrade modules. For pre-site tasks, see Pre-site checklist on page 40. For information on getting a new license file, see License and Avaya authentication files on page 42.
### Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that your Services laptop has the appropriate hardware.</td>
<td>Correct hardware components include:</td>
</tr>
<tr>
<td></td>
<td>● 32 MB RAM</td>
</tr>
<tr>
<td></td>
<td>● 40 MB available disk space</td>
</tr>
<tr>
<td></td>
<td>● direct Ethernet cable</td>
</tr>
<tr>
<td></td>
<td>● serial cable and adapter</td>
</tr>
<tr>
<td></td>
<td>● RS-232 port connector</td>
</tr>
<tr>
<td></td>
<td>● Network interface card (NIC) with a 10/100 BaseT Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on</td>
</tr>
<tr>
<td></td>
<td>each end (MDI to MDI-X)</td>
</tr>
<tr>
<td></td>
<td>● CD-ROM drive</td>
</tr>
<tr>
<td>Verify that your Services laptop has the appropriate software.</td>
<td>Correct software components include:</td>
</tr>
<tr>
<td></td>
<td>● Windows 2000/XP operating system</td>
</tr>
<tr>
<td></td>
<td>● Terminal emulation program: HyperTerminal or other</td>
</tr>
<tr>
<td></td>
<td>● TCP/IP networking software: bundled with Windows OS</td>
</tr>
<tr>
<td></td>
<td>● Web browser: Internet Explorer 5.0 or later</td>
</tr>
<tr>
<td>Obtain appropriate logins and passwords for all equipment and software.</td>
<td>For example, obtain logins and passwords for the following components:</td>
</tr>
<tr>
<td></td>
<td>● Media Server</td>
</tr>
<tr>
<td></td>
<td>● Media Gateway</td>
</tr>
<tr>
<td></td>
<td>● auxillary equipment</td>
</tr>
<tr>
<td></td>
<td>● Communication Manager</td>
</tr>
<tr>
<td></td>
<td>These logins and passwords include the customer's equipment.</td>
</tr>
<tr>
<td>Obtain the SID for the Media Servers</td>
<td>To updating an existing license file, you must have a serial number to obtain it.</td>
</tr>
<tr>
<td></td>
<td>If a media gateway, you need the serial number from the media gateway.</td>
</tr>
<tr>
<td></td>
<td>If it’s a media server, you need the serial number from the reference IPSI.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre- and post-upgrade (if required) service packs on your laptop.</td>
<td>Check which service packs you need and download the files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. But for the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click <strong>Downloads</strong> and select the product.</td>
</tr>
<tr>
<td>Verify that you have the updated license and authentication files</td>
<td>You need to install an updated license and authentication file for this major upgrade. Obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only; direct connect to media server only)</td>
<td>If the customer’s media server does not have a static craft password, call the ASG Conversant number, 800-248-1234 or 720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID for the FL or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary only if the configuration of the customer’s INADS alarming modem has changed.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  - service packs  
  - license file (if required)  
  - authentication file (if required)  
  - firmware for programmable circuit packs |
License and Avaya authentication files

Use Remote Feature Activation (RFA) to obtain the Communication Manager license and Avaya authentication files. RFA is a Web-based application, available to Avaya employees and authorized BusinessPartners, that enables you to create and deploy license files for all Communication Manager product platforms. The RFA Web site is at http://rfa.avaya.com. For specific information on RFA and how to generate license and Avaya authentication files, go to the the RFA Information page available on the RFA Web site.

Note:
To access the RFA application, you must complete the RFA online training and have received access authorization.

To generate a license file, you need the following information:

● Your personal Single Sign-On (SSO) for the RFA Web site authentication login.

● SAP order number

● Required customer information

● For a new license, the serial number of one TN2312BP Internet Protocol Server Interface (IPSI) circuit pack designated the reference IPSI.

● For an updated license, the RFA system ID (SID) for the existing media server, which is necessary to locate the existing license.

● Internet access to the RFA Web page with Internet Explorer 5.0 or higher.

Before arriving on site, download the license and Avaya authentication files to the services laptop. The license and Avaya authentication files are installed during the installation process. Once the Avaya authentication files are installed, Avaya services logins to the media server are protected by a challenge/response system called Access Security Gateway (ASG). The ASG challenge/response protocol confirms the validity of each user, reducing the opportunity for unauthorized access.

When finished installing the Avaya authentication file, Avaya Communication Manager has a password for the craft login. This password is unique to the customer’s server. You can use the password the next time you log in as craft, provided you access the media server through the services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access still requires an ASG challenge/response. The revised password is recorded by RFA and is obtained from ASG Conversant at 1-800-248-1234 or 1-720-444-5557.
Firmware upgrades

Several pieces of equipment require firmware upgrades periodically. This equipment includes the IP Server Interface (TN2312AP/BP), programable circuit packs (TN799DP, TN2302AP, TN2602AP), and Avaya Ethernet switches (C-363T, C-364T), if being used.

It is important that the programmable circuit packs be on the most current version, particularly the TN2312AP/BP IP Server Interface. Many features available with release 3.0 of Avaya Communication Manager that involve these circuit packs cannot be activated unless the circuit packs are on the most current version.

Firmware for these products are available from the Avaya Support Web site (http://avaya.com/support).

Upgrade chapters

All modules for a particular type of upgrade are contained in a separate chapter. For example, all Linux-based media server upgrades are in one chapter and all firmware upgrades are in another chapter. This section contains the following chapters and modules:

- **Chapter 2: Upgrading Software on Media Servers** on page 45
  - Upgrading Communication Manager from 1.x to 3.0 on an S8300 Media Server on page 51
  - Upgrading Communication Manager from 2.x to 3.0 on an S8300 Media Server on page 61
  - Upgrading Communication Manager on Avaya S8500 Media Server Using Maintenance Web Interface on page 67
  - Upgrading Communication Manager on Avaya S8500 Media Server Using the Upgrade Tool on page 87
  - Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0 on page 105
  - Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web Interface on page 155
  - Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool on page 191

- **Chapter 3: Upgrading Firmware on TN circuit packs and Ethernet switches** on page 217
  - Upgrading firmware on the IPSIs on page 219
  - Upgrading firmware on programmable TN circuit packs on page 229
  - Upgrading firmware on the Avaya Ethernet Switch on page 231
Additional documentation

Avaya recommends that you have the documents listed in Chapter 1: Introduction on hand for the upgrade. These documents are included on the documentation CD: Documentation for Avaya Communication Manager, Media Gateways and Servers (03-300151).
Chapter 2:  Upgrading Software on Media Servers

The software upgrades in this section cover upgrading Avaya Communication Manager on S8300, S8500, and S8700 Series Media Servers. Two different processes are available for upgrading Avaya Communication Manager on an existing, registered media server, depending on the software release:

● Upgrading using the Maintenance Web Interface
● Upgrading using the Upgrade Tool

In either case make sure you have the CD-ROM with the latest release of Avaya Communication Manager ready to install.

When upgrading an S8300 Media Server, there are two upgrade paths:

● Upgrading from Release 1.x to 3.0, which requires
  - an updated license file and Avaya authentication file
  - an interim upgrade to Release 2.0 or R2.1 to replace the S8300 with an S8300B Media Server

● Upgrading from Release 2.x to Release 3.0, which requires
  - an updated license file
  - a pre-upgrade service pack (software update).

When upgrading an S8500 Media Server, there is one upgrade path:

● Upgrading from Release 2.x to Release 3.0, which requires
  - an updated license file
  - a pre-upgrade service pack (software update).

When upgrading an S8700 Series Media Server, there are two upgrade paths:

● Upgrading from Release 1.x to 3.0, which requires
  - an updated license file and Avaya authentication file
  - a pre-upgrade service pack (software update)
  - an interim upgrade to Release 1.3.x for some paths

● Upgrading from Release 2.x to Release 3.0, which requires
  - an updated license file
  - a pre-upgrade service pack (software update).
Service affecting upgrades

Some upgrades of Communication Manager are service affecting, meaning existing calls are dropped and new calls cannot be established. Other upgrades are either connection or call preserving.

Connection preserving calls means that stable calls (the talk path is established) are maintained during the upgrade but new calls or call transfers from stable calls are not processed. Call preserving calls means that stable calls are maintained during the upgrade and new calls or call transfers are processed. See Table 2: Connection and call preserving upgrades for information on which upgrades are connection or call preserving.

Table 2: Connection and call preserving upgrades

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Connection preserving</th>
<th>Call preserving</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8300 (pre-R3.0)</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>S8300 (R3.0 and later)</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>S8500</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>S8700 series (pre-R3.0)</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>S8700 series (R3.0 or later)</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

Prerequisites common to all upgrades

You must complete several tasks before going on site and beginning the upgrade. The following list of prerequisites are common to most upgrade modules. For pre-site tasks, see Pre-site checklist on page 47. For information on getting a new license file, see License and Avaya authentication files on page 49.
## Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Verify that your Services laptop has the appropriate hardware.** | Correct hardware components include:  
  ● 32 MB RAM  
  ● 40 MB available disk space  
  ● direct Ethernet cable  
  ● serial cable and adapter  
  ● RS-232 port connector  
  ● Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  ● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  ● CD-ROM drive |
| **Verify that your Services laptop has the appropriate software.** | Correct software components include:  
  ● Windows 2000/XP operating system  
  ● Terminal emulation program: HyperTerminal or other  
  ● TCP/IP networking software: bundled with Windows OS  
  ● Web browser: Internet Explorer 5.0 or later |
| **Obtain appropriate logins and passwords for all equipment and software.** | For example, obtain logins and passwords for the following components:  
  ● Media Server  
  ● Media Gateway  
  ● auxillary equipment  
  ● Communication Manager  
  These logins and passwords include the customer’s equipment. |
| **Obtain the SID for the Media Servers** | To updating an existing license file, you must have a serial number to obtain it.  
  If a media gateway, you need the serial number from the media gateway.  
  If it’s a media server, you need the serial number from the reference IPSI. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre- and post-upgrade (if required) service packs on your laptop.</td>
<td>Check which service packs you need and download the files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. But for the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Verify that you have the updated license and authentication files</td>
<td>You need to install an updated license and authentication file for this major upgrade. Obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only; direct connect to media server only)</td>
<td>If the customer’s media server does not have a static craft password, call the ASG Conversant number, 800-248-1234 or 720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID for the FL or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary only if the configuration of the customer’s INADS alarming modem has changed.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  - service packs  
  - license file (if required)  
  - authentication file (if required)  
  - firmware for programmable circuit packs |
Prerequisites common to all upgrades

License and Avaya authentication files

Use Remote Feature Activation (RFA) to obtain the Communication Manager license and Avaya authentication files. RFA is a Web-based application, available to Avaya employees and authorized BusinessPartners, that enables you to create and deploy license files for all Communication Manager product platforms. The RFA Web site is at http://rfa.avaya.com. For specific information on RFA and how to generate license and Avaya authentication files, go to the the RFA Information page available on the RFA Web site.

Note:
To access the RFA application, you must complete the RFA online training and have received access authorization.

To generate a license file, you need the following information:

- Your personal Single Sign-On (SSO) for the RFA Web site authentication login.
- SAP order number
- Required customer information
- For a new license, the serial number of one TN2312BP Internet Protocol Server Interface (IPSI) circuit pack designated the reference IPSI.
- For an updated license, the RFA system ID (SID) for the existing media server, which is necessary to locate the existing license.
- Internet access to the RFA Web page with Internet Explorer 5.0 or higher.

Before arriving on site, download the license and Avaya authentication files to the services laptop. The license and Avaya authentication files are installed during the installation process.

Once the Avaya authentication files are installed, Avaya services logins to the media server are protected by a challenge/response system called Access Security Gateway (ASG). The ASG challenge/response protocol confirms the validity of each user, reducing the opportunity for unauthorized access.

When finished installing the Avaya authentication file, Avaya Communication Manager has a password for the craft login. This password is unique to the customer’s server. You can use the password the next time you log in as craft, provided you access the media server through the services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access still requires an ASG challenge/response. The revised password is recorded by RFA and is obtained from ASG Conversant at 1-800-248-1234 or 1-720-444-5557.
Upgrade modules

The following modules are contained in this chapter:

- Upgrading Communication Manager from 1.x to 3.0 on an S8300 Media Server on page 51
- Upgrading Communication Manager from 2.x to 3.0 on an S8300 Media Server on page 61
- Upgrading Communication Manager on Avaya S8500 Media Server Using Maintenance Web Interface on page 67
- Upgrading Communication Manager on Avaya S8500 Media Server Using the Upgrade Tool on page 87
- Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0 on page 105
- Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web Interface on page 155
- Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool on page 191
Introduction

This module provides a high-level list of tasks for upgrading Communication Manager from a pre-2.1 release to a 3.0 release on an S8300 in either ICC or LSP mode.

Note:
An upgrade to Avaya Communication Manager 2.1 or later requires an S8300B Media Server, which means replacing the S8300A Media Server, if it is in use.

To complete these tasks, you will need the following additional documents:

- **Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server**, 555-234-100, Issue 8.1 June 2005. To obtain this document, go to [support.avaya.com](http://support.avaya.com) and navigate to **S8300 > Installations, Migrations, Upgrades & Configurations**; then select the appropriate document.

- **Administrator Guide for Avaya Communication Manager**, 03-300509.

In this scenario, an S8300A configured as either an ICC or an LSP, and running Communication Manager pre-R2.1 release, is replaced by an S8300B with a blank hard drive.

Follow the detailed procedures in **Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server**, 555-234-100, Issue 8.1, June 2005, for most of the tasks in this upgrade scenario.
## Pre-requisites

Perform the tasks in this section before going to the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Obtain pre-upgrade service pack, if necessary.</td>
<td>If you are upgrading software from certain releases of Communication Manager, you may need to obtain a pre-upgrade service pack (see Table 3: R3.0 Upgrade requirements depending on pre-upgrade release on page 53)</td>
</tr>
<tr>
<td>2. Obtain a replacement S8300B Media Server, if needed.</td>
<td>If you are upgrading an S8300A to software release 3.0, you must replace the S8300A with an S8300B Media Server.</td>
</tr>
<tr>
<td>3. Create/update license and authentication files on the RFA web site.</td>
<td>If the S8300 is in LSP mode, and the primary controller that will support the LSP is being migrated to Communication Manager 3.0, you need to create an updated license file for the primary controller.</td>
</tr>
<tr>
<td>4. Obtain post-upgrade service pack file.</td>
<td>Go to <a href="http://support.avaya.com">http://support.avaya.com</a> and click Downloads to obtain the service pack file available for the Communication Manager release to which you are upgrading. (For example, release 3.0, load 336.) Download it and take it to the site.</td>
</tr>
</tbody>
</table>
| 5. Obtain the Communication Manager 3.0 software CD, and a USB CD-ROM drive, if necessary. | ● If you have a TFTP server configured on your services laptop, you can read the Server CD and transfer the software to the S8300B Media Server from your laptop.  
● Alternatively, the Communication Manager software can be read from an external USB CD-ROM drive. |
The upgrade may require a pre-upgrade service pack, depending on the release of Avaya Communication Manager from which you are upgrading. Table 3: R3.0 Upgrade requirements depending on pre-upgrade release describes when a service pack is required.

**Table 3: R3.0 Upgrade requirements depending on pre-upgrade release**

<table>
<thead>
<tr>
<th>Software Release Before Upgrade to Release 3.0</th>
<th>Upgrade Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 1.1.x and all other 1.x.x releases not listed below R011x.01.xxx.x</td>
<td>No pre-upgrade service pack required. You need to back up only translation files. Once the hard drive is remastered and the new software is installed on the S8300B, you must reconfigure the media server as if it were a new installation using the Avaya Installation Wizard.</td>
</tr>
<tr>
<td>Release 1.2.x, 1.3.0. R011x.02.110.4 R011x.03.526.6</td>
<td>You must apply a pre-upgrade service pack to the system files before backing up the system and translations files using Linux Migration Backup/Restore (LMBR). Once the hard drive is remastered and the new software is installed on the S8300B, you can restore all the files using View/Restore Data¹.</td>
</tr>
<tr>
<td>Release 1.3.1.x R011x.03.1.531.0 R011x.03.1.5xx.x</td>
<td>No pre-upgrade service pack required. Back up the system and translations files using Linux Migration Backup/Restore (LMBR). Once the hard drive is remastered and the new software is installed on the S8300B, you can restore all the files using View/Restore Data.</td>
</tr>
<tr>
<td>Release 2.x R012x.00.0.000.0 R012x.01.x.xxx.x</td>
<td>No pre-upgrade service pack is required. Back up the system and translations files using Backup Now². Once the hard drive is remastered and the new software is installed on the S8300B, you can restore the files using View/Restore Data.</td>
</tr>
</tbody>
</table>

¹. The LMBR backup contains backup sets for the translations, OS and system files.
². The Data backup contains backup sets for the translations, OS and system files, security files, and AUDIX data, if any
**Tasks checklist**

The tasks include:

1. If IA770 is in use (ICC mode), get IA770 data and stop IA770.
2. Install pre-upgrade service pack, if necessary.
3. Perform data backup
4. Replace the S8300A with the S8300B
5. Upgrade the S8300B.
6. Restore data
8. Install license file.
10. Upgrade G700 Media Gateway firmware
11. Implement any additional design changes to voice and/or voice messaging networks.

**Tasks**

Perform the tasks in this section at the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Go to the standard documentation</strong></td>
<td></td>
</tr>
</tbody>
</table>


To upgrade the S8300, you complete selected tasks from Chapters 3 and 5. You need to complete only some of the tasks in these chapters. The specific tasks are identified by page number in the left-hand column. The subtasks to perform or skip are listed in the right-hand column.

It is important to note where the task is performed. Most of the tasks are done on a server — on the S8300, or on the primary controller for the S8300 (if the S8300 is configured as an LSP). The headings below indicate on which of these devices the task is performed.

---

1 of 6
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On the S8300 (ICC or LSP)</strong></td>
<td></td>
</tr>
<tr>
<td>1. If IA770 is in use (ICC mode), get IA770 data and stop IA770.</td>
<td>Page 230.</td>
</tr>
<tr>
<td>2. Install pre-upgrade service pack, if necessary.</td>
<td>Page 237.</td>
</tr>
<tr>
<td>3. Perform data backup</td>
<td>Backup according to the release from which you are upgrading. See Table 3: R3.0 Upgrade requirements depending on pre-upgrade release on page 53 For the first backup, you will not restore these data sets. It is important to have them in case it is necessary to revert to the original configuration.</td>
</tr>
<tr>
<td>4. Record configuration information</td>
<td>If you have not already done so, in the Record Configuration Information task, record all of the configuration information, regardless of the release from which you are upgrading. You will re-enter some of this information after the upgrade.</td>
</tr>
</tbody>
</table>
| 5. Replace the S8300A with the S8300B | • Shut down the S8300A.  
• Remove the S8300A from the gateway. (If the gateway is a G700, the LED panel must be removed together with the S8300A.)  
• Re-insert the S8300B (together with the LED panel for a G700) into the gateway. |
### Upgrading Communication Manager from 1.x to 3.0 on an S8300 Media Server

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| 6. Upgrade the S8300B.  
Starting on page 244, ending on page 255. | - Set Telnet parameters  
- Remaster hard drive and install upgrade software  
- **ICC Mode**: If using IA770, select *yes* on Install AUDIX screen  
- **LSP Mode**: Select *No* on Install AUDIX screen.  
- Verify software version  
- Copy files to the S8300 (license file, authentication file, service pack file) |
Page 255. | |
| 8. Restore data  
Page 256. | Select the restore procedure according to the release from which you upgraded.  
- **ICC Mode**: Restore Translations and AUDIX files, if used.  
- **LSP Mode**: No data restore required. |
| 9. Set time, date, and time zone.  
Page 261. | **ICC Mode**: The time zone of the new ICC must be set, and all LSPs under the ICC’s control must be set to the new ICC’s time zone.  
**LSP Mode**: The time of the LSP must be set to the same time zone as its primary controller, even if the LSP is physically located in a different time zone. |
| 10. Install license file.  
Starting on page 263. | |
| 11. Install authentication file.  
Starting on page 264. | |
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| 12. Verify that the media gateway has registered with either the primary controller (LSP mode) or the S8300B (ICC mode). | - Open a SAT session with either the primary controller (LSP mode) or the S8300B (ICC mode) and enter list media-gateway.  
  Verify that the Registered field (Reg?) is set to y.  
  - Place a test call.                                                  |
| 13. Reboot LSPs (if any)                                            | At the LSP’s SAT prompt, enter reset system 4.                                                                                              |
| 14. Verify LSP translations date and time (if any).                 | To view the LSP’s translations date and time, enter list configuration software.                                                             |
| **ICC mode: On LSPs of the S8300B (if any)**                       |                                                                                                                                              |
| **ICC mode: On the S8300B**                                         |                                                                                                                                              |
| 15. Verify LSP status (if any)                                      | - At the ICC’s SAT prompt, enter display lsp.                                                                                               
  The LSP name and IP address should be listed. The Service State? field should be in-service/idle.  
  - The Translations Updated should match the translations date and time on the ICC.  
  To view the ICC’s translations date and time, enter list configuration software. |
| 16. If the LSPs (if any) translations have not synthesized with the ICC, invoke translation synchronization. | - On the ICC, enter the Linux command filesync -a trans.  
  - Ensure that the translation synchronization completed successfully.  
  Wait several minutes, then check the timestamp of the LSP’s translation files using the SAT command display lsp on the ICC. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LSP mode: On the S8300B's primary controller</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 17. Verify S8300B LSP status (if any) | ● At the primary controller’s SAT prompt, enter `display lsp`.  
The S8300B LSP name and IP address should be listed. The **Service State?** field should be **in-service/idle**.  
● The **Translations Updated** should match the translations date and time on the primary controller. To view the primary controller’s translations date and time, enter `list configuration software`. |
| 18. If the S8300B LSP’s translations have not synchronized with the primary controller, invoke translation synchronization. | ● On the primary controller, enter the Linux command `filesync -a trans`.  
● Ensure that the translation synchronization completed successfully.  
Wait several minutes, then check the timestamp of the LSP’s translation files using the SAT command `display lsp` on the primary controller. |
| 19. Upgrade G700 Media Gateway firmware | Using the Avaya Installation Wizard:  
● Upgrade G700 firmware  
● Upgrade media module firmware |
| 20. Set Rapid Spanning Tree | |
| **Page 267** | |
| **Page 268.** | |
## Tasks

### Post-upgrade tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Implement any additional design changes to voice and/or voice messaging networks.</td>
<td></td>
</tr>
<tr>
<td>22. Re-register the S8300B (LSP mode only) with the Avaya servicing center.</td>
<td></td>
</tr>
</tbody>
</table>
Introduction

This module provides a high-level list of tasks for upgrading Communication Manager from 2.x to 3.0 on an S8300B in either ICC or LSP mode.

Note:
It is assumed that the media server in use is an S8300B running Communication Manager release 2.1 or higher.

To complete these tasks, you will need the following additional documents:

- Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100, Issue 8.1, June 2005. To obtain this document, go to http://support.avaya.com and navigate to S8300 > Installations, Migrations, Upgrades & Configurations; then select the appropriate document.

- Administrator Guide for Avaya Communication Manager, 03-300509.

Follow the detailed procedures in Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100, Issue 8.1, June 2005, for most of the tasks in this upgrade scenario.
Pre-requisites

Perform the tasks in this section before going to the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create/update license and authentication files on the RFA web site.</td>
<td>● If the S8300B is in LSP mode, and the primary controller that will support the LSP is being migrated to Communication Manager 3.0, you need to create a new license file for the primary controller.</td>
</tr>
<tr>
<td>2. Obtain post-upgrade service pack file.</td>
<td>Go to <a href="http://support.avaya.com">http://support.avaya.com</a> and click Downloads to download the service pack file available for the Communication Manager release to which you are upgrading. (For example, release 3.0, load 336.) Download it and take it to the site.</td>
</tr>
<tr>
<td>3. Obtain the Communication Manager 3.0 software CD, and a USB CD-ROM drive, if necessary.</td>
<td>● If you have a TFTP server configured on your services laptop, you can read the Server CD and transfer the software to the S8300B Media Server from your laptop. ● Alternatively, the Communication Manager software can be read from an external USB CD-ROM drive.</td>
</tr>
</tbody>
</table>

Tasks checklist

The tasks include:

1. **If IA770 is in use (ICC mode), get IA770 data and stop IA770.**
2. **Backup all system files — translations, OS, and security backup sets.**
3. **Install pre-upgrade service pack.**
4. **Install the updated license and authentication files**
5. **Save Translations**
6. **Upgrade the S8300B, using the Web Interface, Manage Software screens.**
7. **Upgrade G700 Media Gateway firmware**
8. **Implement any additional design changes to voice and/or voice messaging networks.**
Perform the tasks in this section at the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| **Go to the standard documentation** | Use *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100, Issue 8.1, June 2005.*

To upgrade the S8300, you complete selected tasks from Chapters 3 and 6. You need to complete only some of the tasks in these chapters. The specific tasks are identified by page number in the left-hand column. The subtasks to perform or skip are listed in the right-hand column.

It is important to note where the task is performed. Most of the tasks are done on a server — on the S8300, or on the primary controller for the S8300 (if the S8300 is configured as an LSP). The headings below indicate on which of these devices the task is performed.

<table>
<thead>
<tr>
<th>On the S8300 (ICC or LSP)</th>
<th></th>
</tr>
</thead>
</table>
| 1. If IA770 is in use (ICC mode), get IA770 data and stop IA770. | **Page 292.**

**ICC mode:** These backup sets will not be restored on the S8300B. They should be backed up in case it is necessary to revert to the original configuration.

**LSP mode:** Backup only OS and security sets. These backup sets will not be restored on the S8300B. They should be backed up in case it is necessary to revert to the original configuration.

| 2. Backup all system files — translations, OS, and security backup sets. | **Page 296.**

**Start on page 296.**

**ICC mode:** These backup sets will not be restored on the S8300B. They should be backed up in case it is necessary to revert to the original configuration.

**LSP mode:** Backup only OS and security sets. These backup sets will not be restored on the S8300B. They should be backed up in case it is necessary to revert to the original configuration.

| 3. Install pre-upgrade service pack. | **Page 299.**

You must install this service pack to enable the S8300B Web Interface to upload and install the CM 3.0 software.

| 4. Upgrade the S8300B, using the Web Interface, Manage Software screens. | **Starting on page 307, ending on page 311.**

- Copy files from the Server CD.
- Install files on the S8300B.
- Make upgrade permanent. |
### Upgrading Communication Manager from 2.x to 3.0 on an S8300 Media Server

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Install post-upgrade service pack file.</td>
<td>Skip the Verify Media Server Configuration section.</td>
</tr>
<tr>
<td>Page 312.</td>
<td></td>
</tr>
<tr>
<td>6. Install the updated license and authentication files</td>
<td></td>
</tr>
<tr>
<td>Starting on page 313.</td>
<td></td>
</tr>
<tr>
<td>7. Save Translations</td>
<td></td>
</tr>
<tr>
<td>Page 314.</td>
<td></td>
</tr>
</tbody>
</table>
| 8. Verify that the media gateway has registered with either the primary controller (LSP mode) or the S8300B (ICC mode). | - Open a SAT session with either the primary controller (LSP mode) or the S8300B (ICC mode) and enter `list media-gateway`.  
  Verify that the Registered field (`Reg?`) is set to `y`.  
- Place a test call.                                                                 |
| ICC mode: On LSPs of the S8300B (if any)                           |                                                                                                                                               |
| 9. Reboot LSPs (if any)                                            | At the LSP's SAT prompt, enter `reset system 4`.                                                                                               |
| 10. Verify LSP translations date and time (if any)                  | To view the LSP’s translations date and time, enter `list configuration software`.                                                             |
| ICC mode: On the S8300B                                             |                                                                                                                                               |
| 11. Verify LSP status (if any)                                      | - At the ICC’s SAT prompt, enter `display lsp`. The LSP name and IP address should be listed. The `Service State?` field should be `in-service/idle`.  
  - The `Translations Updated` should match the translations date and time on the ICC. To view the ICC’s translations date and time, enter `list configuration software`. |

2 of 4
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| 12. If the LSPs (if any) translations have not synchronized with the ICC, invoke translation synchronization. | ● On the ICC, enter the Linux command `filesync -a trans`.  
   ● Ensure that the translation synchronization completed successfully.  
   Wait several minutes, then check the timestamp of the LSP’s translation files using the SAT command `display lsp` on the ICC. |
| **LSP mode: On the S8300B’s primary controller**                                                                 |                                                                                                                                                                                                             |
| 13. Verify S8300B LSP status (if any)                                                       | ● At the primary controller’s SAT prompt, enter `display lsp`.  
   The S8300B LSP name and IP address should be listed. The **Service State?** field should be `in-service/idle`.  
   ● The **Translations Updated** should match the translations date and time on the primary controller. To view the primary controller’s translations date and time, enter `list configuration software`. |
| 14. If the S8300B LSP’s translations have not synchronized with the primary controller, invoke translation synchronization. | ● On the primary controller, enter the Linux command `filesync -a trans`.  
   ● Ensure that the translation synchronization completed successfully.  
   Wait several minutes, then check the timestamp of the LSP’s translation files using the SAT command `display lsp` on the primary controller. |
| 15. Upgrade G700 Media Gateway firmware                                                     | Using the Avaya Installation Wizard:  
   ● Upgrade G700 firmware  
   ● Upgrade media module firmware                                                                                                                                                                           |
| 16. Set Rapid Spanning Tree                                                                 |                                                                                                                                                                                                             |

**Page 315.**

**Page 319.**

3 of 4
### Post-upgrade tasks

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Implement any additional design changes to voice and/or voice messaging networks.</td>
<td></td>
</tr>
<tr>
<td>18. Re-register the S8300B (LSP mode only) with the Avaya servicing center.</td>
<td></td>
</tr>
</tbody>
</table>

*4 of 4*
Upgrading Communication Manager on Avaya S8500 Media Server Using Maintenance Web Interface

This procedure is for upgrading Avaya Communication Manager on an existing, registered Avaya S8500 Media Server running Release 2.x of Avaya Communication Manager. This method uses the new Manage Software link on the Maintenance Web Interface. If the media server is running Release 2.1 or later, you may use the Upgrade Tool. See Upgrading Communication Manager on Avaya S8500 Media Server Using the Upgrade Tool.

⚠️ Important:
Upgrading from Release 2.x to Release 3.0 or later requires installing a pre-upgrade service pack (software update) before upgrading Communication Manager. This service pack supports the upgrade to Release 3.0. See Pre-upgrade service pack on page 68 for information on which service pack to use.

Upgrading from Release 2.x to Release 3.0 requires an updated license file. For information on generating a license file, see License and Avaya authentication files on page 49 in Upgrading Software on Media Servers on page 45.

⚠️ Important:
If you have Manual Backup Servers (MBS), you can no longer use them as they cannot be upgraded to Release 3.0. You can migrate the MBSs to Enterprise Survivable Servers (ESSs); see Avaya Enterprise Survivable Servers (ESS) User Guide (03-300428) for information.

Pre-requisites
You must complete several tasks before going on site and beginning the upgrade. For pre-site tasks, see Pre-site checklist on page 47 in Chapter 2: Upgrading Software on Media Servers on page 45.

TN2312AP/BP IPSI circuit pack upgrades
The TN2312AP/BP IPSI circuit packs must have the most recent release of the firmware before upgrading Communication Manager on the media server. Upgrade the IPSI firmware first. Go to Upgrading firmware on the IPSIs on page 219 for firmware upgrade procedures.
Pre-upgrade service pack

This upgrade requires a pre-upgrade service pack. The service pack filename differs, depending on which software load the media server is on. See Software release and load for the software load associated with each release.

⚠️ CAUTION:
If the customer’s system has Release 2.x of Communication Manager but has a field load other than those listed in the table, do not use this section to upgrade Communication Manager to Release 3.0. You must escalate.

<table>
<thead>
<tr>
<th>Software release of existing media server</th>
<th>Associated software load</th>
<th>Service pack filename</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 2.0</td>
<td>R012x.00.0.219.0</td>
<td>00.0.219.0-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.0.1</td>
<td>R012x.00.1.221.1</td>
<td>00.1.221.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1</td>
<td>R012x.01.0.411.7</td>
<td>01.0.411.7-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1.1</td>
<td>R012x.01.1.414.1</td>
<td>01.1.414.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2</td>
<td>R012x.02.0.111.4</td>
<td>02.0.111.4-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2.1</td>
<td>R012x.02.0.xxx.x</td>
<td>02.0.xxx.x-xxxx.tar.gz</td>
</tr>
</tbody>
</table>

Upgrade of LSPs and media gateways (if being used)

Note:
If the customer has no Branch Media Gateways or no local survivable processors (LSPs), skip these tasks and go to Access the Maintenance Web Interface on page 74.

If the media server is the primary controller for a G350 or G700 Media Gateway equipped with a local survivable processor (LSP), you must upgrade Communication Manager on the LSPs (S8300) before you upgrade Communication Manager on the primary controller. If the configuration is using G150, G350, or G700 Media Gateways and media modules and newer firmware exists for them, you must upgrade the firmware on them. The correct order is

● First, if using LSPs, upgrade Communication Manager on the S8300 Media Server to the latest version.
● Second, upgrade the firmware on the media gateway and media modules to the latest version.
● Third, upgrade Communication Manager on the primary controller (S8500 media server) to the latest version.

Upgrade of Communication Manager on the LSPs

For more detailed information on the upgrade process for LSPs, refer to Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100).

Note:
Although the LSPs remain registered with the primary controller, the LSPs will not accept translations if they are running an older version of Avaya Communication Manager than the primary controller.

You may use the Upgrade Tool, available on the S8500 Media Server, to upgrade Communication Manager on all the LSPs. To use the tool, however, the following files must be resident on the S8300 (LSP):
● Communication Manager
● License file
● Pre-upgrade service pack. The service pack must also be activated on each LSP.

For more detailed information on using the Upgrade Tool, refer to the job aid titled Job Aid: Upgrade Tool and Worksheets (555-245-757).

Stopping and starting LSPs

Before you upgrade the S8500 Media Server, you may want to stop call processing on the LSPs. This allows the media gateway and IP telephones to quickly reregister with the primary controller after the upgrade.

If you stop call processing on the LSPs, you must restart them when the primary controller upgrade is complete. In addition, stopping call processing on the LSPs has the following consequences:
● During the interchange between the active and standby media servers, analog and digital phone calls are dropped.
● New calls to or from IP phones cannot be made during the interchange.
● If the upgrade has problems such that service from both servers is lost, all phones will be out of service, including phones assigned to backup service on the LSPs.
If you do not stop call processing on the LSPs, all phones have service during the time the LSPs are controlling calls even if there is a problem with the primary controller’s upgrade. In addition, not stopping call processing on the LSPs has the following consequences:

- IP phones will most likely register to the appropriate LSP during the server upgrade.
- You must reset the LSPs when the primary controller upgrade is complete to reregister the IP phones to the primary controller.

Upgrade the LSPs

For detailed information on the upgrade process, see Chapter 12: "Manual upgrade of an existing S8300A to R3.0" in *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).

Upgrade firmware on media gateways and media modules

You may use the Upgrade Tool to upgrade the firmware on all the media gateways and media modules. To use the tool, however, the firmware files must be resident on the S8300.

For more detailed information on the firmware upgrade process, see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).

---

Upgrade tasks

**Pre-upgrade tasks:**

- Stop call processing on LSPs (if being used; optional) on page 72
- Connect to the media server on page 72

**Current configuration tasks:**

- Start a SAT session on page 72
- Check link status using SAT (optional) on page 73
- Record all busyouts using SAT on page 73
- Check clock synchronization using SAT on page 73
- Disable scheduled maintenance using SAT on page 74
- Check for translation corruption using SAT on page 74
- Access the Maintenance Web Interface on page 74
- Copy files to the media server on page 75
- Clear alarms on page 75
Upgrade tasks

- Back up recovery system files on page 76
- Verify the backup on page 76
- Suppress alarming on page 76

Upgrade tasks:

- Check software release on page 77
- Activate the pre-upgrade service pack on page 77
- Insert the Communication Manager CD in the media server on page 78
- Copy Communication Manager on the standby media server on page 78
- Install Communication Manager on the media server on page 79
- Reboot the media server on page 81
- Check reboot progress on page 81
- Relaunch Web browser on page 82
- Verify software operation on page 82
- Make upgrade permanent on page 83
- Install post-upgrade service pack files (if any) on page 83
- Install the license and Avaya authentication files on page 84

Post-Upgrade tasks:

- Enable scheduled maintenance using SAT on page 84
- Busy out previously busied-out trunks using SAT on page 85
- Check for translation corruption using SAT on page 85
- Resolve alarms on page 85
- Back up files from media server on page 85
- Release alarm suppression (optional) on page 86
- Start call processing on the LSPs (if being used; optional) on page 86
- Log off all administration applications on page 86
- Register Avaya Communication Manager on page 86
Pre-upgrade tasks

Stop call processing on LSPs (if being used; optional)

The following steps stop Communication Manager on the LSP.

1. Connect to the services port (2) on the back of the main media server (primary controller).
2. From the Start menu on the laptop, click Start > Run to open the Run dialog box.
3. Type command or cmd and click OK to open an MS-DOS window.
4. Type telnet 192.11.13.6 and press Enter to access the primary controller (media server).
5. Within this Telnet session, type telnet IPaddress and press Enter, where IPaddress is the IP address of the S8300, to access the LSP.
6. Log in as craft.
7. Type stop -afcn and press Enter to stop potential call processing on the LSP.
   The S8300 (LSP) shuts down Communication Manager.
8. Repeat for each LSP.

⚠️ CAUTION:

The LSP’s Communication Manager must remain shut down while you upgrade the primary controller. After completing the primary controller upgrade, run save translations on the primary controller before restarting Communication Manager on the LSP. The save translations process automatically causes the G700’s endpoints to reregister with the primary controller.

See Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100) for more complete information.

Connect to the media server

If on site, connect to the services port on the back of the media server.
If off site, log onto the media server using the IP address of the media server.

Start a SAT session

Note:

Tasks Check link status using SAT (optional) on page 73 through Check for translation corruption using SAT on page 74 use SAT commands.
The following steps start a SAT session.

1. Open a terminal emulation application, such as MS HyperTerminal.
2. Type `192.11.13.6 5023` and press Enter.
3. Log on as craft or dadmin.

Check link status using SAT (optional)

The following steps check the status of various links.

**Note:**
Because some links may be down by choice, make note of them before the upgrade.

1. Type `display communication-interface links` and press Enter.
2. Note all administered links.
3. Type `status link number` and press Enter for each administered link.
4. Check the following fields for the values listed:
   - Link Status = connected
   - Service State = in service
5. Type `list signaling group` and press Enter.
6. Note the signaling groups listed by number.
7. For each of the signaling groups listed, type `status signaling group number` and press Enter.
8. If any of the links are not up, make note of any that are down.

Record all busyouts using SAT

Type `display errors` and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the upgrade.

Check clock synchronization using SAT

Type `status sync` and press Enter to verify that the clock synchronization is good. Make note of outages.
Disable scheduled maintenance using SAT

The following steps prevent scheduled daily maintenance from interfering with the upgrade.

1. To prevent scheduled daily maintenance from interfering with the update or upgrade, type `change system-parameters maintenance` and press Enter.

2. If scheduled maintenance is in progress, set the Stop Time field to 1 minute after the current time.

   or

   If scheduled maintenance is not in progress, set the Start Time field to a time after the upgrade will be completed.

   For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 4 hours, set the Start Time field to 23:59.

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press Enter.

2. If you do not get a login prompt, but instead see the following message

   Warning: Translation corruption detected

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Access the Maintenance Web Interface

The following steps allow you to access the Maintenance Web Interface.

   Note:
   Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.

1. Launch the Web browser.
2. Type `192.11.13.6` in the Address field to open the logon page.
3. Log on as **craft** or **dadmin**. Or, if you are a customer, log in with a customer super user login.

4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

**Copy files to the media server**

Copy the pre- and post-upgrade service pack files from the computer to the media server.

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I'm using to connect to the server**.
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.
4. Click **Download** to copy the file(s) to the media server.

The files are automatically copied to the default file location.

**Clear alarms**

The following steps clear alarms.

1. On the Maintenance Web Interface, under Alarms and Notification, click **View Current Alarms**.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve any major alarms using SAT commands on a terminal emulation application.
Upgrading Communication Manager on Avaya S8500 Media Server Using Maintenance Web Interface

Back up recovery system files

It is good practice to back up all the system configuration files in case there is a need to back out of the upgrade.

The following steps back up the system configuration files.
1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets, including **Avaya Call Processing (ACP) translations** and **Save ACP translations prior to backup**, and the backup method. Do not select **Full Backup** because this option does not save translations.

   **Note:**
   If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade procedure.
3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Verify the backup

The following steps check that the backup was successful.
1. Under **Data Backup/Restore**, select **Backup History**.
2. Select the backup you want to check, and click **Check Status**.
   The status of the backup appears.
   Check that **Backup Successful** appears for every data set in the backup.

Suppress alarming

⚠️ **CAUTION:**
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.
1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almssuppress -t time` and press Enter to suppress both dial-out and SNMP alarms. The variable `time` is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

You see the following message

**Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.

### Check software release

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See [Pre-upgrade service pack](#) on page 68.

Under Server click **Software Version** to see what software release is on the media server.

### Activate the pre-upgrade service pack

**Note:**

Use a telnet session to install and activate the service pack.

The following steps activate the service pack.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press Enter.
3. Log in as either `craft` or `dadmin`.
4. Type `update_unpack` and press Enter.
5. Select the number corresponding to the service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press Enter.
6. Type `update_show` and press Enter to list Communication Manager files to verify that the new service pack file was unpacked.
7. Type `update_activate update`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`. Do *not* use the `.tar.gz` extension at the end of the file name). Press Enter.

The media server may reboot. If it reboots, it also may display the message

```
/opt/ecs/sbin/drestart 2 4 command failed.
```

Ignore this message. You must wait until the restart/reset completes before entering additional commands.
The media server displays a message that the service pack was applied.

8. Type `update_show` again and press Enter to list Communication Manager files to verify the service pack file was activated.

9. Enter `y` in response to the question, Commit this software?

---

### Upgrade tasks

#### Insert the Communication Manager CD in the media server

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.

#### Copy Communication Manager on the standby media server

The following steps copy Communication Manager to the media server.

1. On the browser toolbar, click **Refresh** to reload the current page.
2. Under **Server Upgrades**, select **Manage Software**.

![Manage Software](image)

- **Progress:** Choose Task
  - This server is currently running release: **S8710-013-00.0.336.0**

Choose Task

- Copy a release to the local hard drive, but do not install it.
- Install one of the following releases currently resident on the local hard drive:
  - 03.0-06.0.334.1
  - 03.0-00.0.335.0
  - 03.0-00.0.336.0
- Delete one of the above releases from the local hard drive.
  (This does not affect the release that is running on the system.)

**Note:** If the web session times out, you can recover by logging in again and clicking the Manage Software link from the menu.

[Continue] [Cancel] [Help]

---

78  Upgrading, Migrating, and Converting Media Servers and Gateways
Upgrade tasks

⚠️ Important:
If three releases are already resident on the hard drive, you must delete one of them to make room for the new release.

3. If three releases are resident on the hard drive
   a. Select Delete one of the above releases from the local hard drive and click Continue to view the list of releases on the hard drive.
   b. Select the software release you want to delete and click Delete. When completed the following message displays:
      Deletion Complete
   c. Click Continue to return to the initial Manage Software page.

4. If there are fewer than 3 releases on the hard drive
   a. Select Copy a release to the local hard drive, but do not install it, and click Continue to view the options for copying the software to the hard drive
   b. Select Copy from this server’s CD-ROM drive: and click Continue.
   c. View the progress screen as the software is copied to the hard drive. When completed the following message displays:
      Copy Complete
   d. Click Continue to return to the initial Manage Software page.

5. Close Window.

Install Communication Manager on the media server

The following steps install Communication Manager on the media server.

1. On the browser toolbar, click Refresh to reload the current page.
2. Under Server Upgrades, click Manage Software.

![Manage Software](image)

3. Select Install one of the following releases currently resident on the local hard drive: and click Continue.

4. On the Choose License Source screen, select I will supply the license/authentication files myself when prompted later in this process.

If not installing new license and Avaya authentication files, select I want to reuse the license/authentication files from the currently active partition on this server.

5. Click Continue and continue through the Review Notices.

6. On the Begin Installation screen verify that the information is correct.

7. If correct, click Continue to install the software to the inactive partition. The software installation takes about 30 minutes.

8. View the progress on the screen. The screen will refresh automatically every few seconds. If you want it more frequently, click Refresh to instantly update the information on the screen.

⚠️ CAUTION:

DO NOT CLICK CANCEL past this point. Be patient. If the installation fails, a message appears on the Install in Progress screen.
Reboot the media server

⚠️ **CAUTION:**

The CD tray opens automatically. Remove the CD from the CD-ROM drive **before** continuing.

**Note:**

When you reboot the media server, it can no longer communicate with the Web interface. The Reboot in Progress Web page remains on your screen until the reboot completes. Although the Continue button is visible, do not click it yet.

The following steps reboot the media server.

1. Remove the CD from the CD-ROM drive.
2. When prompted to reboot, click **Reboot**.

   The media server reboots from the partition with the new software release. Allow 2–5 minutes for the reboot to complete. For more information refer to the online help.

**Note:**

The Web page does not show progress of the reboot process, so you will not know when the reboot is complete. If you want to check the progress, go to **Check reboot progress** on page 81.

3. If an error window pops up indicating that the media server cannot be contacted, click **OK** and wait a few more minutes.
4. When the media server completes the reboot, the error message is replaced with the Installation Complete page.
5. Click **Continue** to go to the next screen.
6. Click **Close** to close the Manage Software window.
7. Close the Web browser.

Check reboot progress

The following steps check the reboot process.

1. From the laptop Start menu, click **Start > Run** to open the Run dialog box.
2. Type `command` and press **Enter** to open an MS-DOS window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the ARP cache in the laptop. This command responds with one of the following:

   - The command line prompt when the cache has been cleared.
   - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

   ```
   The specified entry was not found.
   ```
4. Type `ping -t 192.11.13.6` to access the media server. The `-t` causes the ping to repeat until you get a response. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.

5. Type `ctrl c` to stop the ping.

6. Close the MS-DOS window.

**Relaunch Web browser**

You need to reopen your Web browser to access any new Web pages.

1. Launch the Web browser.
2. Type `192.11.13.6` in the `Address` field to open the logon page.
3. Log in as `craft` or `dadmin`.
4. Click **Launch Maintenance Web Pages** to get to the Main Menu.

**Verify software operation**

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade.

1. Under Server click **Software Version**.
2. Look in the `Reports as:` field to verify that the new version is running correctly. If it is, go to the next step.
3. Click **Status Summary** to verify that the media server is working.
4. Click **Process Status**.
5. Select **Summary and Display once**. Click **Display** to access the **View Process Status Results** screen.
6. Verify that all the processes say UP.
7. Make sure you can log in using Telnet.
   a. From the laptop Start menu, click **Start > Run** to open the Run dialog box.
   b. Type `command` and press `Enter` to open an MS-DOS window.
   c. Type `arp -d 192.11.13.6` and press `Enter` to clear the ARP cache in the laptop. This command will respond with one of the following:
      - The command line prompt when the cache has been cleared.
      - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

         **The specified entry was not found.**
Upgrade tasks

d. Type `telnet 192.11.13.6` to access the media server and verify that you can log in.

If you do not get a login prompt, then follow the normal escalation procedure.

8. Make telephone test calls to verify that call processing is working.

Make upgrade permanent

⚠️ **CAUTION:**

If you do not commit the new software release (make it permanent), then the next time the media server reboots, it will come up running the previous version of software. Any new translations you may have made to the new release are lost, and the new software will have to be installed again. Commit the new software to operation as soon as you verify that you can log into the media server. If you do not make the upgrade permanent within 2 hours of the upgrade, an alarm is raised.

The following steps make the upgrade permanent.

1. Under Server Upgrades, click **Make Upgrade Permanent**.
2. Click **Enter** to make the partition with the new software version the permanent partition.
3. Under Server Upgrades, click **Boot Partition** to confirm that the software is selected for the boot partition and the active partition.

Install post-upgrade service pack files (if any)

**Note:**

Skip this procedure if there is no Communication Manager service pack file to install.

This service pack may or may not be call preserving.

Use a telnet session to install the service pack file.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft**.
4. Type `cd /var/home/ftp/pub` and press **Enter** to access the pub directory.
5. At the prompt, type `ls -ltr` and press **Enter** to list files in the pub directory.

The media server displays a list of files in the FTP directory. Verify that the directory contains the Communication Manager .tar.gz file you have uploaded, if any.
6. Type `update_unpack update.tar.gz`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press `Enter`.

7. Type `update_show` and press `Enter` to list Communication Manager files to verify the new service pack file was unpacked.

8. Type `update_activate update`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`). Do not use the `.tar.gz` extension at the end of the file name). Press `Enter`.

   The media server may reboot (reset system 4). If it reboots, it also may display the message
   
   `/opt/ecs/sbin/drestart 2 4 command failed.
   
   Ignore this message. You must wait until the restart/reset completes before entering additional commands.
   
   The media server displays a message that the service pack was applied.

9. Type `update_show` again and press `Enter` to list Communication Manager files to verify the new service pack file was activated.

Install the license and Avaya authentication files

If you selected the install license files option earlier in the process, you are prompted to install the updated license and Avaya authentication files.

Click `Continue` to install the license and Avaya authentication files.

Post-Upgrade tasks

Note:

Tasks `Enable scheduled maintenance using SAT` on page 84 through `Check for translation corruption using SAT` on page 85 use SAT commands.

Enable scheduled maintenance using SAT

The following steps enable scheduled maintenance.

1. Type `change system-parameters maintenance` and press `Enter`.

2. Ensure that the `Start Time` and `Stop Time` fields’ administration is the same as before the upgrade.
Busy out previously busied-out trunks using SAT

Busy out trunks that were busied out before the upgrade (see Record all busyouts using SAT on page 73).

Check for translation corruption using SAT

The following steps check for translation corruption.
1. Type `newterm` and press Enter.
2. If you see the following message:
   
   **Warning: Translation corruption detected**

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Resolve alarms

Use the Maintenance Web Interface.
1. Under Alarms click **Current Alarms** to examine the alarm log.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve new alarms since the upgrade using SAT commands and the *Maintenance Commands Reference* and *Alarms Maintenance* books.

Back up files from media server

The following steps back up the system configuration files.
1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets and the backup method.
3. Select the data sets, including *Avaya Call Processing (ACP) translations* and *Save ACP translations prior to backup*, and the backup method. Do *not* select **Full Backup** because this option does not save translations.

   **Note:**
   
   If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade, migration, or conversion procedure.

4. Click **Start Backup** to begin the back up process. Wait until the backup completes.
**Release alarm suppression (optional)**

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. Click **Start > Run** to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -n` and press **Enter** to release alarm suppression.
5. Log off.

**Start call processing on the LSPs (if being used; optional)**

If the S8500 Media Server is the primary controller for a G150, G350, or G700 Media Gateway equipped with a local survivable processor (LSP) and you shut down the media server before you upgraded the software, you must restart call processing on the LSP.

⚠️ **Important:**
You must be connected to the LSP on which you upgraded the software.

The following administration is done when connected to the primary controller (media server) using `telnet`.

1. From the Start menu on the laptop, click **Start > Run** to open the Run dialog box
2. Type `command` or `cmd` to open an MS-DOS window.
3. Type `telnet 192.11.13.6` to access the primary controller.
4. Type `telnet IPaddress`, where `IPaddress` is the IP address of the LSP.
5. Log in as **craft** or **dadmin**.
6. At the prompt type `start -afcn` and press **Enter** to restart call processing on the LSP.
7. Repeat for each LSP.

Refer to *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100)* for more complete information.

**Log off all administration applications**

When you have completed all the administration, log off all the applications used.

**Register Avaya Communication Manager**

Follow standard procedures for registering the new software.
Upgrading Communication Manager on Avaya S8500 Media Server Using the Upgrade Tool

This procedure is for upgrading Avaya Communication Manager on an existing, registered Avaya S8500 Media Server running Release 2.x of Avaya Communication Manager. This method uses the Upgrade Tool available with Release 2.1 and later. If you prefer to upgrade Communication Manager using the Maintenance Web Interface. See Upgrading Communication Manager on Avaya S8500 Media Server Using Maintenance Web Interface.

⚠️ Important:
Upgrading from Release 2.x to Release 3.0 requires installing a pre-upgrade service pack (software update) before upgrading Communication Manager. This service pack supports the upgrade to Release 3.0. See Pre-upgrade service pack on page 89 for information on which service pack to use.

Upgrading from Release 2.x to Release 3.0 requires an updated license file. For information on generating a license file, see License and Avaya authentication files on page 49 in Chapter 2: Upgrading Software on Media Servers on page 45.

⚠️ Important:
If you have Manual Backup Servers (MBS), you can no longer use them as they cannot be upgraded to Release 3.0. You can migrate the MBSs to Enterprise Survivable Servers (ESSs); see Avaya Enterprise Survivable Servers (ESS) User Guide (03-300428) for information.

⚠️ Important:
The Upgrade Tool cannot be used to upgrade the G150 Media Gateway (available with Release 2.2) if being used. You must upgrade it separately. See Installation and Configuration for the Avaya G150 Media Gateway (03-300395) for complete information.
Upgrade Tool use

Note:
See Job Aid: Upgrade Tool and Worksheet (555-245-757) and the online Help for information on using the Upgrade Tool.

The Upgrade Tool allows you to automatically and remotely upgrade the following from the primary controller:

- Communication Manager on the Local Survivable Processors (LSPs). You can also use the tool to apply post-upgrade service packs (software updates) to the LSPs.
- Firmware on the G350 or G700 Media Gateways and most of the media modules that are resident in the media gateways.
- Communication Manager and post-upgrade service packs on the primary controller if R2.1 or later.

With the Upgrade Tool, you do not have to physically be at the LSP and media gateway locations to perform the upgrades. Additionally, you do not have to run the upgrades one by one. You can enter the needed information for all LSPs and gateways into the Upgrade Tool, then run the Upgrade Tool. The tool automatically upgrades Communication Manager and firmware on all LSPs and G350 or G700 gateways, respectively.

Note:
LSPs must be upgraded to the latest release of Avaya Communication Manager before you upgrade the primary controller to the latest release. To use the Upgrade Tool, the LSPs and the primary controller must be on Release 2.0 or later of Avaya Communication Manager.

Upgrade using the Upgrade Tool

To upgrade an LSP or gateway using the Upgrade Tool, the LSP or media gateway must already be administered and registered with the primary controller. To check, use the Query Versions option on the Upgrade Tool navigation pane (on the left side of the Upgrade Tool screens). The Query Versions screen will show an IP address next to each registered LSP and gateway.

The Upgrade Tool upgrades components of a configuration in the following order:

- All LSPs you specify
- The media gateways and their media modules
- The primary controller
Pre-requisites

You must complete several tasks before going on site and beginning the upgrade. For pre-site tasks, see Pre-site checklist on page 47 in Chapter 2: Upgrading Software on Media Servers on page 45.

TN2312AP/BP IPSI circuit pack upgrades

The TN2312AP/BP IPSI circuit packs must have the current firmware load before upgrading Communication Manager on the media server. Upgrade the IPSI firmware first. Go to Upgrading firmware on the IPSIs on page 219 for firmware upgrade procedures.

Pre-upgrade service pack

This upgrade requires a pre-upgrade service pack. The service pack filename differs, depending on which software load the media server is on. See Software release and load for the software load associated with each release.

⚠️ CAUTION:

If the customer’s system has Release 2.x of Communication Manager but has a field load other than those listed in the table, do not use this section to upgrade Communication Manager to Release 3.0. You must escalate.

Table 4: Software release and load

<table>
<thead>
<tr>
<th>Software release of existing media server</th>
<th>Associated software load</th>
<th>Service pack filename</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 2.0</td>
<td>R012x.00.0.219.0</td>
<td>00.0.219.0-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.0.1</td>
<td>R012x.00.1.221.1</td>
<td>00.1.221.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1</td>
<td>R012x.01.0.411.7</td>
<td>01.0.411.7-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1.1</td>
<td>R012x.01.1.414.1</td>
<td>01.1.414.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2</td>
<td>R012x.02.0.111.4</td>
<td>02.0.111.4-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2.1</td>
<td>R012x.02.0.xxx.x</td>
<td>02.0.xxx.x-xxxx.tar.gz</td>
</tr>
</tbody>
</table>
Overview of upgrade sequence

The Upgrade Tool cannot be used to install the pre-upgrade service pack. Also, because the Upgrade Tool also cannot be used to upgrade the G150 Media Gateways, you must upgrade them separately.

The high level sequence is

1. Obtain the updated license files and pre- and post-upgrade service packs for all LSPs (if being used) and the primary controller. Also, obtain firmware files for all G350 and G700 Media Gateways (if being used).

2. Prepare the LSPs (if being used) for the upgrade

   - Distribute Communication Manager software to the site of each LSP (if being used). This can be either CDs that are mailed or copied to the media server through TFTP or HTTP.
   - Using the Maintenance Web Interface pages, copy the pre-upgrade service pack and post-upgrade service pack from an FTP server or another means of transport onto each LSP (if being used).
   - Install and activate the pre-upgrade service pack on the LSPs (if being used).
   - Copy the new Communication Manager software to all the LSPs using the Manage Software Web page. This may be done remotely for each LSP if someone at each location can insert the software CD for you.

3. Using the Maintenance Web Interface pages, copy the pre-upgrade service pack and post-upgrade service pack from an FTP server or another means of transport onto the primary controller (S8500).

4. Install and activate the pre-upgrade service pack on the primary controller.

5. Copy the new Communication Manager software to the primary controller using the Manage Software Web page.

6. Launch the Upgrade Tool to upgrade

   - Communication Manager and post-upgrade service pack on the S8300 Media Server, if using LSPs
   - The firmware on the G350 and G700 media gateways and media modules
   - Communication Manager and post-upgrade service pack on the primary controller.

7. If installed, upgrade the G150 Media Gateway; you cannot use the Upgrade Tool.

For detailed information on upgrading LSPs, see Chapter 6: "Upgrading an existing S8300B to R3.0" in Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100).
Upgrade tasks

Pre-upgrade tasks:

- Connect to the media server

Current configuration tasks:

- Start a SAT session on page 92
- Check link status using SAT (optional) on page 92
- Record all busyouts using SAT on page 93
- Check clock synchronization using SAT on page 93
- Disable scheduled maintenance using SAT on page 93
- Check for translation corruption using SAT on page 93

- Access the Maintenance Web Interface on page 93
- Copy files to the media server on page 94
- Clear alarms on page 95
- Back up recovery system files on page 95
- Suppress alarming on page 95
- Check software release on page 96
- Activate the pre-upgrade service pack on page 96
- Insert software CD in the media server on page 97
- Copy Communication Manager to the media server on page 97
- Remove CD from CD drive on page 98

Upgrade tasks:

- Launch the Upgrade Tool on page 98
- Install Avaya authentication files (if required) on page 100
- Verify software operation on page 100

Post-Upgrade tasks:

- Enable scheduled maintenance using SAT on page 102
- Busy out previously busied-out trunks using SAT on page 102
- Check for translation corruption using SAT on page 102
- Resolve alarms on page 102
- Back up files on the media server on page 103
- Release alarm suppression on the media server (optional) on page 103
Upgrading Communication Manager on Avaya S8500 Media Server Using the Upgrade Tool

- Log off the administration applications on page 103
- Register Avaya Communication Manager on page 103

Pre-upgrade tasks

Connect to the media server

If on site, connect to the services port on the back of the media server.
If off site, log onto the media server using the IP address of the media server.

Start a SAT session

The following steps start a SAT session.
1. Open a terminal emulation application, such as MS HyperTerminal.
2. Type `192.11.13.6 5023` and press Enter.
3. Log on as craft or dadmin.

Check link status using SAT (optional)

The following steps check the status of various links.

Note: Because some links may be down by choice, make note of them before the upgrade.
1. Type `display communication-interface links` and press Enter.
2. Note all administered links.
3. Type `status link number` and press Enter for each administered link.
4. Check the following fields for the values listed:
   - Link Status = connected
   - Service State = in service
5. Type `list signaling group` and press Enter.
6. Note the signaling groups listed by number.
7. For each of the signaling groups listed, type `status signaling group number` and press Enter.
8. If any of the links are not up, make note of any that are down.
Record all busyouts using SAT

Type `display errors` and press `Enter`. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the upgrade.

Check clock synchronization using SAT

Type `status sync` and press `Enter` to verify that the clock synchronization is good. Make note of outages.

Disable scheduled maintenance using SAT

The following steps prevent scheduled daily maintenance from interfering with the upgrade.

1. To prevent scheduled daily maintenance from interfering with the update or upgrade, type `change system-parameters maintenance` and press `Enter`.

2. If scheduled maintenance is in progress, set the `Stop Time` field to 1 minute after the current time.

   or

   If scheduled maintenance is not in progress, set the `Start Time` field to a time after the upgrade will be completed.

   For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 4 hours, set the `Start Time` field to 23:59.

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press `Enter`.

2. If you do not get a login prompt, but instead see the following message

   Warning: Translation corruption detected

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Access the Maintenance Web Interface

The following steps allow you to access the Maintenance Web Interface.

   **Note:**

   Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.
1. If on site, connect to the services port (2) on the back of the media server. If off site, log onto the media server using the IP address of the media server.

2. Launch the Web browser.

3. Type 192.11.13.6 in the Address field to open the logon page.

4. Log on as craft or dadmin. Or, if you are a customer, log in with a customer super user login.

5. Click **Launch Maintenance Web Interface** to get to the Main Menu.

### Copy files to the media server

Use the following steps to copy the pre-upgrade and post-upgrade service packs and the license files for all LSPs and the primary controller. The files should be located as follows:

- On your laptop, if connected directly to the server,
- On the computer you are using, if connected remotely
- On another computer or server within the customer’s network

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I’m using to connect to the server.**
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.

4. Click **Download** to copy the file(s) to the media server.

   The files are automatically copied to the default file location.

**Clear alarms**

The following steps clear alarms.

1. Under Alarms and Notification, click **View Current Alarms**.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve any major alarms using SAT commands on a terminal emulation application.

**Back up recovery system files**

It is good practice to back up all the system configuration files in case there is a need to back out of the upgrade.

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets, including Avaya Call Processing (ACP) translations and **Save ACP translations prior to backup**, and the backup method. Do not select **Full Backup** because this option does not save translations.

   **Note:**
   
   If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade procedure.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

**Suppress alarming**

⚠️ **CAUTION:**

If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -t time` and press Enter to suppress both dial-out and SNMP alarms. The variable `time` is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

   You see the following message

   **Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.

### Check software release

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See [Pre-upgrade service pack](#) on page 89.

Under Server click **Software Version** to see what software release is on the media server.

### Activate the pre-upgrade service pack

**Note:**

Use a telnet session to install and activate the service pack file.

The following steps activate the service pack.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as either **craft** or **dadmin**.
4. Type `update_unpack` and press **Enter**.
5. Select the number corresponding to the service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press **Enter**.
6. Type `update_show` and press **Enter** to list Communication Manager files to verify that the new service pack file was unpacked.
7. Type `update_activate update`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`. Do not use the `.tar.gz` extension at the end of the file name). Press **Enter**.

   The media server may reboot. If it reboots, it also may display the message

   `/opt/ecs/sbin/drestart 2 4 command failed.`

   Ignore this message. You must wait until the restart/reset completes before entering additional commands.
The media server displays a message that the service pack was applied.

8. Type `update_show` again and press `Enter` to list Communication Manager files to verify the service pack file was activated.

9. Enter `y` in response to the question, `Commit this software`?

Insert software CD in the media server

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.

Copy Communication Manager to the media server

The following steps copy Communication Manager to the media server.

1. On the browser toolbar, click `Refresh` to reload the current page.

2. Under `Server Upgrades`, select `Manage Software`.

   ![Manage Software](chart)

   **Important:**
   If three releases are already resident on the hard drive, you must delete one of them to make room for the new release.

3. If three releases are resident on the hard drive
Upgrading Communication Manager on Avaya S8500 Media Server Using the Upgrade Tool

a. Select **Delete one of the above releases from the local hard drive** and click **Continue** to view the list of releases on the hard drive.

b. Select the software release you want to delete and click **Delete**. When completed the following message displays:

   **Deletion Complete**

c. Click **Continue** to return to the initial Manage Software page.

4. If there are fewer than 3 releases on the hard drive

a. Select **Copy a release to the local hard drive, but do not install it**, and click **Continue** to view the options for copying the software to the hard drive.

b. Select **Copy from this server’s CD-ROM drive**: and click **Continue**.

c. View the progress screen as the software is copied to the hard drive. When completed the following message displays:

   **Copy Complete**

d. Click **Continue** to return to the initial Manage Software page.

5. Close Window.

---

Remove CD from CD drive

The following steps release the CD tray so you can remove the CD.

1. Push button on the CD drive to release the CD tray.

   If it does not release, go to the Maintenance Web Interface main menu. Under Server Configuration click **Eject CD-ROM**.

2. Remove the Communication Manager CD from the tray and close the tray.

---

Upgrade tasks

Launch the Upgrade Tool

⚠️ **Important:**

The Communication Manager, firmware, and license files must be resident on the LSPs.

Use the Upgrade Tool to upgrade LSPs (if being used), media gateways and modules, and the S8500 Media Server (primary controller).
Upgrade tasks

Note:

See Job Aid: Upgrade Tool and Worksheets, Issue 3 (555-245-757) and the online Help for information on using the Upgrade Tool.

The following steps launch the Upgrade Tool.

1. On the Home page, click Launch Upgrade Tool.

The following steps launch the Upgrade Tool.

2. Follow the procedures documented in the Job Aid: Upgrade Tool and Worksheets.
Install Avaya authentication files (if required)

New authentication files are required when you are upgrading the software to a release with a new whole number (for example, from R2.2 to R3.0). The following steps install the security file.

2. Select Install the Authentication file I previously downloaded and click Install to install the Avaya authentication file.
   
The system tells you the authentication is installed successfully.

Verify software operation

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade.

2. Look in the Reports as: field to verify that the new software is running correctly. If it is, go to the next step.
3. Click Status Summary to verify that the media server is working.
4. Click Process Status.
5. Select Summary and Display once. Click Display to access the View Process Status Results page.

```
View Process Status Results

<table>
<thead>
<tr>
<th>Service</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watchdog</td>
<td>17/17</td>
</tr>
<tr>
<td>TraceLogger</td>
<td>4/4</td>
</tr>
<tr>
<td>SHV</td>
<td>0/4</td>
</tr>
<tr>
<td>Licenceserver</td>
<td>3/3</td>
</tr>
<tr>
<td>LMADAlarmagen</td>
<td>1/1</td>
</tr>
<tr>
<td>CAAlarmAgent</td>
<td>1/1</td>
</tr>
<tr>
<td>SMU</td>
<td>0/0</td>
</tr>
<tr>
<td>SMURManager</td>
<td>0/0</td>
</tr>
<tr>
<td>arbiter</td>
<td>0/0</td>
</tr>
<tr>
<td>filesync</td>
<td>0/0</td>
</tr>
<tr>
<td>dumser</td>
<td>0/0</td>
</tr>
<tr>
<td>MasterAgent</td>
<td>1/1</td>
</tr>
<tr>
<td>NTIMAgent</td>
<td>1/1</td>
</tr>
<tr>
<td>MYAgent</td>
<td>1/1</td>
</tr>
<tr>
<td>SMS</td>
<td>9/9</td>
</tr>
<tr>
<td>MultiVantage</td>
<td>50/50</td>
</tr>
</tbody>
</table>
```

6. Verify that all the processes are UP.
7. Make sure you can log in using Telnet.
a. From the laptop Start menu, click **Start > Run** to open the Run dialog box.

b. Type **command** and press **Enter** to open an MS-DOS window.

c. Type **arp -d 192.11.13.6** and press **Enter** to clear the ARP cache in the laptop. This command will respond with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: The specified entry was not found. This is returned when the specified IP address does not currently contain an entry in the ARP cache.

d. Type **telnet 192.11.13.6** to access the media server and verify that you can log in.

   If you do not get a login prompt, then follow the normal escalation procedure.

8. Make telephone test calls to verify that call processing is working.
Post-Upgrade tasks

Enable scheduled maintenance using SAT

The following steps enable scheduled maintenance.

1. Type `change system-parameters maintenance` and press `Enter`.
2. Ensure that the Start Time and Stop Time fields’ administration is the same as before the upgrade.

Busy out previously busied-out trunks using SAT

Busy out trunks that were busied out before the upgrade (see Record all busyouts using SAT on page 93).

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press `Enter`.
2. If you do not get a login prompt and see the following message:
   
   **Warning: Translation corruption detected**

   follow the normal escalation procedure for translation corruption before continuing the upgrade.

Resolve alarms

Using the Maintenance Web Interface.

1. Under Alarms click **Current Alarms** to examine the alarm log.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve new alarms since the upgrade using SAT commands and the Maintenance Commands Reference and Alarms Maintenance books.
Back up files on the media server

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets, including **Avaya Call Processing (ACP) translations** and **Save ACP translations prior to backup**, and the backup method. Do **not** select **Full Backup** because this option does not save translations.

   **Note:**
   If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade procedure.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Release alarm suppression on the media server (optional)

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. Click **Start > Run** to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -n` and press **Enter** to release alarm suppression.
5. Log off.

Log off the administration applications

When you have completed all the administration, log off all the applications used.

Register Avaya Communication Manager

Follow standard procedures for registering the new software.
Post-requisites

Upgrade the G150 Media Gateways (if being used)

Note:
If the customer has no G150 Media Gateways, skip this task.
If the configuration is using G150 Media Gateways and WAN Expansion Interfaces and newer software exists for them, you must upgrade Communication Manager on them first. See Installation and Configuration for the Avaya G150 Media Gateway (03-300395) for complete information.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

This procedure is for upgrading Avaya Communication Manager on an existing, registered Avaya S8700 series media server running Release 1.x of Avaya Communication Manager. This upgrade requires that you remaster the existing hard drive using a CD that contains an updated operating system and Release 3.0 of Avaya Communication Manager. This method uses the Manage Software link on the Maintenance Web Interface.

⚠️ Important:
You cannot upgrade Release 1.0/1.1 directly to Release 3.0. You must first upgrade to Release 1.3.x.

⚠️ Important:
Upgrading from Release 1.x to Release 3.0 or later requires installing either one or two pre-upgrade service packs (service packs) before upgrading Communication Manager. These service packs support the upgrade to Release 3.0. See Pre-upgrade service pack on page 106 for information on which service packs to use.

Upgrading from Release 1.x to Release 3.0 requires an updated license file. For information on generating a license file, see License and Avaya authentication files on page 49 in Chapter 2: Upgrading Software on Media Servers on page 45.

⚠️ Important:
If you have a Survivable Remote EPN or Manual Backup Servers (MBS), you can no longer use them as they cannot be upgraded to Release 3.0. You can migrate the MBSs to Enterprise Survivable Servers (ESSs); see Avaya Enterprise Survivable Servers (ESS) User Guide (03-300428) for information.

Although you always upgrade Communication Manager on a busied-out standby media server, you can access SAT commands only on the active media server. Some pre-upgrade steps are done on the active media server first, then you move to the standby media server for the actual software upgrade. Some post-upgrade steps are done on the active media server, also.

⚠️ CAUTION:
Rebooting an active media server causes a service interruption. Make sure you are on a busied out, standby media server when upgrading the software.
Prerequisites

You must complete several tasks before going on site and beginning the upgrade. For pre-site tasks, see Pre-site checklist on page 47 in Chapter 2: Upgrading Software on Media Servers on page 45.

TN2312AP/BP IPSI circuit pack upgrades

The TN2312AP/BP IPSI circuit packs must have the most recent release of the firmware before upgrading Communication Manager on the media server. Upgrade the IPSI firmware first. Go to Upgrading firmware on the IPSIs on page 219 for firmware upgrade procedures.

Pre-upgrade service pack

This upgrade requires either one or two pre-upgrade service packs. The service pack filenames differ, depending on which software load the media server is currently on. See Software release and load for the software load associated with each release.

⚠️ CAUTION:
If the customer’s system has Release 1.x of Communication Manager but has a software load other than those listed in the table, do not use this section to upgrade Communication Manager to Release 3.0. You must escalate.

Table 5: Software release and load

<table>
<thead>
<tr>
<th>Software release of existing media server</th>
<th>Associated software load</th>
<th>Service pack filename</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 1.2</td>
<td>R011x.02.110.4</td>
<td>02.0.110.4-1003.tar.gz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02.0.110.4-1004.tar.gz</td>
</tr>
<tr>
<td>Release 1.3</td>
<td>R011x.03.526.5</td>
<td>03.0.526.5-1003.tar.gz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>03.0.526.5-1004.tar.gz</td>
</tr>
<tr>
<td>Release 1.3.1</td>
<td>R011x.03.1.531.0</td>
<td>01.0.531.0-1004.tar.gz</td>
</tr>
<tr>
<td>Release 1.3.2</td>
<td>R011x.03.2.536.1</td>
<td>03.2.536.1-1004.tar.gz</td>
</tr>
</tbody>
</table>
Upgrade of LSPs and media gateways (if being used)

Note:
If the customer has no Branch Media Gateways or no local survivable processors (LSPs), skip these tasks and go to Connect to the active media server on page 113.

If the media server is the primary controller for a G350 or G700 Media Gateway equipped with a local survivable processor (LSP), you must upgrade Communication Manager on the LSPs (S8300) before you upgrade Communication Manager on the primary controller. If the configuration is using G350 or G700 Media Gateways and media modules and newer firmware exists for them, you must upgrade the firmware on them. The correct order is

- First, if using LSPs, upgrade Communication Manager on the S8300 Media Server to the latest version.
- Second, upgrade the firmware on the media gateway and media modules to the latest version.
- Third, upgrade Communication Manager on the primary controller (S8700 series media server) to the latest version.

Upgrade of Communication Manager on the LSPs

For more detailed information on the upgrade process, refer to Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100).

Note:
Although the LSPs remain registered with the primary controller, the LSPs will not accept translations if they are running an older version of Avaya Communication Manager than the primary controller.

Stopping and starting LSPs

Before you upgrade the S8700 series media servers, you may want to stop call processing on the LSPs. This allows the media gateway and IP telephones to quickly reregister with the primary controller after the upgrade.

If you stop call processing on the LSPs, you must restart them when the primary controller upgrade is complete. In addition, stopping call processing on the LSPs has the following consequences:

- During the interchange between the active and standby media servers, analog and digital phone calls are dropped.
- New calls to or from IP phones cannot be made during the interchange.
- If the upgrade has problems such that service from both servers is lost, all phones will be out of service, including phones assigned to backup service on the LSPs.
If you do not stop call processing on the LSPs, all phones have service during the time the LSPs are controlling calls even if there is a problem with the primary controller’s upgrade. In addition, not stopping call processing on the LSPs has the following consequences:

- IP phones will most likely register to the appropriate LSP during the server upgrade.
- You must reset the LSPs when the primary controller upgrade is complete to reregister the IP phones to the primary controller.

**Upgrade the LSPs**

For detailed information on the upgrade process, see Chapter 12: "Manual upgrade of an existing S8300A to R3.0" in *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).

**Upgrade firmware on media gateways and media modules**

You may use the Upgrade Tool to upgrade the firmware on all the media gateways and media modules. To use the tool, however, the firmware files must be resident on the S8300 or other TFTP server that is accessible to the media gateways.

For more detailed information on the firmware upgrade process, see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).
Upgrade tasks

Pre-upgrade tasks:
- Stop call processing on LSPs (if being used; optional) on page 112
- Connect to the active media server on page 113

Current configuration tasks:
- Start a SAT session on page 113
- Check link status using SAT (optional) on page 113
- Record all busyouts using SAT on page 114
- Check clock synchronization using SAT on page 114
- Disable scheduled maintenance using SAT on page 114
- Busyout MMI circuit packs using SAT (duplicated control network only) on page 114
- Check for translation corruption using SAT on page 115
- Access the Maintenance Web Interface on active media server on page 115
- Clear alarms on page 116
- Back up recovery system files on the active server on page 116
- Verify the backup from the active media server on page 116
- Suppress alarming on active media server on page 117
- Disconnect from the active media server on page 117
- Connect to the standby media server on page 117
- Clear the ARP cache on the laptop on page 117
- Access the Maintenance Web Interface on the standby media server on page 118
- Back up recovery system files on the standby media server on page 118
- Verify the backup on the standby media server on page 118
- Copy pre-upgrade service pack(s) to the standby media server on page 119
- Suppress alarming on standby media server on page 119

Upgrade tasks (first media server)
- Busy out the standby media server on page 120
- Check the software release on the standby media server on page 120
- Install the pre-upgrade service pack(s) on the standby media server on page 120
- Verify connectivity to customer’s network server on page 121
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

- **Back up the system files using Linux Migration—Backup** on page 121
- **Set Telnet parameters** on page 123
- **Erase the MBR on the standby media server** on page 124
- **Insert the Communication Manager CD in the standby media server** on page 124
- **Reboot the standby media server** on page 124
- **Verify reboot progress** on page 125
- **Install Communication Manager** on page 125
- **Relaunch the Maintenance Web Interface** on page 126
- **Verify software version** on page 127
- **Copy files to the media server** on page 127
- **Select media server type** on page 128
- **Configure the network parameters (optional)** on page 128
- **Verify connectivity to the network server (optional)** on page 129
- **Install post-upgrade service pack file** on page 130
- **Verify service pack installation** on page 131
- **Restore the Linux migration backup files** on page 131
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- **Verify software operation** on page 133
- **Release the standby media server** on page 133
- **Interchange the media servers** on page 134
- **Install the new license and Avaya authentication files on newly active media server** on page 134
- **Disconnect from the newly active media server** on page 134

**Upgrade tasks (second media server):**

- **Connect to the standby media server (second server)** on page 135
- **Access the Maintenance Web Interface on the standby media server (second server)** on page 135
- **Copy pre-upgrade service pack(s) to the standby media server (second server)** on page 135
- **Busy out the standby media server (second server)** on page 136
- **Check the software release on the standby media server (second server)** on page 136
- **Install the pre-upgrade service pack on the standby media server (second server)** on page 136
• **Verify connectivity to customer’s network server (optional—second server)** on page 137
• **Back up the system files using Linux Migration—Backup (second server)** on page 137
• **Erase the MBR on the standby media server (second server)** on page 139
• **Insert the Communication Manager CD in the standby media server (second server)** on page 140
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• **Verify reboot progress (second server)** on page 140
• **Install Communication Manager (second server)** on page 140
• **Relaunch the Maintenance Web Interface (second server)** on page 142
• **Verify software version (second server)** on page 142
• **Copy files to the media server (second server)** on page 143
• **Select media server type (second server)** on page 143
• **Configure the network parameters (optional—second server)** on page 144
• **Verify connectivity to the network server (optional—second server)** on page 145
• **Install post-upgrade service pack file (second server)** on page 146
• **Verify service pack installation (second server)** on page 147
• **Restore the Linux migration backup files (second server)** on page 147
• **Verify date and time (second server)** on page 149
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• **Verify operation of media servers** on page 150

**Post-Upgrade tasks:**

• **Enable scheduled maintenance using SAT** on page 151
• **Release MMI circuit packs using SAT (duplicated control network only)** on page 151
• **Busy out previously busied-out trunks using SAT** on page 151
• **Check for translation corruption using SAT** on page 151
• **Resolve alarms** on page 152
• **Back up files from the active media server** on page 152
• **Release alarm suppression (optional)** on page 152
• **Log off the administration applications on the active media server** on page 152
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

- Disconnect from the active media server on page 152
- Connect to the standby media server on page 153
- Back up files from standby media server on page 153
- Release alarm suppression on the standby media server on page 153
- Start call processing on the LSPs (if being used; optional) on page 153
- Log off the administration applications on the standby media server on page 154
- Register Avaya Communication Manager on page 154

Pre-upgrade tasks

Stop call processing on LSPs (if being used; optional)

The following steps stop Communication Manager on the LSP.

1. Connect to the services port (2) on the back of the main media server (primary controller).
2. From the Start menu on the laptop, click Start > Run to open the Run dialog box.
3. Type command or cmd and click OK to open an MS-DOS window.
4. Type telnet 192.11.13.6 and press Enter to access the primary controller (media server).
5. Within this Telnet session, type telnet IPAddress and press Enter, where IPAddress is the IP address of the S8300, to access the LSP.
6. Log in as craft.
7. Type stop -afcn and press Enter to stop potential call processing on the LSP.
   The S8300 (LSP) shuts down Communication Manager.
8. Repeat for each LSP.

⚠️ CAUTION:
The LSP’s Communication Manager must remain shut down while you upgrade the primary controller. After completing the primary controller upgrade, run save translations on the primary controller before restarting Communication Manager on the LSP. The save translations process automatically causes the G700’s endpoints to reregister with the primary controller.

See Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100) for more complete information.
Connect to the active media server

If on site, connect to the services port on the back of the active media server.
If off site, log onto the active media server using the actual IP address of the media server.

Start a SAT session

Note:
Tasks Check link status using SAT (optional) on page 113 through Check for translation corruption using SAT on page 115 use SAT commands and can only be done on the active media server.

The following steps start a SAT session.
1. Open a terminal emulation application, such as MS HyperTerminal.
2. Type 192.11.13.6 5023 and press Enter.
3. Log on as craft or dadmin.

Check link status using SAT (optional)

The following steps check the status of various links.

Note:
Because some links may be down by choice, make note of them before the upgrade.
1. Type display communication-interface links and press Enter.
2. Note all administered links.
3. Type status link number and press Enter for each administered link.
4. Check the following fields for the values listed:
   ● Link Status = connected
   ● Service State = in service
5. Type list signaling group and press Enter.
6. Note the signaling groups listed by number.
7. For each of the signaling groups listed, type status signaling group number and press Enter.
8. If any of the links are not up, make note of any that are down.
Record all busyouts using SAT

Type `display errors` and press `Enter`. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the upgrade.

Check clock synchronization using SAT

Type `status sync` and press `Enter` to verify that the clock synchronization is good. Make note of outages.

Disable scheduled maintenance using SAT

The following steps prevent scheduled daily maintenance from interfering with the upgrade.

1. To prevent scheduled daily maintenance from interfering with the update or upgrade, type `change system-parameters maintenance` and press `Enter`.

2. If scheduled maintenance is in progress, set the **Stop Time** field to 1 minute after the current time.

or

If scheduled maintenance is not in progress, set the **Start Time** field to a time after the upgrade will be completed.

For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 4 hours, set the **Start Time** field to 23:59.

Busyout MMI circuit packs using SAT (duplicated control network only)

The following steps locate all the MMI circuit packs that need to be busied out.

⚠️ **CAUTION:**
Multimedia-to-voice station calls are *not* preserved on an upgrade. Failure to busy-out the TN787 Multimedia Interface (MMI) circuit packs results in unusable TN787 and TN787 Multimedia Voice Conditioner ports.

1. Type `display system-parameters customer-options` and press `Enter`. On screen 2 or 3 under the Multimedia Call Handling (MMCH) options, check the **Basic** and **Enhanced** fields.

2. If either the **Basic** or **Enhanced** field is `y`, type `list configuration all` and press `Enter` to locate all MMI (TN787) circuit packs.

3. If there are MMI circuit packs, type `busyout board ` and press `Enter` for each MMI circuit pack.
Check for translation corruption using SAT

The following steps check for translation corruption.
1. Type `newterm` and press `Enter`.
2. If you see the following message:

   **Warning: Translation corruption detected**

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Access the Maintenance Web Interface on active media server

The following steps allow you to access the Maintenance Web Interface.

**Note:**

Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.

1. Launch the Web browser.
2. Type `192.11.13.6` in the Address field to open the logon page.
3. Log on as `craft` or `dadmin`. Or, if you are a customer, log in with a customer super user login.
4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

### Clear alarms

The following steps clear alarms.

1. On the Maintenance Web Interface, under **Alarms and Notification**, select **Current Alarms**.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve any major alarms using SAT commands on a terminal emulation application.

### Back up recovery system files on the active server

It is good practice to back up all the system configuration files in case there is a need to back out of the upgrade.

**Note:**

You can only save translations on the *active* media server.

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets, including **Avaya Call Processing (ACP) translations** and **Save ACP translations prior to backup**, and the backup method. Do *not* select **Full Backup** because this option does not save translations.

**Note:**

If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade procedure.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

### Verify the backup from the active media server

The following steps check that the backup was successful.

1. Under **Data Backup/Restore**, select **Backup History**.
2. Select the backup you want to check, and click Check Status.
   
   The status of the backup appears.
   
   Check that **Backup Successful** appears for every data set in the backup.
Suppress alarming on active media server

⚠️ CAUTION:
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.
1. Click **Start > Run** to open the **Run** dialog box.
2. Type **telnet 192.11.13.6** and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type **almsuppress -t time** and press **Enter** to suppress both dial-out and SNMP alarms. The variable **time** is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

   You see the following message

   **Alarm is suppressed. 120 minutes left.**
5. Logoff and close the dialog box.

Disconnect from the active media server

If on site, unplug the laptop from the services port on the back of the active media server.

Connect to the standby media server

If on site, connect to the services port (2) on the back of the **standby** media server.
If off site, log onto the standby media server using the actual IP address of the media server.

Clear the ARP cache on the laptop

The following steps clear the ARP cache.
1. From the laptop **Start** menu, click **Start > Run** to open the Run dialog box.
2. Type **command** and press **Enter** to open an MS-DOS window.
3. Type **arp -d 192.11.13.6** and press **Enter** to clear the ARP cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

      **The specified entry was not found.**
4. Type `ping -t 192.11.13.6` to access the media server. The `-t` causes the ping to repeat. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.

5. Type `ctrl c` to stop the ping.

6. Close the MS-DOS window.

**Access the Maintenance Web Interface on the standby media server**

The following steps allow you to access the Maintenance Web Interface.

1. Launch the Web browser.
2. Type `192.11.13.6` in the Address field to open the logon page.
3. Log on as `craft` or `dadmin`. Or, if you are a customer, log in with a customer super user login.
4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

**Back up recovery system files on the standby media server**

The following steps back up the system configuration files to the standby media server.

1. Under **Data Backup/Restore**, select **Backup Now**.
2. Select the data sets, including **Avaya Call Processing (ACP) translations**, and the backup method.
   
   Do **not** select **Full Backup** or **Save ACP translations prior to backup** as translations cannot be saved on a standby media server.
3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

**Verify the backup on the standby media server**

The following steps check that the backup was successful.

1. Under **Data Backup/Restore**, select **Backup History**.
2. Select the backup you want to check, and click Check Status.
   
   The status of the backup appears.

   Check that **Backup Successful** appears for every data set in the backup.
Copy pre-upgrade service pack(s) to the standby media server

Copy the pre-upgrade service pack(s) from the computer to the media server.

To copy files to the media server, complete the following steps:
1. On the Maintenance Web Interface, under Miscellaneous, select Download Files.
2. Select File(s) to download from the machine I’m using to connect to the server.
3. Click Browse next to the top field to open the Choose File window on your computer. Find the files that you need to copy to the media server.
4. Click Download to copy the file(s) to the media server.
   The files are automatically copied to the default file location.

Suppress alarming on standby media server

⚠️ CAUTION:
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.
1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft or dadmin.
4. Type almsuppress -t time and press Enter to suppress both dial-out and SNMP alarms. The variable time is the length of time the alarms will be suppressed up to 120 minutes (2 hours).
   You see the following message
   
   **Alarm is suppressed. 120 minutes left.**
5. Logoff and close the dialog box.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

Upgrade tasks (first media server)

Busy out the standby media server

The following steps busy out the standby media server.

1. On the Maintenance Web page, under Server, select Busy-Out Server. Then click Busy Out to busy out the standby server.

2. Click Status Summary to verify that the standby server is busied out.

Check the software release on the standby media server

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See Pre-upgrade service pack on page 106

Under Server click Software Version to see what software release is on the media server.

Install the pre-upgrade service pack(s) on the standby media server

Note:
Verify that the media server is busied out before installing the service pack(s).

You must install the pre-upgrade service pack(s) (patch) to release 1.2 or 1.3 of Communication Manager before backing up the system files. Use Telnet to access the media server.

1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft.
4. Type cd /var/home/ftp and press Enter to access the ftp directory.
5. At the prompt, type ls -ltr and press Enter to list files in the ftp directory.
The media server displays a list of files in the ftp directory.
6. Verify that the directory contains the *.tar.gz file(s) you have uploaded.
7. Type sudo patch_install patch.tar.gz, where patch is the release or issue number of the service pack (patch) file. (For example, 03.0.526.5-xxxx.tar.gz). Press Enter.
8. Repeat for second service pack if required.
9. Type patch_show and press Enter to list the service pack files installed on the media server to verify that the new file(s) was(were) installed.
10. Type `sudo patch_apply patch`, where `patch` is the release or issue number of the service pack just installed. (For example, `03.0.526.5-xxxx`). Do not use the `.tar.gz` extension at the end of the file name. Press **Enter**.

The media server goes through a software reset system.

11. Type `statapp -c` and press **Enter** to continuously refresh and view the processes as they come up.

Verify that everything says Up and Standby before typing additional commands.

To stop the continual refresh, press **ctrl c**.

12. Type `patch_show` again and press **Enter** to list Communication Manager files to verify the new service pack(s) was(were) applied.

### Verify connectivity to customer’s network server

If you choose to back up the files to a server on the customer’s network (not recommended), you need to verify that you can access that server by pinging it. If the customer has disabled ping on the network, then you will not be able to ping the server nor back up files to the network server. Work with the customer’s network administrator.

1. Under Diagnostics click **Execute Ping**.
2. Type the IP address of the server where the system files are to be stored and click **Execute Ping**.

If you can successfully ping the server, then you can back up the files.

### Back up the system files using Linux Migration—Backup

After the pre-upgrade service pack is installed, you must back up the files so they can be restored later. Use Telnet to access the media server.

⚠️ **CAUTION:**

When remastering the hard drive, the NIC port (Eth4 for Multi-Connect and Eth0 for IP Connect) for the customer network will not work; therefore you cannot restore the backed up files from the customer’s network without first reconfiguring the Ethernet port. The first choice for backing up files is to the PCMCIA flashcard.

⚠️ **CAUTION:**

Use the new menu item under Server Configuration and Upgrades titled Linux Migration—Backup.

**Note:**

Restart your browser before doing the next steps.
The following steps back up the system files onto the PCMCIA flashcard.

1. Place the PCMCIA flashcard into the bottom slot of the PCMCIA drive in the media server.
2. Under Server Configuration and Upgrades click Linux Migration—Backup.

3. Select "Initiate new backup" and click Submit.

4. Select Local PC card and type 1 (or more) in the Retain data sets at destination field.

   If you must back up to a server on the customer’s network, select FTP; fill in the User Name, Password, Host Name (must use host IP address), and Directory fields for where you are backing up the files.
Click **Submit**.

### Linux Migration - Backup Results

The backup has started. For backup results, click "Status". Select the most recent backup and click "Check Status".

1. **Status**
2. **Help**

5. Click **Status** to view the Backup History.

**Note:**

The Linux Migration backup status function is not enabled for Release 1.3.1. To check the backup status when upgrading from Release 1.3.1, under Data Backup/ Restore select **Backup Status**. Then select the backup set and click **Check Status**.

6. Check the box next to the file being backed up and click **Check Status**. When the backup is complete, the following message displays:

**Backup is finished**

⚠️ **Important:**

Check the text to verify that there are no error messages.

### Set Telnet parameters

**Note:**

Use a telnet session to access the information on the CD.

The Microsoft Telnet application may be set to send a carriage return (CR) and line feed (LF) each time you press Enter. The installation program sees this as 2 key presses. If running Windows 2000/XP, you need to correct this before you copy the Remaster Program to the hard drive.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet` and press **Enter** to open a Microsoft Telnet session.
3. Type `display` and press **Enter** to see the current settings. If message says

**Sending only CR**
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

then close the dialog box.

If message says

**Sending both CR & LF**

then continue with step 4.

4. Type `unset crlf` and press **Enter**.

5. Type `display` and press **Enter** to verify that the settings changed. The message says

**Sending only CR**

6. Close the dialog box.

---

**Erase the MBR on the standby media server**

The following steps erase the master boot record (MBR).

1. Click **Start > Run** to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `sudo erase_mbr` and press **Enter** to erase the MBR.
5. When you get the message

   **WARNING: Are you sure you want to erase the master boot record? (y/n) [n]**

   type **y** for yes.

6. Type **quit** to close down the telnet session.

---

**Insert the Communication Manager CD in the standby media server**

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.

---

**Reboot the standby media server**

⚠️ **Important:**

Once you shut down the media server, you will lose access to the Maintenance Web Interface.
The following steps reboots the media server.
1. On the Web Interface under Server, click Shutdown Server.
2. Select Immediate Shutdown now and Restart server after shutdown.
3. Click Shutdown Server.

Verify reboot progress

The following steps verifies the reboot progress
1. From the laptop Start menu, click Start > Run to open the Run dialog box.
2. Type command and press Enter to open an MS-DOS window.
3. Type arp -d 192.11.13.6 and press Enter to clear the ARP cache in the laptop.
4. Type ping -t 192.11.13.6 to access the media server. The -t causes the ping to repeat. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.
5. Type ctrl c to stop the ping.
6. Close the Run dialog box.

Install Communication Manager

The following steps install Avaya Communication Manager on the media server.

Note: Use a telnet session to access the information on the CD.
1. From the laptop Start menu, click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter to view the first screen.
To navigate on these screens, use the arrow keys to move to an option, then press the space bar to select the option. Press Enter to submit the screen.

3. Select Install, make sure <OK> is highlighted, and press Enter.

4. On the Select Release Version screen, make sure the Build line and <OK> is highlighted. Press Enter to partition the hard drive and reformat the partitions.

Once the drive is properly configured, the program begins the installation process and reports the progress.

```
21:26:38 | copying iputils-20020124-8.i386.rpm
21:26:38 | copying libattr-2.0.0-3.i386.rpm
21:26:38 | copying libcap-1.10-12.i386.rpm
21:26:39 | copying libelf-0.8.2-2.i386.rpm
21:26:39 | copying libgcc-3.2-7.i386.rpm
21:26:39 | copying libi686-6b-21.i386.rpm
21:26:39 | copying libtinfo-2.0.8-31.i386.rpm
21:26:39 | copying libtool-libs-1.4.2-12.i386.rpm
21:26:39 | copying losetup-2.11r-10.i386.rpm
21:26:39 | copying lrzsz-0.12.20-14.i386.rpm
21:26:39 | copying lsof-4.63-2.i386.rpm
21:26:39 | copying ltrace-0.9.10-12.i386.rpm
21:26:39 | copying minetty-1.00-3.i386.rpm
21:26:39 | copying mktemp-1.5-16.i386.rpm
21:26:39 | copying ncompress-4.2.4-31.i386.rpm
21:26:39 | copying net-tools-1.60-7.i386.rpm
21:26:40 | copying patch-2.5.4-14.i386.rpm
21:26:40 | copying pcre-3.9-5.i386.rpm
21:26:40 | copying popt-1.8-0.69V1.i386.rpm
21:26:40 | copying rdade-1.2-5.i386.rpm
21:26:40 | copying rusers-0.17-21.i386.rpm
21:26:40 | copying setserial-2.17-9.i386.rpm
```

These processes can take up to 20 minutes. When the media server is ready to reboot, the CD-ROM drive drawer opens. You must remove the CD from the drive at this time.

The reboot may take up to 3 minutes. The telnet session drops automatically.

## Relaunch the Maintenance Web Interface

You need to reopen your Web browser to access any new Web pages.

1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field and press Enter to open the logon page.
3. Log on as craft. Use the initial craft password and suppress alarm origination.
   This lets you know you've successfully reconnected to the media server.
4. Click Launch Maintenance Web Interface to get to the Main Menu.
Verify software version

The following steps verify the software version.
1. Under Server click **Software Version**.
2. Look in the **Reports as:** field to verify that the new software is running correctly.

Copy files to the media server

You must copy the remaining, required files to the media server. This includes, but is not limited to, the post-upgrade service pack file, license file, Avaya authentication file, and programmable circuit pack firmware. Do not copy the backup file using this method.

**Note:**
The latest firmware for the programmable circuit packs and media modules may be on the CD.

To copy files to the media server, complete the following steps:
1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I’m using to connect to the server**.
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.
4. Click **Download** to copy the file(s) to the media server.
   The files are automatically copied to the default file location.
Select media server type

You must select the media server type.

1. Under Server Configuration click Configure Server to open the first page (Select server type) of the Configure Server process. (If you did this earlier, you will not see this screen.)

2. Select the appropriate server type and click Continue.

Configure the network parameters (optional)

Note:

If you backed up the system files to the flashcard, skip this procedure and go to Install post-upgrade service pack file on page 130.

If you backed the system files up to the customer’s network, you must readminister the Ethernet port connecting to the customer’s network. You must have the host name, IP address, subnet mask and default gateway for the two media servers and the active server as well as the IP address for the Ethernet port connecting to the customer’s network.

Because the software upgrade wiped out the configuration data, you must configure the network parameters before restoring the backup files.

1. Under Server Configuration click Configure Server to open the first page.
2. Click **Continue** through the Review Notices to get to the **Specify how you want to use this wizard** page.

![Configure Server](image)

3. Select **Configure individual services** and click **Continue**.

4. Select Configure Interfaces from the menu on the left.

5. Fill in the correct IP address, Gateway, and Subnet mask (or use the default addresses) for the Ethernet port and select AUTOSENSE for the speed.

   - **S8700 IP**: Eth 0
   - **S8700 MC**: Eth 4

   Click **Change** to update and reboot the media server. When the screen displays

   **Successfully configured the ethernet interfaces.**

   the Ethernet ports are configured.

6. Click **Close Window** to close the Configure Server wizard.

**Verify connectivity to the network server (optional)**

**Note:**

If you backed up the system files to the flashcard, skip this procedure and go to **Install post-upgrade service pack file** on page 130.

To verify that the Ethernet port is working, ping from the media server the network server where the backup files are stored.

**Note:**

You may need to restart your browser before doing the next steps.
1. Under Diagnostics click Ping.
2. Type the IP address of the server where the system files are stored and click Execute Ping.
   If you can successfully ping the server, then you can restore the backed up Linux migration files.

**Install post-upgrade service pack file**

**Note:**
Skip this procedure if there is no Communication Manager service pack file to install.

This service pack may or may not be call preserving.

Use a telnet session to install the service pack file.

1. Click Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press Enter.
3. Log in as craft.
4. Type `cd /var/home/ftp/pub` and press Enter to access the pub directory.
5. At the prompt, type `ls -ltr` and press Enter to list files in the pub directory.
   The media server displays a list of files in the FTP directory. Verify that the directory contains the Communication Manager .tar.gz file you have uploaded, if any.
6. Type `update_unpack update.tar.gz`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press Enter.
7. Type `update_show` and press Enter to list Communication Manager files to verify the new service pack file was unpacked.
8. Type `update_activate update`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`). Do not use the .tar.gz extension at the end of the file name). Press Enter.
   The media server may reboot (reset system 4). If it reboots, it also may display the message `/opt/ecs/sbin/drestart 2 4 command failed`.
   Ignore this message. You must wait until the restart/reset completes before entering additional commands.
   The media server displays a message that the service pack was applied.
9. Type `update_show` again and press Enter to list Communication Manager files to verify the new service pack file was activated.
Verify service pack installation

The following steps show the latest service pack.

1. Under Server click **Software Version**.
2. Verify that the new service pack is listed.

**Note:**

Normally, you would need to use the Make Upgrade Permanent function on the Maintenance Web Interface at this point. However, this is not necessary for this upgrade because there is no previous software version in the alternate partition.

Restore the Linux migration backup files

⚠️ **CAUTION:**

Restore must be run only once. Running restore more than once may corrupt the system data. If a restore appears to have not completed, check the Backup History and Backup Logs on the Maintenance Web Interface, and check the system log in the bash command line interface. If all of these sources indicate that a restore has not completed, you can safely rerun the restore.

To restore backed up system files, perform the following steps:

1. Under Data Backup/Restore, click **View/Restore Data**.

<table>
<thead>
<tr>
<th>View/Restore Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>The View/Restore Web page lets you view backup data files from different sources.</td>
</tr>
</tbody>
</table>

**View current backup contents in**

- [ ] FTP
  - [ ] User Name
  - [ ] Password
  - [ ] Host Name
  - [ ] Directory
- [ ] Local Directory
  - [ ] Local PC Card

2. If you backed up to a PCMCIA flashcard, select "Local PC Card".

If you backed up to a server on the customer's network, select FTP; fill in the **User Name**,
Password, Host Name (must use host IP address), and Directory fields for the location of the backup files.

3. Select the backup file to restore (the file name begins with /upgrade-2.0_), then select **Force restore if server name mismatch** and **Force restore if backup version mismatch**.

4. Click **Restore** to restore all the system files.

5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

When done, the screen displays **Restore is finished**.

7. Type `drestart 1 4` and press **Enter** to load the restored translations.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

### Verify date and time

The following steps show the time and date.

1. Under Server click **Server Date/Time**.

   ![Server Date/Time](image)

   2. Verify that the date, time, and time zone are correct. Make changes as necessary.

   3. Click **Submit** only if you made changes.
Verify software operation

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade and before you release the standby media server from busy out.

2. Look in the Reports as: field to verify that the new software is running correctly. If it is, go to the next step.
3. Click Status Summary to verify that the media server is working.
4. Click Process Status.
5. Select Summary and Display once. Click Display to access the View Process Status Results screen.
6. Verify that all the processes say UP.
7. Make sure you can log in using Telnet.
   a. From the laptop Start menu, click Start > Run to open the Run dialog box.
   b. Type command and press Enter to open an MS-DOS window.
   c. Type arp -d 192.11.13.6 and press Enter to clear the ARP cache in the laptop. This command will respond with one of the following:
      - The command line prompt when the cache has been cleared.
      - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:
        The specified entry was not found.
   d. Type telnet 192.11.13.6 to access the media server and verify that you can log in.

If you do not get a login prompt, then follow the normal escalation procedure.

Release the standby media server

The following steps release the media server from busyout mode.

1. Under Server click Release Server to release the standby server from busyout mode.
2. Click Status Summary to verify that the standby server is no longer busied out.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

Interchange the media servers

The following steps interchange the active and standby media servers.

Note:
This is a non-call-preserving action. The Communication Manager reset is equivalent to a reset system 4.
2. Select Force interchange regardless of server status.
3. Click Interchange to make the newly upgraded standby server the new active server.
4. Click Status Summary to verify that the media server you are connected to is the active server.

Note:
Because the media servers are on different software loads, Standby Refreshed is no and Standby Shadowing is off.

Install the new license and Avaya authentication files on newly active media server

Note:
The license file must be installed on an active media server and before installing the Avaya authentication file.
For a major upgrade of Communication Manager, you need to load an updated license file.

Note:
At this time the media servers are on different releases of Communication Manager. Installing the license file reports an error.
1. Under Security click License File, select Install the license I previously downloaded, then click Submit to install the license file.
   The system tells you the license is installed successfully.
2. Under Security click Avaya Authentication, then click Install
   The system tells you the authentication is installed successfully.

Disconnect from the newly active media server

If on site, unplug the laptop from the services port on the back of the newly active media server.
Upgrade tasks (second media server)

Connect to the standby media server (second server)

If on site, connect to the services port (2) on the back of the standby media server. If off site, log onto the standby media server using the actual IP address of the media server.

Access the Maintenance Web Interface on the standby media server (second server)

The following steps allow you to access the Maintenance Web Interface.

Note: Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.

1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field to open the logon page.
3. Log on as craft or dadmin. Or, if you are a customer, log in with a customer super user login.
4. Click Launch Maintenance Web Interface to get to the Main Menu.

Copy pre-upgrade service pack(s) to the standby media server (second server)

Copy the pre-upgrade service pack(s) from the computer to the media server.

To copy files to the media server, complete the following steps:
1. On the Maintenance Web Interface, under Miscellaneous, select Download Files.
2. Select File(s) to download from the machine I’m using to connect to the server.
3. Click Browse next to the top field to open the Choose File window on your computer. Find the files that you need to copy to the media server.
4. Click Download to copy the file(s) to the media server.
   The files are automatically copied to the default file location.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

Busy out the standby media server (second server)

The following steps busy out the media server.

1. Under Server, select **Busy-Out Server.** Then click **Busy Out** to busy out the standby server.
2. Click **Status Summary** to verify that the standby server is busied out.

Check the software release on the standby media server (second server)

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See [Pre-upgrade service pack](#) on page 106.

Under Server click **Software Version** to see what software release is on the media server.

Install the pre-upgrade service pack on the standby media server (second server)

You must install the pre-upgrade service pack(s) (patch) to release 1.2 or 1.3 of Communication Manager before backing up the system files. Use Telnet to access the media server.

1. Click **Start > Run** to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft**.
4. Type `cd /var/home/ftp` and press **Enter** to access the ftp directory.
5. At the prompt, type `ls -ltr` and press **Enter** to list files in the ftp directory.
   The media server displays a list of files in the ftp directory.
6. Verify that the directory contains the *.tar.gz file(s) you have uploaded.
7. Type `sudo patch_install patch.tar.gz`, where `patch` is the release or issue number of the service pack (patch) file. (For example, `03.0.526.5-xxxx.tar.gz`). Press **Enter**.
8. Repeat for second service pack if required.
9. Type `patch_show` and press **Enter** to list the service pack files installed on the media server to verify that the new file(s) was(were) installed.
10. Type `sudo patch_apply patch`, where `patch` is the release or issue number of the service pack just installed. (For example, `03.0.526.5-xxxx`. Do not use the *.tar.gz extension at the end of the file name). Press **Enter**.
   The media server goes through a software reset system 4.
11. Type `statapp -c` and press `Enter` to continuously refresh and view the processes as they come up.
   Verify that everything says Up and Standby before typing additional commands.
   To stop the continual refresh, press `ctrl c`.

12. Type `patch_show` again and press `Enter` to list Communication Manager files to verify the new service pack(s) was(were) applied.

**Verify connectivity to customer’s network server (optional—second server)**

If you choose to back up the files to a server on the customer’s network (not recommended), you need to verify that you can access that server by pinging it. If the customer has disabled ping on the network, then you will not be able to ping the server nor back up files to the network server. Work with the customer’s network administrator.

1. Under Diagnostics click **Execute Ping**.
2. Type the IP address of the server where the system files are to be stored and click **Execute Ping**.
   If you can successfully ping the server, then you can back up the files.

**Back up the system files using Linux Migration—Backup (second server)**

After the pre-upgrade service pack is installed, you must back up the files so they can be restored later. Use Telnet to access the media server.

⚠️ **CAUTION:**
When remastering the hard drive, the NIC port (Eth4 for Multi-Connect and Eth0 for IP Connect) for the customer network will not work; therefore you cannot restore the backed up files from the customer’s network without first reconfiguring the Ethernet port. The first choice for backing up files is to the PCMCIA flashcard.

⚠️ **CAUTION:**
Use the new menu item under Server Configuration and Upgrades titled Linux Migration—Backup.

**Note:**
Restart your browser before doing the next steps.

The following steps back up the system files onto the PCMCIA flashcard.

1. Place the PCMCIA flashcard into the *bottom* slot of the PCMCIA drive in the media server.
2. Under Server Configuration and Upgrades click **Linux Migration—Backup**.

![Linux Migration - Backup](image)

3. Select "Initiate new backup" and click **Submit**.

![Linux Migration - Backup Initiate](image)

4. Select Local PC card and type 1 (or more) in the **Retain data sets at destination** field.

If you must back up to a server on the customer’s network, select FTP; fill in the **User Name**, **Password**, **Host Name** (*must use host IP address*), and **Directory** fields for where you are backing up the files.
Click Submit.

![Linux Migration - Backup Results]

5. Click Status to view the Backup History.

**Note:**

The Linux Migration backup status function is not enabled for Release 1.3.1. To check the backup status when upgrading from Release 1.3.1, under Data Backup/Restore select Backup Status. Then select the backup set and click Check Status.

6. Check the box next to the file being backed up and click Check Status. When the backup is complete, the following message displays:

Backup is finished

⚠️ **Important:**

Check the text to verify that there are no error messages.

---

**Erase the MBR on the standby media server (second server)**

The following steps erase the master boot record (MBR).

1. Click Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press Enter.
3. Log in as **craft** or **dadmin**.
4. Type `sudo erase_mbr` and press Enter to erase the MBR.
5. When you get the message

   **WARNING:** Are you sure you want to erase the master boot record? (y/n) [n]

   type y for yes.

6. Type `quit` to close down the telnet session.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

Insert the Communication Manager CD in the standby media server (second server)

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.

Reboot the standby media server (second server)

⚠️ Important:
Once you shut down the media server, you will lose access to the Maintenance Web Interface.

The following steps reboots the media server.
1. On the Web Interface under Server, click Shutdown Server.
2. Select Immediate Shutdown now and Restart server after shutdown.
3. Click Shutdown Server.

Verify reboot progress (second server)

The following steps verifies the reboot progress
1. From the laptop Start menu, click Start > Run to open the Run dialog box.
2. Type command and press Enter to open an MS-DOS window.
3. Type `arp -d 192.11.13.6` and press Enter to clear the ARP cache in the laptop.
4. Type `ping -t 192.11.13.6` to access the media server. The -t causes the ping to repeat. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.
5. Type `ctrl c` to stop the ping.
6. Close the Run dialog box.

Install Communication Manager (second server)

The following steps install Avaya Communication Manager on the media server.

Note:
Use a telnet session to access the information on the CD.
1. From the laptop Start menu, click Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter** to view the first screen.

![Upgrade task menu](image)

**Note:**
To navigate on these screens, use the arrow keys to move to an option, then press the space bar to select the option. Press **Enter** to submit the screen.

3. Select **Install**, make sure `<OK>` is highlighted, and press **Enter**.
4. On the **Select Release Version** screen, make sure the Build line and <OK> is highlighted. Press **Enter** to partition the hard drive and reformat the partitions.

Once the drive is properly configured, the program begins the installation process and reports the progress.

These processes can take up to 20 minutes. When the media server is ready to reboot, the CD-ROM drive drawer opens. You must remove the CD from the drive at this time.

The reboot may take up to 3 minutes. The telnet session drops automatically.

**Relaunch the Maintenance Web Interface (second server)**

You need to reopen your Web browser to access any new Web pages.

1. Launch the Web browser.
2. Type 192.11.13.6 in the **Address** field to open the logon page.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Pages** to get to the Main Menu.

**Verify software version (second server)**

The following steps verify the software version.

1. Under Server click **Software Version**.
2. Look in the **Reports as:** field to verify that the new software is running correctly.
Copy files to the media server (second server)

You must copy the remaining, required files to the media server. This includes, but is not limited to, the post-upgrade service pack file, license file, Avaya authentication file, and programmable circuit pack firmware. Do not copy the backup file using this method.

Note:
The latest firmware for the programmable circuit packs and media modules may be on the CD.

To copy files to the media server, complete the following steps:
1. On the Maintenance Web Interface, under Miscellaneous, select Download Files.
2. Select File(s) to download from the machine I'm using to connect to the server.
3. Click Browse next to the top field to open the Choose File window on your computer. Find the files that you need to copy to the media server.
4. Click Download to copy the file(s) to the media server.

The files are automatically copied to the default file location.

Select media server type (second server)

Note:
If you skipped the previous task, you need to select the media server type before you install the post-upgrade patch.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

The following steps determine the media server type.

1. Under Server Configuration click **Configure Server** to open the first page (Select server type) of the Configure Server process. (If you did this earlier, you will not see this screen.)

   ![Configure Server](image)

   **Steps**
   - Review Notices
   - Set Identities
   - Configure Interfaces
   - Configure LSP
   - Configure Switches
   - Set DNS/DHCP
   - Set Static Routes
   - Configure Time Server
   - Set Modem Interface
   - Update System

   **Select server type:**
   - The server type for this server is not set. Select which type of server this is:
     - Avaya S8700 Series Media Server for Multi-Connect configuration
     - Avaya S8700 Series Media Server for IP Connect configuration

   Click **CONTINUE** to proceed.

2. Select the appropriate server type and click **Continue**.

**Configure the network parameters (optional—second server)**

**Note:**
- If you backed up the system files to the flashcard, skip this procedure and go to **Install post-upgrade service pack file (second server)** on page 146.
- If you backed the system files up to the customer’s network, you must readminister the Ethernet port connecting to the customer’s network. You must have the host name, IP address, subnet mask and default gateway for the two media servers and the active server as well as the IP address for the Ethernet port connecting to the customer’s network.
Because the software upgrade wiped out the configuration data, you must configure the network parameters before restoring the backup files.

1. Click **Continue** through the Review Notices to get to the **Specify how you want to use this wizard** page.

2. Select **Configure individual services** and the correct server number and click **Continue**.

3. Select **Configure Interfaces** from the menu on the left.

4. Fill in the correct IP address, Gateway, and Subnet mask (or use the default addresses) for the Ethernet port and select **AUTOSENSE** for the speed.
   
   - **S8700 IP**: Eth 0
   - **S8700 MC**: Eth 4
   
   Click **Change** to update and reboot the media server. When the screen displays

   **Successfully configured the ethernet interfaces.**

   the Ethernet ports are configured.

5. Click **Close Window** to close the Configure Server wizard.

**Verify connectivity to the network server (optional—second server)**

**Note:**

If you backed up the system files to the flashcard, skip this procedure and go to **Install post-upgrade service pack file (second server)** on page 146.
To verify that the Ethernet port is working, ping from the media server the network server where
the backup files are stored.

**Note:**
You may need to restart your browser before doing the next steps.

1. Under Diagnostics click **Ping**.
2. Type the IP address of the server where the system files are stored and click **Execute Ping**.
   If you can successfully ping the server, then you can restore the backed up Linux migration
   files.

### Install post-upgrade service pack file (second server)

**Note:**
Skip this procedure if there is no Communication Manager service pack file to
install.

This service pack may or may not be call preserving.

Use a telnet session to install the service pack file.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft**.
4. Type `cd /var/home/ftp/pub` and press **Enter** to access the pub directory.
5. At the prompt, type `ls -ltr` and press **Enter** to list files in the pub directory.
   The media server displays a list of files in the FTP directory. Verify that the directory
   contains the Communication Manager .tar.gz file you have uploaded, if any.
6. Type `update_unpack update.tar.gz`, where **update** is the release or issue number of
   the latest service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press **Enter**.
7. Type `update_show` and press **Enter** to list Communication Manager files to verify the new
   service pack file was unpacked.
8. Type `update_activate update`, where **update** is the release or issue number of the
   latest service pack file. (For example, `00.0.339.4-xxxx`). Do not use the .tar.gz extension
   at the end of the file name). Press **Enter**.
   The media server may reboot (reset system 4). If it reboots, it also may display the message

   `/opt/ecs/sbin/drestart 2 4 command failed.`
Ignore this message. You must wait until the restart/reset completes before entering additional commands.

The media server displays a message that the service pack was applied.

9. Type `update show` again and press Enter to list Communication Manager files to verify the new service pack file was activated.

**Verify service pack installation (second server)**

The following steps show the latest service pack.

1. Under Server click **Software Version**.
2. Verify that the new service pack is listed.

**Note:**

Normally, you would need to use the Make Upgrade Permanent function on the Maintenance Web Interface at this point. However, this is not necessary for this upgrade because there is no previous software version in the alternate partition.

** Restore the Linux migration backup files (second server)**

⚠️ **CAUTION:**

Restore must be run only once. Running restore more than once may corrupt the system data. If a restore appears to have not completed, check the Backup History and Backup Logs on the Maintenance Web Interface, and check the system log in the Linux command line interface. If all of these sources indicate that a restore has not completed, you can safely rerun the restore.
To restore backed up system files, perform the following steps:

1. Under Data Backup/Restore, click **View/Restore Data**.

![View/Restore Data](image)

2. If you backed up to a PCMCIA flashcard, select "Local PC Card".

   If you backed up to a server on the customer's network, select FTP; fill in the **User Name**, **Password**, **Host Name** *(must use host IP address)*, and **Directory** fields for the location of the backup files.

3. Select the backup file to restore (the file name begins with `/upgrade-2.0_`), then select **Force restore if server name mismatch** and **Force restore if backup version mismatch**.

4. Click **Restore** to restore all the system files.

5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

   When done, the screen displays **Restore is finished**.

7. Type `drestart 1 4` and press **Enter** to load the restored translations.

   If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.
Verify date and time (second server)

The following steps show the time and date.

1. Under Server click **Server Date/Time**.

   ![Server Date/Time](image)

   The current time is: **Tue Aug 19 17:42:58 EDT 2003**

   - Date [mm/dd/yyyy]
   - Select time [hh:mm] 24-hour format
   - Time Zone

   - Submit
   - Help

2. Verify that the date, time, and time zone are correct. Make changes as necessary.
3. Click **Submit** only if you made changes.

Verify software operation (second server)

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade and before you release the standby media server from busy out.

1. Under Server click **Software Version**.
2. Look in the **Reports as:** field to verify that the new software is running correctly. If it is, go to the next step.
3. Click **Status Summary** to verify that the media server is working.
4. Click **Process Status**.
5. Select **Summary and Display once**. Click **Display** to access the View Process Status Results screen.
6. Verify that all the processes say **UP**.
7. Make sure you can log in using Telnet.
   a. From the laptop Start menu, click **Start > Run** to open the Run dialog box.
b. Type **command** and press **Enter** to open an MS-DOS window.

c. Type **arp -d 192.11.13.6** and press **Enter** to clear the ARP cache in the laptop. This command will respond with one of the following:

- The command line prompt when the cache has been cleared.
- The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

  **The specified entry was not found.**

d. Type **telnet 192.11.13.6** to access the media server and verify that you can log in.

  If you do not get a login prompt, then follow the normal escalation procedure.

**Release the standby media server (second server)**

The following steps release the media server from busyout mode.

1. Under **Server** click **Release Server** to release the standby server from busyout mode.
2. Click **Status Summary** to verify that the standby server is no longer busied out.

**Disconnect from the standby media server (second server)**

If on site, unplug the laptop from the services port on the back of the standby media server.

**Connect to the active media server**

If on site, connect to the services port on the back of the **active** media server.
If off site, log onto the standby media server using the actual IP address of the media server.

**Verify operation of media servers**

The following step verifies the operation of the media servers.

1. Click **View Summary Status** to verify that the following items are working:
   - Duplicated? yes
   - Standby Busied? no
   - Standby Refreshed? yes
   - Standby Shadowing: on
   - Duplication Link: up
Post-Upgrade tasks

Note:
Tasks Enable scheduled maintenance using SAT on page 151 through Check for translation corruption using SAT on page 151 use SAT commands and can only be done on the active media server.

Enable scheduled maintenance using SAT

The following steps enable scheduled maintenance.

1. Type `change system-parameters maintenance` and press Enter.
2. Ensure that the Start Time and Stop Time fields’ administration is the same as before the upgrade.

Release MMI circuit packs using SAT (duplicated control network only)

Type `release board UUCSS` and press Enter to release the circuit packs that you busied out in the Busyout MMI circuit packs using SAT (duplicated control network only) on page 114 section.

Busy out previously busied-out trunks using SAT

Busy out trunks that were busied out before the upgrade (see Record all busyouts using SAT on page 114).

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press Enter.
2. If you see the following message:
   
   **Warning: Translation corruption detected**

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

Resolve alarms

Use the Maintenance Web Interface.
1. Under Alarms click Current Alarms to examine the alarm log.
2. Select the server alarms to be cleared and click Clear.
3. Resolve new alarms since the upgrade using SAT commands and the Maintenance Commands Reference and Alarms Maintenance books.

Back up files from the active media server

The following steps back up the system configuration files.
1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets and the backup method.
3. Select Avaya Call Processing (ACP) translations.
4. Click Start Backup to begin the back up process. Wait until the backup completes.

Release alarm suppression (optional)

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.
1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft or dadmin.
4. Type almsuppress -n and press Enter to release alarm suppression.
5. Log off.

Log off the administration applications on the active media server

When you have completed all the administration, log off all the applications used.

Disconnect from the active media server

If on site, unplug the laptop from the services port on the back of the active media server.
Connect to the standby media server

If on site, connect to the services port on the back of the standby media server.
If off site, log onto the standby media server using the actual IP address of the media server.

Back up files from standby media server

The following steps back up the system configuration files to the standby media server.
1. Under Data Backup/Restore, select Backup Now.
2. Select the data sets, including Avaya Call Processing (ACP) translations, and the backup method.
   - Do not select Full Backup or Save ACP translations prior to backup as translations cannot be saved on a standby media server.
3. Click Start Backup to begin the back up process. Wait until the backup completes.

Release alarm suppression on the standby media server

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.
1. Click Start > Run to open the Run dialog box
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft.
4. Type almsuppress -n and press Enter to release alarm suppression.
5. Log off.

Start call processing on the LSPs (if being used; optional)

If the S8700 series media server is the primary controller for a G350 or G700 Media Gateway equipped with a local survivable processor (LSP) and you shut down the media server before you upgraded the software, you must restart call processing on the LSP.

⚠️ Important:
You must be connected to the LSP on which you are upgrading the software.
Upgrading Communication Manager on Avaya S8700 Media Server from R1.x to R3.0

The following administration is done when connected to the primary controller (media server) using telnet.

1. From the Start menu on the laptop, click **Start > Run** to open the Run dialog box
2. Type **command** or **cmd** to open an MS-DOS window.
3. Type **telnet 192.11.13.6** to access the S8700.
4. Type **telnet IPaddress**, where **IPaddress** is the IP address of the S8300.
5. Log in as **craft** or **dadmin**.
6. At the prompt type **start -afcn** and press **Enter** to restart call processing on the LSP.
7. Repeat for each LSP.

Refer to *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100) for more complete information.

**Log off the administration applications on the standby media server**

When you have completed all the administration, log off all the applications used.

**Register Avaya Communication Manager**

Follow standard procedures for registering the new software.
Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web Interface

This procedure is for upgrading Avaya Communication Manager on an existing, registered Avaya S8700 series media server running Release 2.x of Avaya Communication Manager. This method uses the Manage Software link on the Maintenance Web Interface. If the media server is running Release 2.1 or later, you may use the Upgrade Tool. See Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool.

⚠️ Important:
Upgrading from Release 2.x to Release 3.0 or later requires installing a pre-upgrade service pack (software update) before upgrading Communication Manager. This service pack supports the upgrade to Release 3.0. See Pre-upgrade service pack on page 156 for information on which service pack to use.

Upgrading from Release 2.x to Release 3.0 requires an updated license file. For information on generating a license file, see License and Avaya authentication files on page 49 in Chapter 2: Upgrading Software on Media Servers on page 45.

⚠️ Important:
If you have a Survivable Remote EPN or Manual Backup Servers (MBS), you can no longer use them as they cannot be upgraded to Release 3.0. You can migrate the MBSs to Enterprise Survivable Servers (ESSs); see Avaya Enterprise Survivable Servers (ESS) User Guide (03-300428) for information.

Although you always upgrade Communication Manager on a busied-out standby media server, you can access SAT commands only on the active media server. Some pre-upgrade steps are done on the active media server first, then you move to the standby media server for the actual software upgrade. Some post-upgrade steps are done on the active media server, also.

⚠️ CAUTION:
Rebooting an active media server causes a service interruption. Make sure you are on a busied out, standby media server when upgrading the software.
Prerequisites

You must complete several tasks before going on site and beginning the upgrade. For pre-site tasks, see Pre-site checklist on page 47 in Chapter 2: Upgrading Software on Media Servers on page 45.

TN2312AP/BP IPSI circuit pack upgrades

The TN2312AP/BP IPSI circuit packs must have the most recent release of the firmware before upgrading Communication Manager on the media server. Upgrade the IPSI firmware first. Go to Upgrading firmware on the IPSIs on page 219 for firmware upgrade procedures.

Pre-upgrade service pack

This upgrade requires a pre-upgrade service pack. The service pack filename differs, depending on which software load the media server is on. See Software release and load for the software load associated with each release.

CAUTION:
If the customer’s system has Release 2.x of Communication Manager but has a field load other than those listed in the table, do not use this section to upgrade Communication Manager to Release 3.0. You must escalate.

Table 6: Software release and load

<table>
<thead>
<tr>
<th>Software release of existing media server</th>
<th>Associated software load</th>
<th>Service pack filename</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 2.0</td>
<td>R012x.00.0.219.0</td>
<td>00.0.219.0-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.0.1</td>
<td>R012x.00.1.221.1</td>
<td>00.1.221.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1</td>
<td>R012x.01.0.411.7</td>
<td>01.0.411.7-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1.1</td>
<td>R012x.01.1.414.1</td>
<td>01.1.414.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2</td>
<td>R012x.02.0.111.4</td>
<td>02.0.111.4-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2.1</td>
<td>R012x.02.0.xxx.x</td>
<td>02.0.xxx.x-xxxx.tar.gz</td>
</tr>
</tbody>
</table>
Upgrade of LSPs and media gateways (if being used)

Note:
If the customer has no Branch Media Gateways or no local survivable processors (LSPs), skip these tasks and go to Connect to the active media server on page 162.

If the media server is the primary controller for a G350 or G700 Media Gateway equipped with a local survivable processor (LSP), you must upgrade Communication Manager on the LSPs (S8300) before you upgrade Communication Manager on the primary controller. If the configuration is using G150, G350, or G700 Media Gateways and media modules and newer firmware exists for them, you must upgrade the firmware on them. The correct order is

- First, if using LSPs, upgrade Communication Manager on the S8300 Media Server to the latest version.
- Second, upgrade the firmware on the media gateway and media modules to the latest version.
- Third, upgrade Communication Manager on the primary controller (S8700 series media server) to the latest version.

Upgrade of Communication Manager on the LSPs

For more detailed information on the upgrade process, refer to Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100).

Note:
Although the LSPs remain registered with the primary controller, the LSPs will not accept translations if they are running an older version of Avaya Communication Manager than the primary controller.

You may use the Upgrade Tool, available on the S8700 series media server, to upgrade Communication Manager on all the LSPs. To use the tool, however, the following files must be resident on the S8300 (LSP):

- Communication Manager
- License file
- Pre-upgrade service pack. The service pack must also be activated on each LSP.

For more detailed information on using the Upgrade Tool, refer to the job aid titled LSP/Gateway Upgrade Tool (555-245-757).
Stopping and starting LSPs

Before you upgrade the S8700 series media servers, you may want to stop call processing on the LSPs. This allows the media gateway and IP telephones to quickly reregister with the primary controller after the upgrade.

If you stop call processing on the LSPs, you must restart them when the primary controller upgrade is complete. In addition, stopping call processing on the LSPs has the following consequences:

- During the interchange between the active and standby media servers, analog and digital phone calls are dropped.
- New calls to or from IP phones cannot be made during the interchange.
- If the upgrade has problems such that service from both servers is lost, all phones will be out of service, including phones assigned to backup service on the LSPs.

If you do not stop call processing on the LSPs, all phones have service during the time the LSPs are controlling calls even if there is a problem with the primary controller’s upgrade. In addition, not stopping call processing on the LSPs has the following consequences:

- IP phones will most likely register to the appropriate LSP during the server upgrade.
- You must reset the LSPs when the primary controller upgrade is complete to reregister the IP phones to the primary controller.

Upgrade the LSPs

For detailed information on the upgrade process, see Chapter 12: “Manual upgrade of an existing S8300A to R3.0” in Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100).

Upgrade firmware on media gateways and media modules

You may use the Upgrade Tool to upgrade the firmware on all the media gateways and media modules. To use the tool, however, the firmware files must be resident on the S8300.

For more detailed information on the firmware upgrade process, see Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100).
Upgrade tasks

Pre-upgrade tasks:

- Stop call processing on LSPs (if being used; optional) on page 161
- Connect to the active media server on page 162

Current configuration tasks:

- Start a SAT session on page 162
- Check link status using SAT (optional) on page 162
- Record all busyouts using SAT on page 163
- Check clock synchronization using SAT on page 163
- Disable scheduled maintenance using SAT on page 163
- Busyout MMI circuit packs using SAT (duplicated control network only) on page 164
- Check for translation corruption using SAT on page 164
- Access the Maintenance Web Interface on active media server on page 164
- Copy files to the active media server on page 165
- Clear alarms on page 166
- Back up recovery system files on the active server on page 166
- Verify the backup from the active media server on page 166
- Suppress alarming on active media server on page 166
- Disconnect from the active media server on page 167
- Connect to the standby media server on page 167
- Clear the ARP cache on the laptop on page 167
- Access the Maintenance Web Interface on the standby media server on page 168
- Copy files to the standby media server on page 168
- Back up recovery system files on the standby media server on page 168
- Verify the backup on the standby media server on page 169
- Suppress alarming on standby media server on page 169

Upgrade tasks (first media server)

- Busy out the standby media server on page 169
- Check the software release on the standby media server on page 170
- Activate the pre-upgrade service pack on the standby media server on page 170
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- **Insert the Communication Manager CD in the standby media server** on page 171
- **Copy Communication Manager on the standby media server** on page 171
- **Install Communication Manager on the standby media server** on page 172
- **Reboot the standby media server** on page 173
- **Check reboot progress** on page 174
- **Relaunch Web browser on standby media server** on page 174
- **Verify software operation** on page 175
- **Make upgrade permanent on standby media server** on page 175
- **Install post-upgrade service pack (if any) on standby media server** on page 176
- **Release the standby media server** on page 177
- **Interchange the media servers** on page 177
- **Install the new license and Avaya authentication files on newly active media server** on page 177
- **Disconnect from the newly active media server** on page 178

Upgrade tasks (second media server):

- **Connect to the standby media server (second server)** on page 178
- **Access the Maintenance Web Interface on the standby media server (second server)** on page 178
- **Busy out the standby media server (second server)** on page 178
- **Check the software release on the standby media server (second server)** on page 178
- **Activate the pre-upgrade service pack on the standby media server (second server)** on page 179
- **Insert the software CD in the standby media server (second server)** on page 179
- **Copy Communication Manager to the standby media server (second server)** on page 180
- **Install Communication Manager on the standby media server (second server)** on page 181
- **Reboot the standby media server (second server)** on page 182
- **Check reboot progress (second server)** on page 183
- **Relaunch Web browser on standby media server (second server)** on page 183
- **Verify software operation (second server)** on page 183
- **Make upgrade permanent on standby media server (second server)** on page 184
- **Install post-upgrade service pack (if any) on standby media server (second server)** on page 185
- **Release the standby media server (second server)** on page 185
Upgrade tasks

● Disconnect from the standby media server (second server) on page 186
● Connect to the active media server on page 186
● Verify operation of media servers on page 186

Post-Upgrade tasks:

● Enable scheduled maintenance using SAT on page 186
● Release MMI circuit packs using SAT (duplicated control network only) on page 186
● Busy out previously busied-out trunks using SAT on page 187
● Check for translation corruption using SAT on page 187
● Resolve alarms on page 187
● Back up files from the active media server on page 187
● Release alarm suppression (optional) on page 187
● Log off the administration applications on the active media server on page 188
● Disconnect from the active media server on page 188
● Connect to the standby media server on page 188
● Back up files from standby media server on page 188
● Release alarm suppression on the standby media server on page 188
● Start call processing on the LSPs (if being used; optional) on page 189
● Log off the administration applications on the standby media server on page 189
● Register Avaya Communication Manager on page 189

Pre-upgrade tasks

Stop call processing on LSPs (if being used; optional)

The following steps stop Communication Manager on the LSP.

1. Connect to the services port (2) on the back of the main media server (primary controller).
2. From the Start menu on the laptop, click Start > Run to open the Run dialog box.
3. Type command or cmd and click OK to open an MS-DOS window.
4. Type telnet 192.11.13.6 and press Enter to access the primary controller (media server).
5. Within this Telnet session, type telnet IPaddress and press Enter, where IPaddress is the IP address of the S8300, to access the LSP.
6. Log in as **craft**.
7. Type `stop -afcn` and press **Enter** to stop potential call processing on the LSP.
   The S8300 (LSP) shuts down Communication Manager.
8. Repeat for each LSP.

⚠️ **CAUTION:**

The LSP’s Communication Manager must remain shut down while you upgrade the primary controller. After completing the primary controller upgrade, run `save translations` on the primary controller before restarting Communication Manager on the LSP. The save translations process automatically causes the G700’s endpoints to reregister with the primary controller.

See *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100) for more complete information.

**Connect to the active media server**

If on site, connect to the services port on the back of the **active** media server.
If off site, log onto the active media server using the actual IP address of the media server.

**Start a SAT session**

**Note:**

Tasks **Check link status using SAT (optional)** on page 162 through **Check for translation corruption using SAT** on page 164 use SAT commands and can only be done on the **active** media server.

The following steps start a SAT session.

1. Open a terminal emulation application, such as MS HyperTerminal.
2. Type `192.11.13.6 5023` and press **Enter**.
3. Log on as **craft** or **dadmin**.

**Check link status using SAT (optional)**

The following steps check the status of various links.

**Note:**

Because some links may be down by choice, make note of them before the upgrade.

1. Type `display communication-interface links` and press **Enter**.
2. Note all administered links.

3. Type `status link number` and press `Enter` for each administered link.

4. Check the following fields for the values listed:
   - `Link Status = connected`
   - `Service State = in service`

5. Type `list signaling group` and press `Enter`.

6. Note the signaling groups listed by number.

7. For each of the signaling groups listed, type `status signaling group number` and press `Enter`.

8. If any of the links are not up, make note of any that are down.

**Record all busyouts using SAT**

Type `display errors` and press `Enter`. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the upgrade.

**Check clock synchronization using SAT**

Type `status sync` and press `Enter` to verify that the clock synchronization is good. Make note of outages.

**Disable scheduled maintenance using SAT**

The following steps prevent scheduled daily maintenance from interfering with the upgrade.

1. To prevent scheduled daily maintenance from interfering with the update or upgrade, type `change system-parameters maintenance` and press `Enter`.

2. If scheduled maintenance is in progress, set the `Stop Time` field to 1 minute after the current time.

   or

   If scheduled maintenance is not in progress, set the `Start Time` field to a time after the upgrade will be completed.

   For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 4 hours, set the `Start Time` field to 23:59.
Busyout MMI circuit packs using SAT (duplicated control network only)

The following steps locate all the MMI circuit packs that need to be busied out.

⚠️ CAUTION:
Multimedia-to-voice station calls are not preserved on an upgrade. Failure to busy-out the TN787 Multimedia Interface (MMI) circuit packs results in unusable TN787 and TN787 Multimedia Voice Conditioner ports.

1. Type `display system-parameters customer-options` and press Enter. On screen 2 or 3 under the Multimedia Call Handling (MMCH) options, check the Basic and Enhanced fields.
2. If either the Basic or Enhanced field is y, type `list configuration all` and press Enter to locate all MMI (TN787) circuit packs.
3. If there are MMI circuit packs, type `busyout board UUCSS` for each MMI circuit pack.

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press Enter.
2. If you see the following message:
   
   Warning: Translation corruption detected
   
   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Access the Maintenance Web Interface on active media server

The following steps allow you to access the Maintenance Web Interface.

Note:
Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.

1. Launch the Web browser.
2. Type `192.11.13.6` in the Address field to open the logon page.
3. Log on as **craft** or **dadmin**. Or, if you are a customer, log in with a customer super user login.

4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

**Copy files to the active media server**

Copy the pre- and post-upgrade service pack files from the computer to the media server.

⚠️ **CAUTION:**

Do not transfer files across the duplication link to the other media server. You must connect to the media server that you are copying the files to.

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I’m using to connect to the server**.
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.
4. Click **Download** to copy the file(s) to the media server.

   The files are automatically copied to the default file location.
Clear alarms

The following steps clear alarms.
2. Select the server alarms to be cleared and click Clear.
3. Resolve any major alarms using SAT commands on a terminal emulation application.

Back up recovery system files on the active server

It is good practice to back up all the system configuration files in case there is a need to back out of the upgrade.

Note:
You can only save translations on the active media server.

The following steps back up the system configuration files.
1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets, including Avaya Call Processing (ACP) translations and Save ACP translations prior to backup, and the backup method. Do not select Full Backup because this option does not save translations.

Note:
If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade procedure.
3. Click Start Backup to begin the back up process. Wait until the backup completes.

Verify the backup from the active media server

The following steps check that the backup was successful.
1. Under Data Backup/Restore, select Backup History.
2. Select the backup you want to check, and click Check Status.
   The status of the backup appears.
   Check that Backup Successful appears for every data set in the backup.

Suppress alarming on active media server

⚠️ CAUTION:
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.
The following steps suppress alarming.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -t time` and press **Enter** to suppress both dial-out and SNMP alarms. The variable `time` is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

You see the following message

**Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.

### Disconnect from the active media server

If on site, unplug the laptop from the services port on the back of the active media server.

### Connect to the standby media server

If on site, connect to the services port (2) on the back of the **standby** media server.

If off site, log onto the standby media server using the actual IP address of the media server.

### Clear the ARP cache on the laptop

The following steps clear the ARP cache.

1. From the laptop **Start menu**, click **Start > Run** to open the Run dialog box.
2. Type `command` and press **Enter** to open an MS-DOS window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the ARP cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

   **The specified entry was not found.**

4. Type `ping -t 192.11.13.6` to access the media server. The `-t` causes the ping to repeat until you get a response. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.
5. Type `ctrl c` to stop the ping.
6. Close the MS-DOS window.
Access the Maintenance Web Interface on the standby media server

The following steps allow you to access the Maintenance Web Interface.

1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field to open the logon page.
3. Log on as craft or dadmin. Or, if you are a customer, log in with a customer super user login.
4. Click Launch Maintenance Web Interface to get to the Main Menu.

Copy files to the standby media server

Copy the license, Avaya Authentication, and pre- and post-upgrade service pack files from the computer to the media server.

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under Miscellaneous, select Download Files.
2. Select File(s) to download from the machine I’m using to connect to the server.
3. Click Browse next to the top field to open the Choose File window on your computer. Find the files that you need to copy to the media server.
4. Click Download to copy the file(s) to the media server.
   The files are automatically copied to the default file location.

Back up recovery system files on the standby media server

The following steps back up the system configuration files to the standby media server.

1. Under Data Backup/Restore, select Backup Now.
2. Select the data sets, including Avaya Call Processing (ACP) translations, and the backup method.
   
   Do not select Full Backup or Save ACP translations prior to backup as translations cannot be saved on a standby media server.
3. Click Start Backup to begin the back up process. Wait until the backup completes.
Verify the backup on the standby media server

The following steps check that the backup was successful.

1. Under Data Backup/Restore, select Backup History.
2. Select the backup you want to check, and click Check Status.

   The status of the backup appears.

   Check that Backup Successful appears for every data set in the backup.

Suppress alarming on standby media server

CAUTION:

If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft or dadmin.
4. Type almsuppress -t time and press Enter to suppress both dial-out and SNMP alarms. The variable time is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

   You see the following message

   Alarm is suppressed. 120 minutes left.
5. Logoff and close the dialog box.

Upgrade tasks (first media server)

Busy out the standby media server

The following steps busy out the media server.

1. On the Maintenance Web page, under Server, select Busy-Out Server. Then click Busy Out to busy out the standby server.
2. Click Status Summary to verify that the standby server is busied out.
Check the software release on the standby media server

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See Pre-upgrade service pack on page 156

Under Server click Software Version to see what software release is on the media server.

Activate the pre-upgrade service pack on the standby media server

Note:
Verify that the media server is busied out before installing the service pack.

Note:
Use a telnet session to install and activate the service pack file.

The following steps activate the service pack.

1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as either craft or dadmin.
4. Type update_unpack and press Enter.
5. Select the number corresponding to the service pack file. (For example, 00.0.339.4-xxxx.tar.gz). Press Enter.
6. Type update_show and press Enter to list Communication Manager files to verify that the new service pack file was unpacked.
7. Type update_activate update, where update is the release or issue number of the latest service pack file. (For example, 00.0.339.4-xxxx. Do not use the .tar.gz extension at the end of the file name). Press Enter.

The media server may reboot. If it reboots, it also may display the message

/opt/ecs/sbin/drestart 2 4 command failed.

Ignore this message. You must wait until the restart/reset completes before entering additional commands.

The media server displays a message that the service pack was applied.

8. Type update_show again and press Enter to list Communication Manager files to verify the service pack file was activated.
9. Enter y in response to the question, Commit this software?
Insert the Communication Manager CD in the standby media server

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.

Copy Communication Manager on the standby media server

The following steps copy Communication Manager to the media server.

1. On the browser toolbar, click **Refresh** to reload the current page.
2. Under **Server Upgrades**, select **Manage Software**.

   ![Manage Software](image)

   **Important:**
   If three releases are already resident on the hard drive, you must delete one of them to make room for the new release.

3. If three releases are resident on the hard drive
   a. Select **Delete one of the above releases from the local hard drive** and click **Continue** to view the list of releases on the hard drive.
   b. Select the software release you want to delete and click **Delete**. When completed the following message displays:

      **Deletion Complete**

   c. Click **Continue** to return to the initial Manage Software page.
Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web

4. If there are fewer than 3 releases on the hard drive
   a. Select *Copy a release to the local hard drive, but do not install it*, and click *Continue*
      to view the options for copying the software to the hard drive
   b. Select *Copy from this server’s CD-ROM drive*: and click *Continue*.
   c. View the progress screen as the software is copied to the hard drive. When completed
      the following message displays:
         **Copy Complete**
   d. Click *Continue* to return to the initial Manage Software page.

5. Close Window.

Install Communication Manager on the standby media server

The following steps install Communication Manager on the media server.

1. On the browser toolbar, click Refresh to reload the current page.
2. Under Server Upgrades, click *Manage Software*.
3. Select **Install one of the following releases currently resident on the local hard drive:** and click **Continue**.

4. On the **Choose License Source** screen, select **I will supply the license/authentication files myself when prompted later in this process.** If not installing new license and Avaya authentication files, select **I want to reuse the license/authentication files from the currently active partition on this server.**

5. Click **Continue** and continue through the Review Notices.

6. On the **Begin Installation** screen verify that the information is correct.

7. If correct, click **Continue** to install the software to the inactive partition. The software installation takes about 30 minutes.

8. View the progress on the screen. The screen will refresh automatically every few seconds. If you want it more frequently, click **Refresh** to instantly update the information on the screen.

⚠️ **CAUTION:**

DO NOT CLICK CANCEL past this point. Be patient. If the installation fails, a message appears on the **Install in Progress** screen.

---

### Reboot the standby media server

⚠️ **CAUTION:**

The CD tray opens automatically. Remove the CD from the CD-ROM drive *before* continuing.

**Note:**

When you reboot the media server, it can no longer communicate with the Web interface. The Reboot in Progress Web page remains on your screen until the reboot completes. Although the Continue button is visible, do not click it yet.

The following steps reboot the media server.

1. Remove the CD from the CD-ROM drive.
2. When prompted to reboot, click **Reboot**.

The media server reboots from the partition with the new software release. Allow 2–5 minutes for the reboot to complete. For more information refer to the online help.

**Note:**

The Web page does not show progress of the reboot process, so you will not know when the reboot is complete. If you want to check the progress, go to **Check reboot progress** on page 174.
3. If an error window pops up indicating that the media server cannot be contacted, click OK and wait a few more minutes.

4. When the media server completes the reboot, the error message is replaced with the Installation Complete page.

5. Click Continue to go to the next screen.

6. Click Close to close the Manage Software window.

7. Close the Web browser.

Check reboot progress

The following steps check the reboot process.

1. From the laptop Start menu, click Start > Run to open the Run dialog box.

2. Type command and press Enter to open an MS-DOS window.

3. Type arp -d 192.11.13.6 and press Enter to clear the ARP cache in the laptop. This command responds with one of the following:
   ● The command line prompt when the cache has been cleared.
   ● The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:
     The specified entry was not found.

4. Type ping -t 192.11.13.6 to access the media server. The -t causes the ping to repeat until you get a response. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.

5. Type ctrl c to stop the ping.

6. Close the MS-DOS window.

Relaunch Web browser on standby media server

You need to reopen your Web browser to access any new Web pages.

1. Launch the Web browser.

2. Type 192.11.13.6 in the Address field to open the logon page.

3. Log in as craft or dadmin.

4. Click Launch Maintenance Web Pages to get to the Main Menu.
Verify software operation

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade and before you release the standby media server from busy out.

1. Under Server click **Software Version**.
2. Look in the **Reports as:** field to verify that the new software is running correctly. If it is, go to the next step.
3. Click **Status Summary** to verify that the media server is working.
4. Click **Process Status**.
5. Select **Summary and Display once.** Click **Display** to access the View Process Status Results screen.
6. Verify that all the processes say **UP**.
7. Make sure you can log in using Telnet.
   a. From the laptop Start menu, click **Start > Run** to open the Run dialog box.
   b. Type `command` and press **Enter** to open an MS-DOS window.
   c. Type `arp -d 192.11.13.6` and press **Enter** to clear the ARP cache in the laptop. This command will respond with one of the following:
      - The command line prompt when the cache has been cleared.
      - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

         **The specified entry was not found.**

   d. Type `telnet 192.11.13.6` to access the media server and verify that you can log in.

   If you do not get a login prompt, then follow the normal escalation procedure.

Make upgrade permanent on standby media server

⚠️ **CAUTION:**

If you do not commit the new software release (make it permanent), then the next time the media server reboots, it will come up running the previous version of software. Any new translations you may have made to the new release are lost, and the new software will have to be installed again. Commit the new software to operation as soon as you verify that you can log into the media server. If you do not make the upgrade permanent within 2 hours of the upgrade, an alarm is raised.
Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web

The following steps make the upgrade permanent.

1. Under Server Upgrades, click **Make Upgrade Permanent**.
2. Click **Enter** to make the partition with the new software version the permanent partition.
3. Under Server Upgrades, click **Boot Partition** to confirm that the software is selected for the boot partition and the active partition.

**Install post-upgrade service pack (if any) on standby media server**

**Note:**

Skip this procedure if there is no Communication Manager service pack file to install.

This service pack may or may not be call preserving.

Use a telnet session to install the service pack file.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft**.
4. Type `cd /var/home/ftp/pub` and press **Enter** to access the pub directory.
5. At the prompt, type `ls -ltr` and press **Enter** to list files in the pub directory.
   
   The media server displays a list of files in the FTP directory. Verify that the directory contains the Communication Manager .tar.gz file you have uploaded, if any.

6. Type `update_unpack update.tar.gz`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press **Enter**.
7. Type `update_show` and press **Enter** to list Communication Manager files to verify the new service pack file was unpacked.
8. Type `update_activate update`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`. Do not use the .tar.gz extension at the end of the file name). Press **Enter**.
   
   The media server may reboot (reset system 4). If it reboots, it also may display the message `/opt/ecs/sbin/drestart 2 4 command failed`.

   Ignore this message. You must wait until the restart/reset completes before entering additional commands.

   The media server displays a message that the service pack was applied.

9. Type `update_show` again and press **Enter** to list Communication Manager files to verify the new service pack file was activated.
Upgrade tasks

Release the standby media server

The following steps release the media server from busyout mode.

1. Under Server click Release Server to release the standby server from busyout mode.
2. Click Status Summary to verify that the standby server is no longer busied out.

Interchange the media servers

The following steps interchange the active and standby media servers.

Note:
This is a non–call-preserving action. The Communication Manager reset is equivalent to a reset system 4.

2. Select Force interchange regardless of server status.
3. Click Interchange to make the newly upgraded standby server the new active server.
4. Click Status Summary to verify that the media server you are connected to is the active server.

Note:
Because the media servers are on different software loads, Standby Refreshed is no and Standby Shadowing is off.

Install the new license and Avaya authentication files on newly active media server

Note:
The license file must be installed on an active media server and before installing the Avaya authentication file.

For a major upgrade of Communication Manager, you need to load an updated license file.

Note:
At this time the media servers are on different releases of Communication Manager. Installing the license file reports an error.

1. Under Security click License File, select Install the license I previously downloaded, then click Submit to install the license file.
   The system tells you the license is installed successfully.
2. Under Security click Avaya Authentication, then click Install
   The system tells you the authentication is installed successfully.
Disconnect from the newly active media server

If on site, unplug the laptop from the services port on the back of the newly active media server.

---

Upgrade tasks (second media server)

Connect to the standby media server (second server)

If on site, connect to the services port (2) on the back of the standby media server.
If off site, log onto the standby media server using the actual IP address of the media server.

Access the Maintenance Web Interface on the standby media server (second server)

The following steps allow you to access the Maintenance Web Interface.

**Note:**
Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.

1. Launch the Web browser.
2. Type **192.11.13.6** in the Address field to open the logon page.
3. Log on as **craft** or **dadmin**. Or, if you are a customer, log in with a customer super user login.
4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

Busy out the standby media server (second server)

The following steps busy out the media server.

1. Under Server, select **Busy-Out Server**. Then click **Busy Out** to busy out the standby server.
2. Click **Status Summary** to verify that the standby server is busied out.

Check the software release on the standby media server (second server)

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See **Pre-upgrade service pack** on page 156.
Under Server click **Software Version** to see what software release is on the media server.
Activate the pre-upgrade service pack on the standby media server (second server)

**Note:**
Use a telnet session to install and activate the service pack file.

The following steps activate the service pack:

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as either **craft** or **dadmin**.
4. Type `update_unpack` and press **Enter**.
5. Select the number corresponding to the service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press **Enter**.
6. Type `update_show` and press **Enter** to list Communication Manager files to verify that the new service pack file was unpacked.
7. Type `updateActivate update`, where `update` is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`. Do *not* use the `.tar.gz` extension at the end of the file name). Press **Enter**.

The media server may reboot. If it reboots, it also may display the message

```
/opt/ecs/sbin/drestart 2 4 command failed.
```

Ignore this message. You must wait until the restart/reset completes before entering additional commands.

The media server displays a message that the service pack was applied.

8. Type `update_show` again and press **Enter** to list Communication Manager files to verify the service pack file was activated.
9. Enter `y` in response to the question, **Commit this software?**

Insert the software CD in the standby media server (second server)

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.
Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web

Copy Communication Manager to the standby media server (second server)

The following steps copy Communication Manager to the media server.

1. On the browser toolbar, click Refresh to reload the current page.
2. Under Server Upgrades, select Manage Software.

![Manage Software](image)

⚠ Important:
If three releases are already resident on the hard drive, you must delete one of them to make room for the new release.

3. If three releases are resident on the hard drive
   a. Select Delete one of the above releases from the local hard drive and click Continue to view the list of releases on the hard drive.
   b. Select the software release you want to delete and click Delete. When completed the following message displays:

   Deletion Complete
   c. Click Continue to return to the initial Manage Software page.

4. If there are fewer than 3 releases on the hard drive
   a. Select Copy a release to the local hard drive, but do not install it, and click Continue to view the options for copying the software to the hard drive
Upgrade tasks

b. Select **Copy from this server’s CD-ROM drive**: and click **Continue**.

c. View the progress screen as the software is copied to the hard drive. When completed the following message displays:

   **Copy Complete**

d. Click **Continue** to return to the initial Manage Software page.

5. Close Window.

Install Communication Manager on the standby media server (second server)

The following steps install Communication Manager on the media server.

1. On the browser toolbar, click **Refresh** to reload the current page.

2. Under Server Upgrades, click **Manage Software**.

3. Select **Install one of the following releases currently resident on the local hard drive**: and click **Continue**.
4. On the **Choose License Source** screen, select **I will supply the license/authentication files myself when prompted later in this process.**

   If not installing new license and Avaya authentication files, select **I want to reuse the license/authentication files from the currently active partition on this server.**

5. Click **Continue** and continue through the Review Notices.

6. On the **Begin Installation** screen verify that the information is correct.

7. If correct, click **Continue** to install the software to the inactive partition. The software installation takes about 30 minutes.

8. View the progress on the screen. The screen will refresh automatically every few seconds. If you want it more frequently, click **Refresh** to instantly update the information on the screen.

   **CAUTION:**
   DO NOT CLICK CANCEL past this point. Be patient. If the installation fails, a message appears on the **Install in Progress** screen.

---

**Reboot the standby media server (second server)**

   **CAUTION:**
   The CD tray opens automatically. Remove the CD from the CD-ROM drive *before* continuing.

   **Note:**
   When you reboot the media server, it can no longer communicate with the Web interface. The Reboot in Progress Web page remains on your screen until the reboot completes. Although the Continue button is visible, do not click it yet.

The following steps reboot the media server.

1. Remove the CD from the CD-ROM drive.

2. When prompted to reboot, click **Reboot**.

   The media server reboots from the partition with the new software release. Allow 2–5 minutes for the reboot to complete. For more information refer to the online help.

   **Note:**
   The Web page does not show progress of the reboot process, so you will not know when the reboot is complete. If you want to check the progress, go to **Check reboot progress (second server)** on page 183.

3. If an error window pops up indicating that the media server cannot be contacted, click **OK** and wait a few more minutes.
4. When the media server completes the reboot, the error message is replaced with the Installation Complete page.
5. Click Continue to go to the next screen.
6. Click Close to close the Manage Software window.
7. Close the Web browser.

Check reboot progress (second server)

The following steps check the reboot process.
1. From the laptop Start menu, click Start > Run to open the Run dialog box.
2. Type command and press Enter to open an MS-DOS window.
3. Type arp -d 192.11.13.6 and press Enter to clear the ARP cache in the laptop. This command responds with one of the following:
   ● The command line prompt when the cache has been cleared.
   ● The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:
     The specified entry was not found.
4. Type ping -t 192.11.13.6 to access the media server. The -t causes the ping to repeat until you get a response. When you get a response (in about 3 minutes), wait an additional 30 seconds before going back to the Web interface.
5. Type ctrl c to stop the ping.
6. Close the MS-DOS window.

Relaunch Web browser on standby media server (second server)

You need to reopen your Web browser to access any new Web pages.
1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field to open the logon page.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages to get to the Main Menu.

Verify software operation (second server)

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade and before you release the standby media server from busy out.
2. Look in the Reports as: field to verify that the new software is running correctly. If it is, go to the next step.

3. Click Status Summary to verify that the media server is working.

4. Click Process Status.

5. Select Summary and Display once. Click Display to access the View Process Status Results screen.

6. Verify that all the processes say UP.

7. Make sure you can log in using Telnet.
   a. From the laptop Start menu, click Start > Run to open the Run dialog box.
   b. Type command and press Enter to open an MS-DOS window.
   c. Type arp -d 192.11.13.6 and press Enter to clear the ARP cache in the laptop. This command will respond with one of the following:
      - The command line prompt when the cache has been cleared.
      - The following phrase is returned when the specified IP address does not currently contain an entry in the ARP cache:

         The specified entry was not found.
   d. Type telnet 192.11.13.6 to access the media server and verify that you can log in.

      If you do not get a login prompt, then follow the normal escalation procedure.

Make upgrade permanent on standby media server (second server)

⚠️ CAUTION:
If you do not commit the new software release (make it permanent), then the next time the media server reboots, it will come up running the previous version of software. Any new translations you may have made to the new release are lost, and the new software will have to be installed again. Commit the new software to operation as soon as you verify that you can log into the media server. If you do not make the upgrade permanent within 2 hours of the upgrade, an alarm is raised.

The following steps make the upgrade permanent.

1. Under Server Upgrades, click Make Upgrade Permanent.
2. Click Enter to make the partition with the new software version the permanent partition.
3. Under Server Upgrades, click Boot Partition to confirm that the software is selected for the boot partition and the active partition.
Install post-upgrade service pack (if any) on standby media server (second server)

Note:
Skip this procedure if there is no Communication Manager service pack file to install.

This service pack may or may not be call preserving.

Use a telnet session to install the service pack file.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft**.
4. Type `cd /var/home/ftp/pub` and press **Enter** to access the pub directory.
5. At the prompt, type `ls -ltr` and press **Enter** to list files in the pub directory.

The media server displays a list of files in the FTP directory. Verify that the directory contains the Communication Manager .tar.gz file you have uploaded, if any.

6. Type `update_unpack update.tar.gz`, where **update** is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx.tar.gz`). Press **Enter**.
7. Type `update_show` and press **Enter** to list Communication Manager files to verify the new service pack file was unpacked.
8. Type `update_activate update`, where **update** is the release or issue number of the latest service pack file. (For example, `00.0.339.4-xxxx`. Do not use the .tar.gz extension at the end of the file name). Press **Enter**.

The media server may reboot (reset system 4). If it reboots, it also may display the message `/opt/ecs/sbin/drestart 2 4 command failed`.

Ignore this message. You must wait until the restart/reset completes before entering additional commands.

The media server displays a message that the service pack was applied.

9. Type `update_show` again and press **Enter** to list Communication Manager files to verify the new service pack file was activated.

Release the standby media server (second server)

The following steps release the media server from busyout mode.

1. Under Server click **Release Server** to release the standby server from busyout mode.
2. Click **Status Summary** to verify that the standby server is no longer busied out.
Disconnect from the standby media server (second server)

If on site, unplug the laptop from the services port on the back of the standby media server.

Connect to the active media server

If on site, connect to the services port on the back of the active media server.
If off site, log onto the standby media server using the actual IP address of the media server.

Verify operation of media servers

The following step verifies the operation of the media servers.

1. Click View Summary Status to verify that the following items are working:
   - Duplicated? yes
   - Standby Busied? no
   - Standby Refreshed? yes
   - Standby Shadowing: on
   - Duplication Link: up

Post-Upgrade tasks

Note:

Tasks Enable scheduled maintenance using SAT on page 186 through Check for translation corruption using SAT on page 187 use SAT commands and can only be done on the active media server.

Enable scheduled maintenance using SAT

The following steps enable scheduled maintenance.

1. Type change system-parameters maintenance and press Enter.
2. Ensure that the Start Time and Stop Time fields’ administration is the same as before the upgrade.

Release MMI circuit packs using SAT (duplicated control network only)

Type release board UUCSS and press Enter to release the circuit packs that you busied out in the Busyout MMI circuit packs using SAT (duplicated control network only) on page 164 section.
Busy out previously busied-out trunks using SAT

Busy out trunks that were busied out before the upgrade (see Record all busyouts using SAT on page 163).

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press `Enter`.
2. If you see the following message:
   
   **Warning: Translation corruption detected**
   
   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Resolve alarms

Use the Maintenance Web Interface.

1. Under Alarms click **Current Alarms** to examine the alarm log.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve new alarms since the upgrade using SAT commands and the Maintenance Commands Reference and Alarms Maintenance books.

Back up files from the active media server

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets and the backup method.
3. Select **Avaya Call Processing (ACP) translations**.
4. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Release alarm suppression (optional)

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. Click **Start > Run** to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press `Enter`. 
3. Log in as craft or dadmin.
4. Type `almsuppress -n` and press Enter to release alarm suppression.
5. Log off.

**Log off the administration applications on the active media server**

When you have completed all the administration, log off all the applications used.

**Disconnect from the active media server**

If on site, unplug the laptop from the services port on the back of the active media server.

**Connect to the standby media server**

If on site, connect to the services port on the back of the standby media server.
If off site, log onto the standby media server using the actual IP address of the media server.

**Back up files from standby media server**

The following steps back up the system configuration files to the standby media server.

1. Under *Data Backup/Restore*, select *Backup Now*.
2. Select the data sets, including *Avaya Call Processing (ACP) translations*, and the backup method.

   Do *not* select *Full Backup* or *Save ACP translations prior to backup* as translations cannot be saved on a standby media server.

3. Click *Start Backup* to begin the back up process. Wait until the backup completes.

**Release alarm suppression on the standby media server**

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. Click *Start > Run* to open the Run dialog box
2. Type `telnet 192.11.13.6` and press Enter.
3. Log in as craft.
4. Type `almsuppress -n` and press Enter to release alarm suppression.
5. Log off.
Start call processing on the LSPs (if being used; optional)

If the S8700 series media server is the primary controller for a G350 or G700 Media Gateway equipped with a local survivable processor (LSP) and you shut down the media server before you upgraded the software, you must restart call processing on the LSP.

⚠️ Important:
You must be connected to the LSP on which you are upgrading the software.

The following administration is done when connected to the primary controller (media server) using telnet.

1. From the Start menu on the laptop, click Start > Run to open the Run dialog box
2. Type command or cmd to open an MS-DOS window.
3. Type telnet 192.11.13.6 to access the S8700.
4. Type telnet IPaddress, where IPaddress is the IP address of the S8300.
5. Log in as craft or dadmin.
6. At the prompt type start -afcn and press Enter to restart call processing on the LSP.
7. Repeat for each LSP.

Refer to Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server (555-234-100) for more complete information.

Log off the administration applications on the standby media server

When you have completed all the administration, log off all the applications used.

Register Avaya Communication Manager

Follow standard procedures for registering the new software.
Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool

This procedure is for upgrading Avaya Communication Manager on an existing, registered Avaya S8700 or S8710 Media Server running Release 2.x of Avaya Communication Manager. This method uses the Upgrade Tool available with Release 2.1 and later. If you prefer to upgrade Communication Manager using the Maintenance Web Interface, see Upgrading Communication Manager on Avaya S8700 Series Media Servers Using Maintenance Web Interface.

⚠️ Important:
Upgrading from Release 2.x to Release 3.0 requires installing a pre-upgrade service pack (software update) before upgrading Communication Manager. This service pack supports the upgrade to Release 3.0. See Pre-upgrade service pack on page 194 for information on which service pack to use.

Upgrading from Release 2.x to Release 3.0 requires an updated license file. For information on generating a license file, see License and Avaya authentication files on page 49 in Upgrading Software on Media Servers on page 45.

⚠️ Important:
If you have a Survivable Remote EPN or Manual Backup Servers (MBS), you can no longer use them as they cannot be upgraded to Release 3.0. You can migrate the MBSs to Enterprise Survivable Servers (ESSs); see Avaya Enterprise Survivable Servers (ESS) User Guide (03-300428) for information.

⚠️ Important:
The Upgrade Tool cannot be used to upgrade the G150 Media Gateway (available with Release 2.2) if being used. You must upgrade it separately. See Installation and Configuration for the Avaya G150 Media Gateway (03-300395) for complete information.
Upgrade Tool use

Note:
See Job Aid: Upgrade Tool and Worksheets (555-245-757) and the online Help for information on using the Upgrade Tool.

The Upgrade Tool allows you to automatically and remotely upgrade the following from the primary controller:

- Communication Manager on the Local Survivable Processors (LSPs). You can also use the tool to apply post-upgrade service packs (software updates) to the LSPs.
- Firmware on the G350 or G700 Media Gateways and most of the media modules that are resident in the media gateways.
- Communication Manager and post-upgrade service packs on the primary controller if R2.1 or later.

With the Upgrade Tool, you do not have to physically be at the LSP and media gateway locations to perform the upgrades. Additionally, you do not have to run the upgrades one by one. You can enter the needed information for all LSPs and gateways into the Upgrade Tool, then run the Upgrade Tool. The tool automatically upgrades Communication Manager and firmware on all LSPs and G350 or G700 gateways, respectively.

Note:
LSPs must be upgraded to the latest release of Avaya Communication Manager before you upgrade the primary controller to the latest release. To use the Upgrade Tool, the LSPs and the primary controller must be on Release 2.1 or later of Avaya Communication Manager.

Upgrade using the Upgrade Tool

To upgrade an LSP or gateway using the Upgrade Tool, the LSP or media gateway must already be administered and registered with the primary controller. To check, use the Query Versions option on the Upgrade Tool navigation pane (on the left side of the Upgrade Tool screens). The Query Versions screen will show an IP address next to each registered LSP and gateway.

The Upgrade Tool upgrades components of a configuration in the following order:

- All LSPs you specify
- The media gateways and their media modules
- The primary controller
  - standby media server from the active media server
  - newly standby media server, after interchange, from the newly standby media server.

See Upgrade process when upgrading active and standby media servers on page 193.
Run the Upgrade Tool from the active media server. The Upgrade Tool then upgrades each target LSP and media gateways you selected and the standby media server. When these upgrades are complete and the standby media server has rebooted, an interchange occurs automatically. The standby media server then becomes active, and the active media server becomes the standby. The Upgrade Tool then continues running on the media server it had been running on before the interchange and upgrades itself.

The newly active media server remains active when the upgrades are complete. For the upgrades that you started before the interchange, there is no status data on the media server that is active after the interchange. The upgrade status data is available only on the media server (now the standby media server) on which the upgrade was started.

To view the current upgrade status after an interchange, log into the actual IP address or host name of the media server that you used to do the upgrade, not the alias address or alias name for the active media server. When scheduling further upgrade jobs, you must log into the newly active media server to run the Upgrade Tool.

⚠️ CAUTION:
After an interchange, do not start another upgrade on the newly active server until the current upgrade has finished. You must use the Upgrade Tool’s View Prior menu option from the server on which you started the upgrade to see when the upgrade is complete.
Prerequisites

You must complete several tasks before going on site and beginning the upgrade. For pre-site tasks, see Pre-site checklist on page 47 in Chapter 2: Upgrading Software on Media Servers on page 45.

TN2312AP/BP IPSI circuit pack upgrades

The TN2312AP/BP IPSI circuit packs must have the current firmware load before upgrading Communication Manager on the media server. Upgrade the IPSI firmware first. Go to Upgrading firmware on the IPSIs on page 219 for firmware upgrade procedures.

Pre-upgrade service pack

This upgrade requires a pre-upgrade service pack. The service pack filename differs, depending on which software load the media server is on. See Software release and load for the software load associated with each release.

⚠️ CAUTION:

If the customer’s system has Release 2.x of Communication Manager but has a field load other than those listed in the table, do not use this section to upgrade Communication Manager to Release 3.0. You must escalate.

Table 7: Software release and load

<table>
<thead>
<tr>
<th>Software release of existing media server</th>
<th>Associated software load</th>
<th>Service pack filename</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 2.0</td>
<td>R012x.00.0.219.0</td>
<td>00.0.219.0-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.0.1</td>
<td>R012x.00.1.221.1</td>
<td>00.1.221.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1</td>
<td>R012x.01.0.411.7</td>
<td>01.0.411.7-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.1.1</td>
<td>R012x.01.1.414.1</td>
<td>01.1.414.1-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2</td>
<td>R012x.02.0.111.4</td>
<td>02.0.111.4-xxxx.tar.gz</td>
</tr>
<tr>
<td>Release 2.2.1</td>
<td>R012x.02.0.xxx.x</td>
<td>02.0.xxx.x-xxxx.tar.gz</td>
</tr>
</tbody>
</table>
Overview of upgrade sequence

The Upgrade Tool cannot be used to install the pre-upgrade service pack. Also, because the Upgrade Tool also cannot be used to upgrade the G150 Media Gateways, you must upgrade them separately.

The high level sequence is

1. Obtain the updated license files and pre- and post-upgrade service packs for all LSPs (if being used) and the primary controller. Also, obtain firmware files for all G350 and G700 Media Gateways (if being used).

2. Prepare the LSPs (if being used) for the upgrade
   - Distribute Communication Manager software to the site of each LSP (if being used). This can be either CDs that are mailed or copied to the media server through TFTP or HTTP.
   - Using the Maintenance Web Interface pages, copy the pre-upgrade service pack and post-upgrade service pack from an FTP server or another means of transport onto each LSP (if being used).
   - Install and activate the pre-upgrade service pack on the LSPs (if being used).
   - Copy the new Communication Manager software to all the LSPs using the Manage Software Web page. This may be done remotely for each LSP if someone at each location can insert the software CD for you.

3. Using the Maintenance Web Interface pages, copy the pre-upgrade service pack and post-upgrade service pack from an FTP server or another means of transport onto the primary controller (each S8700).

4. Install and activate the pre-upgrade service pack on the primary controller (each S8700).

5. Copy the new Communication Manager software to the primary controller (each S8700) using the Manage Software Web page.

6. Launch the Upgrade Tool to upgrade
   - Communication Manager and post-upgrade service pack on the S8300 Media Server, if using LSPs
   - The firmware on the G350 and G700 media gateways and media modules
   - Communication Manager and post-upgrade service pack on the primary controller.

7. If installed, upgrade the G150 Media Gateway; you cannot use the Upgrade Tool.

For detailed information on upgrading LSPs, see Chapter 6: "Upgrading an existing S8300B to R3.0" in Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100.
Upgrade tasks

Pre-upgrade tasks

- Connect to the active media server on page 197

Current configuration tasks:

- Start a SAT session on the active media server on page 198
- Check link status using SAT (optional) on page 198
- Record all busyouts using SAT on page 198
- Check clock synchronization using SAT on page 198
- Disable scheduled maintenance using SAT on page 199
- Busyout MMI circuit packs using SAT (duplicated control network only) on page 199
- Check for translation corruption using SAT on page 199
- Access the Maintenance Web Interface on active media server on page 200
- Clear alarms on page 200
- Back up recovery system files on the active server on page 201
- Verify the backup on the active media server on page 201
- Suppress alarming on page 201
- Disconnect from the active media server on page 202
- Connect to the standby media server on page 202
- Access the Maintenance Web Interface on the standby media server on page 202
- Back up recovery system files on the standby media server on page 202
- Copy files to the standby media server on page 203
- Check the software release on the standby media server on page 203
- Activate the pre-upgrade service pack on the standby media server on page 204
- Insert the software CD in the standby media server on page 204
- Copy Communication Manager to the standby media server on page 205
- Remove CD from CD drive of standby media server on page 206
- Disconnect from the standby media server on page 207
- Connect to the active media server on page 207
- Re-access the Maintenance Web Interface on the active media server on page 207
- Copy files to the active media server on page 207
Upgrade tasks

- Check the software release on the active media server on page 208
- Activate the pre-upgrade service pack on the active media server on page 208
- Insert the software CD in the active media server on page 208
- Copy Communication Manager to the active media server on page 209
- Remove CD from CD drive of active media server on page 210

Upgrade tasks:

- Launch the Upgrade Tool on page 210
- Install Avaya authentication files on the active server on page 212
- Verify software operation on page 212

Post-Upgrade tasks:

- Verify operation of media servers on page 213
- Enable scheduled maintenance using SAT on page 213
- Release MMI (duplicated control network only) using SAT on page 214
- Busy out previously busied-out trunks using SAT on page 214
- Check for translation corruption using SAT on page 214
- Resolve alarms on page 214
- Back up files from the active media server on page 214
- Release alarm suppression on the active media server (optional) on page 215
- Log off the administration applications on the active media server on page 215
- Disconnect from the active media server on page 215
- Connect to the standby media server on page 215
- Back up files from standby media server on page 215
- Release alarm suppression on the standby media server on page 216
- Log off the administration applications on the standby media server on page 216
- Register Avaya Communication Manager on page 216

Current configuration tasks:

Connect to the active media server

If on site, connect to the services port on the back of the active media server.

If off site, log onto the active media server using the actual IP address of the media server.
Start a SAT session on the active media server

The following steps start a SAT session.
1. Open a terminal emulation application, such as MS HyperTerminal.
2. Type 192.11.13.6 5023 and press Enter.
3. Log on as craft or dadmin.

Check link status using SAT (optional)

The following steps check the status of various links.

Note: Because some links may be down by choice, make note of them before the upgrade.

1. Type display communication-interface links and press Enter.
2. Note all administered links.
3. Type status link number and press Enter for each administered link.
4. Check the following fields for the values listed:
   - Link Status = connected
   - Service State = in service
5. Type list signaling group and press Enter.
6. Note the signaling groups listed by number.
7. For each of the signaling groups listed, type status signaling group number and press Enter.
8. If any of the links are not up, make note of any that are down.

Record all busyouts using SAT

Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the upgrade.

Check clock synchronization using SAT

Type status sync and press Enter to verify that the clock synchronization is good. Make note of outages.
Disable scheduled maintenance using SAT

The following steps prevent scheduled daily maintenance from interfering with the upgrade.

1. To prevent scheduled daily maintenance from interfering with the update or upgrade, type `change system-parameters maintenance` and press Enter.

2. If scheduled maintenance is in progress, set the Stop Time field to 1 minute after the current time.

   or

   If scheduled maintenance is not in progress, set the Start Time field to a time after the upgrade will be completed.

   For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 4 hours, set the Start Time field to 23:59.

Busyout MMI circuit packs using SAT (duplicated control network only)

The following steps locate all the MMI circuit packs that need to be busied out.

⚠️ CAUTION:
Multimedia-to-voice station calls are not preserved on an upgrade. Failure to busy-out the TN787 Multimedia Interface (MMI) circuit packs results in unusable TN787 and TN787 Multimedia Voice Conditioner ports.

1. Type `display system-parameters customer-options` and press Enter. On screen 2 or 3 under the Multimedia Call Handling (MMCH) options, check the Basic and Enhanced fields.

2. If either the Basic or Enhanced field is y, type `list configuration all` and press Enter to locate all MMI (TN787) circuit packs.

3. If there are MMI circuit packs, type `busyout board UUCSS` for each MMI circuit pack.

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press Enter.

2. If you see the following message:

   Warning: Translation corruption detected

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.
Access the Maintenance Web Interface on active media server

The following steps allow you to access the Maintenance Web Interface.

Note:
Because the design and organization of the Maintenance Web Interface changes with subsequent releases, your Web pages may not look the same as those shown.

1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field to open the logon page.
3. Log on as craft or dadmin. Or, if you are a customer, log in with a customer super user login.

4. Click Launch Maintenance Web Interface to get to the Main Menu.

Clear alarms

The following steps clear alarms.

2. Select the server alarms to be cleared and click Clear.
3. Resolve any major alarms using SAT commands on a terminal emulation application.
Upgrade tasks

Back up recovery system files on the active server

It is good practice to back up all the system configuration files in case there is a need to back out of the upgrade.

**Note:**
You can only save translations on the active media server.

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets and the backup method.
3. Select the data sets, including **Avaya Call Processing (ACP) translations** and **Save ACP translations prior to backup**, and the backup method. Do *not* select **Full Backup** because this option does not save translations.
   
   **Note:**
   If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade, migration, or conversion procedure.

4. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Verify the backup on the active media server

The following steps check that the backup was successful.

1. Under **Data Backup/Restore**, select **Backup History**.
2. Select the backup you want to check, and click Check Status.
   
   The status of the backup appears.
   
   Check that **Backup Successful** appears for every data set in the backup.

Suppress alarming

**CAUTION:**
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as craft or dadmin.

4. Type `almsuppress -t time` and press Enter to suppress both dial-out and SNMP alarms. The variable `time` is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

    You see the following message

    **Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.

---

**Disconnect from the active media server**

Disconnect the laptop from the services port on the back of the active media server.

**Connect to the standby media server**

If on site, connect to the services port on the back of the *active* media server.

If off site, log onto the active media server using the actual IP address of the media server.

**Access the Maintenance Web Interface on the standby media server**

The following steps allow you to access the Maintenance Web Interface.

1. Launch the Web browser.

2. Type `192.11.13.6` in the Address field to open the logon page.

3. Log on as craft or dadmin. Or, if you are a customer, log in with a customer super user login.

4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

**Back up recovery system files on the standby media server**

The following steps back up the system configuration files to the standby media server.

1. Under **Data Backup/Restore**, select **Backup Now**.

2. Select the data sets, including **Avaya Call Processing (ACP) translations**, and the backup method.

    Do not select **Full Backup** or **Save ACP translations prior to backup** as translations cannot be saved on a standby media server.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.
Verify the backup on the standby media server

The following steps check that the backup was successful.

1. Under **Data Backup/Restore**, select **Backup History**.
2. Select the backup you want to check, and click Check Status.
   
   The status of the backup appears.
   
   Check that **Backup Successful** appears for every data set in the backup.

Copy files to the standby media server

Use the following steps to copy the pre-upgrade and post-upgrade service packs and the license files for all LSPs and the primary controller. The files should be located as follows:

- On your laptop, if connected directly to the server,
- On the computer you are using, if connected remotely
- On another computer or server within the customer’s network

⚠️ **CAUTION:**
Do not transfer files across the duplication link to the other media server. You must connect to the media server that you are uploading the files to.

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I'm using to connect to the server**.
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.
4. Click **Download** to copy the file(s) to the media server.
   
   The files are automatically copied to the default file location.

Check the software release on the standby media server

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See **Pre-upgrade service pack** on page 194.

Under Server click **Software Version** to see what software release is on the media server.
Activate the pre-upgrade service pack on the standby media server

**Note:**
Use a telnet session to install and activate the service pack file.

The following steps activate the service pack.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type **telnet 192.11.13.6** and press **Enter**.
3. Log in as either **craft** or **dadmin**.
4. Type **update_unpack** and press **Enter**.
5. Select the number corresponding to the service pack file. (For example, 00.0.339.4-xxxx.tar.gz). Press **Enter**.
6. Type **update_show** and press **Enter** to list Communication Manager files to verify that the new service pack file was unpacked.
7. Type **update_activate update**, where **update** is the release or issue number of the latest service pack file. (For example, 00.0.339.4-xxxx. Do **not** use the .tar.gz extension at the end of the file name). Press **Enter**.
   
   The media server may reboot. If it reboots, it also may display the message

   `/opt/ecs/sbin/drestart 2 4 command failed.`

   Ignore this message. You must wait until the restart/reset completes before entering additional commands.

   The media server displays a message that the service pack was applied.

8. Type **update_show** again and press **Enter** to list Communication Manager files to verify the service pack file was activated.
9. Enter **y** in response to the question, **Commit this software?**

Insert the software CD in the standby media server

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.
Copy Communication Manager to the standby media server

The following steps copy Communication Manager to the media server.

1. On the browser toolbar, click Refresh to reload the current page.
2. Under Server Upgrades, select Manage Software.

![Manage Software](image)

**Important:**

If three releases are already resident on the hard drive, you must delete one of them to make room for the new release.

3. If three releases are resident on the hard drive
   a. Select Delete one of the above releases from the local hard drive and click Continue to view the list of releases on the hard drive.
   b. Select the software release you want to delete and click Delete. When completed the following message displays:

      **Deletion Complete**

   c. Click Continue to return to the initial Manage Software page.

4. If there are fewer than 3 releases on the hard drive
   a. Select Copy a release to the local hard drive, but do not install it, and click Continue to view the options for copying the software to the hard drive
Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool

b. Select **Copy from this server’s CD-ROM drive:** and click **Continue.**

c. View the progress screen as the software is copied to the hard drive. When completed the following message displays:

   **Copy Complete**

d. Click **Continue** to return to the initial Manage Software page.

5. Close Window.

Remove CD from CD drive of standby media server

The following steps release the CD tray so you can remove the CD.

1. Push button on the CD drive to release the CD tray.

   If it does not release, go to the Maintenance Web Interface main menu. Under Server Configuration click **Eject CD-ROM.**

2. Remove the Communication Manager CD from the tray and close the tray.

Suppress alarming

⚠️ **CAUTION:**

If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click **Start > Run** to open the **Run** dialog box.

2. Type **telnet 192.11.13.6** and press **Enter.**

3. Log in as **craft** or **dadmin.**

4. Type **almsuppress -t time** and press **Enter** to suppress both dial-out and SNMP alarms. The variable **time** is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

   You see the following message

   **Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.
**Disconnect from the standby media server**

Disconnect the laptop from the services port on the back of the standby media server.

**Connect to the active media server**

If on site, connect to the services port on the back of the active media server.

If off site, log onto the active media server using the actual IP address of the media server.

**Re-access the Maintenance Web Interface on the active media server**

The following steps allow you to access the Maintenance Web Interface.

1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field to open the logon page.
3. Log on as craft or dadmin. Or, if you are a customer, log in with a customer super user login.
4. Click **Launch Maintenance Web Interface** to get to the Main Menu.

**Copy files to the active media server**

Use the following steps to copy to the media server the pre- and post-upgrade service packs, firmware for TN circuit packs, and the license files for all LSPs and the primary controller. The files should be located on:

- Services laptop, if connected directly to the server,
- Computer you are using, if connected remotely
- Another computer or server within the customer’s network

⚠️ **CAUTION:**

Do not transfer files across the duplication link to the other media server. You must connect to the media server that you are uploading the files to.

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I'm using to connect to the server**.
3. Click **Browse** next to the top field to open the Choose File window on your computer. Find the files that you need to copy to the media server.
4. Click **Download** to copy the file(s) to the media server.
   
   The files are automatically copied to the default file location.
Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool

Check the software release on the active media server

Check the version of Communication Manager to make sure you install the correct pre-upgrade service pack. See Pre-upgrade service pack on page 194.

Under Server click Software Version to see what software release is on the media server.

Activate the pre-upgrade service pack on the active media server

Note:
Use a telnet session to install and activate the service pack file.

The following steps activate the service pack.

1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as either craft or dadmin.
4. Type update_unpack and press Enter.
5. Select the number corresponding to the service pack file. (For example, 00.0.339.4-xxxx.tar.gz). Press Enter.
6. Type update_show and press Enter to list Communication Manager files to verify that the new service pack file was unpacked.
7. Type update_activate update, where update is the release or issue number of the latest service pack file. (For example, 00.0.339.4-xxxx. Do not use the .tar.gz extension at the end of the file name). Press Enter.

The media server may reboot. If it reboots, it also may display the message

/opt/ecs/sbin/drestart 2 4 command failed.

Ignore this message. You must wait until the restart/reset completes before entering additional commands.

The media server displays a message that the service pack was applied.

8. Type update_show again and press Enter to list Communication Manager files to verify the service pack file was activated.
9. Enter y in response to the question, Commit this software?

Insert the software CD in the active media server

Insert the CD containing Communication Manager into the CD-ROM drive on the media server and close the tray.
Copy Communication Manager to the active media server

The following steps copy Communication Manager to the media server.

1. On the browser toolbar, click Refresh to reload the current page.
2. Under Server Upgrades, select Manage Software.

![Manage Software]

⚠️ Important:
If three releases are already resident on the hard drive, you must delete one of them to make room for the new release.

3. If three releases are resident on the hard drive
   a. Select Delete one of the above releases from the local hard drive and click Continue to view the list of releases on the hard drive.
   b. Select the software release you want to delete and click Delete. When completed the following message displays:

   Deletion Complete

   c. Click Continue to return to the initial Manage Software page.

4. If there are fewer than 3 releases on the hard drive
   a. Select Copy a release to the local hard drive, but do not install it, and click Continue to view the options for copying the software to the hard drive
b. Select Copy from this server’s CD-ROM drive: and click Continue.

c. View the progress screen as the software is copied to the hard drive. When completed the following message displays:

Copy Complete

d. Click Continue to return to the initial Manage Software page.

5. Close Window.

Remove CD from CD drive of active media server

The following steps release the CD tray so you can remove the CD.

1. Push button on the CD drive to release the CD tray.

   If it does not release, go to the Maintenance Web Interface main menu. Under Server Configuration click Eject CD-ROM.

2. Remove the Communication Manager CD from the tray and close the tray.

Upgrade tasks

Launch the Upgrade Tool

⚠ Important:

The Communication Manager, firmware, and license files must be resident on the LSPs.

Use the Upgrade Tool to upgrade LSPs (if being used), media gateways and modules, and the primary controller.
The following steps launch the Upgrade Tool.

1. On the Home page, click **Launch Upgrade Tool**.

2. Follow the procedures documented in the *Job Aid: Upgrade Tool and Worksheets*. 

---

**Note:**

See *Job Aid: Upgrade Tool and Worksheets, Issue 5* (555-245-757) and the online Help for information on using the Upgrade Tool.

The system displays the Upgrade Tool Home Page.
Upgrading Communication Manager on Avaya S8700 Series Media Server Using the Upgrade Tool

Note:
An interchange occurs during the upgrade. Thus, when the upgrade is complete, the active server from which you ran the Upgrade Tool will be the standby server.

Install Avaya authentication files on the active server

New authentication files are required when you are upgrading the software to a release with a new whole number (for example, from R2.2 to R3.0). The following steps install the security file.

2. Select Install the Authentication file I previously downloaded and click Install to install the Avaya authentication file.
   The system tells you the authentication is installed successfully.

Verify software operation

After installing the new software, verify that Communication Manager is behaving as expected and that no new problems are caused. These verification tests should be run after every software upgrade.

2. Look in the Reports as: field to verify that the new software is running correctly. If it is, go to the next step.
3. Click Status Summary to verify that the media server is working.
4. Click Process Status.
5. Select Summary and Display once. Click Display to access the View Process Status Results page.

![View Process Status Results]

<table>
<thead>
<tr>
<th>Service</th>
<th>Status/Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watchdog</td>
<td>19/13 UP</td>
</tr>
<tr>
<td>TraceLogger</td>
<td>4/4 UP</td>
</tr>
<tr>
<td>UOV</td>
<td>0/1 OFF</td>
</tr>
<tr>
<td>LicenseServer</td>
<td>3/3 UP</td>
</tr>
<tr>
<td>INASAlarmAgent</td>
<td>1/1 UP</td>
</tr>
<tr>
<td>G3AlarmAgent</td>
<td>1/1 UP</td>
</tr>
<tr>
<td>CCM</td>
<td>6/5 UP</td>
</tr>
<tr>
<td>SNMManager</td>
<td>1/1 UP</td>
</tr>
<tr>
<td>arbitter</td>
<td>9/3 UP</td>
</tr>
<tr>
<td>filesync</td>
<td>9/9 UP</td>
</tr>
<tr>
<td>dupsem</td>
<td>1/1 UP</td>
</tr>
<tr>
<td>MasterAgent</td>
<td>6/6 UP</td>
</tr>
<tr>
<td>MIGAgent</td>
<td>1/1 UP</td>
</tr>
<tr>
<td>SUBSubAgent</td>
<td>1/1 UP</td>
</tr>
<tr>
<td>SMT</td>
<td>9/9 UP</td>
</tr>
<tr>
<td>MultiVancage</td>
<td>80/90 UP</td>
</tr>
</tbody>
</table>

Help
6. Verify that all the processes are UP.

7. Make sure you can log in using Telnet.
   a. From the laptop Start menu, click **Start > Run** to open the Run dialog box.
   b. Type `command` and press **Enter** to open an MS-DOS window.
   c. Type `arp -d 192.11.13.6` and press **Enter** to clear the ARP cache in the laptop. This command will respond with one of the following:
      ● The command line prompt when the cache has been cleared.
      ● The phrase: The specified entry was not found. This is returned when the specified IP address does not currently contain an entry in the ARP cache.
   d. Type `telnet 192.11.13.6` to access the media server and verify that you can log in.

      If you do not get a login prompt, then follow the normal escalation procedure.

   **Note:**
   Do following step only when both media servers have the new software.

8. Make telephone test calls to verify that call processing is working.

   **Note:**
   Do not make test calls until both servers have been upgraded.

---

**Post-Upgrade tasks**

**Verify operation of media servers**

The following step verifies the operation of the media servers.

1. Click **View Summary Status** to verify that the following items are working:
   ● Duplicated? yes
   ● Standby Busied? no
   ● Standby Refreshed? yes
   ● Standby Shadowing: on
   ● Duplication Link: up

**Enable scheduled maintenance using SAT**

The following steps enable scheduled maintenance.

1. Type `change system-parameters maintenance` and press **Enter**.
2. Ensure that the **Start Time** and **Stop Time** fields’ administration is the same as before the upgrade.
Release MMI (duplicated control network only) using SAT

Type `release board UUCSS` and press Enter to release the circuit packs that you busied out in the Busyout MMI circuit packs using SAT (duplicated control network only) on page 199 section.

Busy out previously busied-out trunks using SAT

Busy out trunks that were busied out before the upgrade (see Record all busyouts using SAT on page 198).

Check for translation corruption using SAT

The following steps check for translation corruption.

1. Type `newterm` and press Enter.

2. If you do not get a login prompt and see the following message:
   
   **Warning: Translation corruption detected**

   follow the normal escalation procedure for translation corruption before continuing the upgrade.

Resolve alarms

Using the Maintenance Web Interface.

1. On the Maintenance Web Interface, under Alarms, select Current Alarms to examine the alarm log.

2. Select the server alarms to be cleared and click Clear.

3. Resolve new alarms since the upgrade using SAT commands and the Maintenance Commands Reference and Alarms Maintenance books.

Back up files from the active media server

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click Backup Now.

2. Select the data sets, including Avaya Call Processing (ACP) translations and Save ACP translations prior to backup, and the backup method. Do not select Full Backup because this option does not save translations.
Upgrade tasks

Note:
If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade procedure.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Release alarm suppression on the active media server (optional)

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. Click **Start > Run** to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as `craft` or `dadmin`.
4. Type `almsuppress -n` and press **Enter** to release alarm suppression.
5. Log off.

Log off the administration applications on the active media server

When you have completed all the administration, log off all the applications used.

Disconnect from the active media server

Disconnect the laptop from the services port on the back of the active media server.

Connect to the standby media server

If on site, connect to the services port on the back of the active media server.

If off site, log onto the active media server using the actual IP address of the media server.

Back up files from standby media server

The following steps back up the system configuration files to the standby media server.

1. Under **Data Backup/Restore**, select **Backup Now**.
2. Select the data sets, including **Avaya Call Processing (ACP) translations**, and the backup method.
   
   Do not select **Full Backup** or **Save ACP translations prior to backup** as translations cannot be saved on a standby media server.
3. Click **Start Backup** to begin the back up process. Wait until the backup completes.
Release alarm suppression on the standby media server

If you complete the upgrade well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. Click Start > Run to open the Run dialog box
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft.
4. Type almsuppress -n and press Enter to release alarm suppression.
5. Log off.

Log off the administration applications on the standby media server

When you have completed all the administration, log off all the applications used.

Register Avaya Communication Manager

Follow standard procedures for registering the new software.

Post-requisites

Upgrade the G150 Media Gateways (if being used)

Note: If the customer has no G150 Media Gateways, skip this task.

If the configuration is using G150 Media Gateways and WAN Expansion Interfaces and newer software exists for them, you must upgrade Communication Manager on them first. See Installation and Configuration for the Avaya G150 Media Gateway (03-300395) for complete information.
Chapter 3: Upgrading Firmware on TN circuit packs and Ethernet switches

Several pieces of equipment require firmware upgrades periodically. This equipment includes the IP Server Interface (TN2312AP/BP), programmable circuit packs (TN799DP, TN2302AP, TN2602AP), and Avaya Ethernet switches (C-363T, C-364T), if being used.

It is important that the programmable circuit packs be on the most current version, particularly the TN2312AP/BP IP Server Interface. Many features available with release 3.0 of Avaya Communication Manager that involve these circuit packs cannot be activated unless the circuit packs are on the most current version.

Firmware for these products are available from the Avaya Support Web site (http://avaya.com/support).

Prerequisites

You must complete several tasks before going on site and beginning the upgrade. For pre-site tasks, see Pre-site checklist on page 47 in Chapter 2: Upgrading Software on Media Servers on page 45.

Upgrade modules

The following modules are contained in this chapter:

- Upgrading firmware on the IPSIs on page 219
- Upgrading firmware on programmable TN circuit packs on page 229
- Upgrading firmware on the Avaya Ethernet Switch on page 231
Upgrading Firmware on TN circuit packs and Ethernet switches
Upgrading firmware on the IPSIs

On occasion new firmware becomes available for the Internet Protocol Server Interface (IPSI) circuit packs (TN2312AP/BP). The IPSIs must have the most current firmware before the upgrading the software on the Avaya media server.

Note:
You can download firmware for a TN2312BP to a TN2312AP IPSI circuit pack, though environmental maintenance is not available on the TN2312AP.

You can download firmware to one or more TN2312BP IPSI circuit pack from either the active or the standby media server because the process only requires IP connectivity to the IPSIs, which both media servers have.

After the firmware download completes and upon reset of the IPSI, the IPSI automatically activates the new firmware, regardless of how the IPSI reset was initiated (as a scheduled event, by demand, or spontaneously by system software). You can schedule the firmware activation using the Activate IPSI Upgrade screen, although the new firmware might activate earlier if the IPSI is reset for other reasons.

⚠️ CAUTION:
Make sure that you want to upgrade the IPSI firmware before you initiate the download. Once you have successfully downloaded the new firmware into an IPSI, you cannot cancel the upgrade.

Prerequisites

Before starting the upgrade procedure, you need several items.

Make sure you have the following:

● Superuser or services login and password

● A computer with the following items:
  - IP connectivity to the media server
  - IP connectivity to the World-Wide Web
  - MS Internet Explorer 5.5 or 6.0

● The latest IPSI firmware, which is available at the Avaya Support Web site (http://avaya.com/support). Click Downloads and select your product (S8500, S8700, S8710).

To find out the firmware that is currently on the IPSIs, see Determine current IPSI firmware on page 221
Upgrading firmware on the IPSIs

Access the Maintenance Web Interface

The following steps allow you to access the Maintenance Web Interface.

1. If on site, connect to the services port on the back of the media server.
   
   If off site, log into the media server using the IP address of the media server.

2. Launch the Web browser.

3. If connected directly to the media server, type \texttt{192.11.13.6} in the Address field to bring up the logon Web page.
   
   If connected through the network, type in the host name or IP address of the media server.

4. Log in as \texttt{craft} or \texttt{dadmin}.

5. When asked whether to suppress alarms, click \texttt{yes}.

6. Click \texttt{Launch Maintenance Web Interface} to get to the Main Menu.
Determine current IPSI firmware

The following steps determine the firmware version on each IPSI.

1. Under IPSI Firmware Upgrades click **IPSI Version** and select **Query All** to see the firmware version of every IPSI circuit pack.

   ![IPSI Version]

   The output looks something like this:

<table>
<thead>
<tr>
<th>IP address</th>
<th>IPSI Name</th>
<th>IPSI Board</th>
<th>HW#</th>
<th>FW#</th>
</tr>
</thead>
<tbody>
<tr>
<td>135.9.77.28</td>
<td>ipsi-A01e</td>
<td>TN2312</td>
<td>32</td>
<td>7</td>
</tr>
</tbody>
</table>

   The last column shows the firmware version.

2. Print the page.

3. Determine which IPSIs need new firmware.

---

Upgrade Tasks

**Pre-upgrade tasks:**

- [Access the Maintenance Web Interface](#) on page 222
- [Copy firmware files to media server](#) on page 222
- [Determine active IPSIs (duplicated control network only)](#) on page 223
- [Busy out standby IPSIs (duplicated control network only)](#) on page 223
Upgrading firmware on the IPSIs

Upgrade tasks:

- [Download firmware to IPSI](#) on page 223
- [Activate the new firmware](#) on page 225
- [Release standby IPSIs (duplicated control network only)](#) on page 226
- [Verify the health of the IPSIs](#) on page 226

Post-upgrade tasks:

- [Verify IPSI firmware version](#) on page 227

---

Pre-Upgrade tasks

Access the Maintenance Web Interface

The following steps allow you to access the Maintenance Web Interface.

**Note:**

If duplicated media servers, you must connect to the *active* media server.

1. If on site, connect to the services port (default 2 [Eth1]) on the back of the media server.

   If off site, log into the media server using the IP address of the media server.

2. Launch the Web browser.

3. If connected directly to the media server, type **192.11.13.6** in the Address field to bring up the logon Web page.

   If connected through the network, type in the host name or IP address of the media server.

4. Log in as **craft** or **dadmin**.

5. When asked whether to suppress alarms, click **yes**.

6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

Copy firmware files to media server

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.

2. Select **File(s) to download from the machine I'm using to connect to the server**.
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.

4. Click **Download** to copy the file(s) to the media server.

   The files are automatically copied to the default file location.

**Determine active IPSIs (duplicated control network only)**

**Note:**

With a duplicated control network it is acceptable to download new firmware to an active IPSI. However, whenever possible, activate the new firmware to a standby IPSI.

The following step displays all the IPSIs.

1. Type `list ipserver-interface` and press **Enter** to determine which IPSIs in port networks are active.

2. Print the page, which shows the board locations (**Bd Loc**) and which IPSIs are active or standby (**Control State**) or write down the information.

**Busy out standby IPSIs (duplicated control network only)**

The following steps busy out the standby IPSIs.

1. Type `busyout ipserver-interface standbyIPSI`, where `standbyIPSI` is an IPSI in standby mode and press **Enter** to busy it out.

2. Repeat for each IPSI circuit pack in standby mode.

---

**Upgrade tasks**

**Download firmware to IPSI**

⚠️ **CAUTION:**

These steps will *not* disrupt call service unless a reset (for example, power failure) of the active IPSI occurs. A reset activates the new firmware image and may disrupt call service. To avoid that possibility, perform these steps during a low traffic period or, if duplicated IPSIs, perform these steps on the standby IPSIs only, interchange the IPSIs, then perform them on the remainder of the IPSIs.
The following steps download the firmware to each or all IPSIs.

1. Under IPSI Firmware Upgrades click **Download IPSI Firmware**.
2. Select the time when you want the firmware download to begin. You can do it immediately or schedule a time.

**CAUTION:**
Select **All IPSIs** only if the media server is shut down during an upgrade or on a new installation. **Never** select **All IPSIs** if duplicated IPSIs.

3. Select either an individual IPSI or **All IPSIs** by providing its cabinet number and carrier location.
4. Select the file to download.

5. Click **Download Firmware** to download the firmware to all IPSIs or an individual one.
6. If you have more than one IPSI to upgrade, repeat for each IPSI.
Important:
The firmware download is first stored in RAM on the IPSI. After the entire download file has been successfully sent to the IPSI, the IPSI burns the firmware image into ROM. The firmware download is not permanent until the image has been completely burned into ROM. If for any reason the download process is interrupted (for example, a break in the network connection, a failure of the IPSI, power loss to the IPSI, and so forth), you must initiate the download again.

7. Click Download Status to view
   - Scheduled firmware downloads
   - History and status of previous downloads.

8. If necessary, cancel scheduled downloads from this screen. If you cancel, you cancel all the scheduled downloads, not just an individual one, unless you are only downloading to one IPSI.

Activate the new firmware

CAUTION:
This causes a brief service interruption in a single control network configuration (the IPSIs are not duplicated). Schedule the activation for off hours.

CAUTION:
If a duplicated control network, schedule the activation for the IPSIs in a busied-out, standby mode only.

Once the firmware is downloaded to the IPSI, you must activate it. The new firmware could activate earlier if the IPSIs are reset for other reasons. When you manually reset the IPSIs, the command resets the IPSIs one at a time. When a particular IPSI’s turn arrives, it is reset even if it is busy handling calls.

1. Click Activate IPSI Upgrade.
2. Select either All IPSIs (if non-duplicated control network) or an individual IPSI by providing its cabinet number and carrier location.
3. Select the time when you want to start activating the firmware. You can do it immediately or schedule a time.
4. Select the time when you want to stop the activation. If the activations have not completed by the stop time, they will stop, and you must activate them at another time.
5. Click Activate IPSI Upgrade to start the activation or the clock for the activation schedule.
6. Click Activation Status to view
   - Scheduled firmware resets
   - History and status of the resets
Upgrading firmware on the IPSIs

7. If necessary, cancel the resets from this screen.

Cancellation affects only the IPSIs that have not yet been reset. The information displayed on this screen applies only to resets initiated from this screen. It does not display the status for resets initiated through the Avaya Communication Manager or from other events such as board removal, power loss, and so forth. Canceling the resets means some IPSIs will have newer firmware than others.

Release standby IPSIs (duplicated control network only)

Note:
The following steps are done using SAT commands.

The following steps release the IPSIs from busyout mode.

1. Type `release ipserver-interface busyIPSI`, where `busyIPSI` is a busied-out IPSI and press Enter to release it.
2. Repeat for each busied-out IPSI circuit pack.

Verify the health of the IPSIs

Note:
The following steps are done using SAT commands.

The following steps verify the health of the standby IPSIs.

1. Type `list ipserver-interface` and press Enter. Make sure that each standby IPSI has a State of Health of 0.0.0.
   If any have something other than 0.0.0, view the active alarms.
2. Type `display alarms` and press Enter to resolve them before proceeding.

⚠️ CAUTION:
If an IPSI has health problems, you should not interchange to that IPSI. Interchanging to an unhealthy IPSI could bring down all the calls on that port network.

Interchange the IPSIs (duplicated control network only)

The following steps interchange the IPSIs.

1. Type `set ipserver-interface location`, where `location` is the location of the standby IPSI to set the standby IPSI as the new active IPSI. This forces an interchange from the active to the standby IPSI.
2. Type `list ipserver-interface` again to make sure the new active IPSI is still healthy. The **State of Health** field should still be **0.0.0**.

All the IPSIs should now be interchanged so that the newly active IPSIs are running the new version of firmware and the newly standby IPSIs are still running the old version.

3. Repeat the steps in **Busy out standby IPSIs (duplicated control network only)** on page 223 through **Verify the health of the IPSIs** on page 226 for each new standby IPSI.

---

**Post-upgrade tasks**

**Verify IPSI firmware version**

The following steps list all the IPSIs and their firmware version.

1. Under IPSI Firmware Upgrades click **IPSI Version** and select **Query All** to verify that the IPSI circuit packs have the required firmware version.
Upgrading firmware on the IPSIs
Upgrading firmware on programmable TN circuit packs

TN circuit packs require firmware upgrades periodically. You can download new firmware to specific, programmable circuit packs; programmable circuit packs have a “P” in their suffix. For example TN799DP is programmable, but TN799C is not. This programmable capability reduces the need to physically remove circuit packs and return them to Avaya for firmware updates.

For the procedures for upgrading the firmware on these circuit packs, go to
Upgrading firmware on programmable TN circuit packs
Upgrading firmware on the Avaya Ethernet Switch

On occasion you may need to upgrade the firmware on the Avaya Ethernet switch. New firmware is available at Avaya Support (http://avaya.com/support). Click on Downloads, select the name of the Ethernet switch that you have, then select the firmware for your particular model.

Information on how to upgrade the firmware is in the following documents available on the Avaya Support Web site:

<table>
<thead>
<tr>
<th>Model</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-360 series</td>
<td>C360 Installation and Configuration Guide, &quot;Updating the Firmware&quot;</td>
</tr>
<tr>
<td>P333T</td>
<td>Avaya P333T User Guide for Version 4.0, &quot;Upgrading the Software&quot;</td>
</tr>
<tr>
<td>P3334T</td>
<td>Avaya P3334T User Guide for Version 4.0, &quot;Upgrading the Software&quot;</td>
</tr>
<tr>
<td>P3332MF</td>
<td>Avaya P332MF User Guide for Version 4.0, &quot;Upgrading the Software&quot;</td>
</tr>
<tr>
<td>P332GT-M</td>
<td>Avaya P332GT-ML User Guide for version 4.5, &quot;Upgrading the Software&quot;</td>
</tr>
</tbody>
</table>

You must be connected directly to the Avaya Ethernet switch to upgrade the firmware; you cannot upgrade the firmware through the media server.
Migrations

A migration is a change in hardware. The types of migration include:

- migrating a non-Linux-based switch to a Linux-based media server
- migrating a Linux-based media server to a different Linux-based media server
- migrating a media gateway to a different media gateway

A migration usually is accompanied by an upgrade.

The most common migrations are from non-Linux-based (for example, DEFINITY ONE/S8100) switches to Linux-based media servers. Less common are migrations from one Linux-based media server to another. Not all non-Linux-based switches can migrate to a Linux-based media server. Whether a switch can be migrated depends on the supported migration path. A migration path refers to the platform and software release from which you can migrate to the new platform.

A new license file is needed. You cannot "migrate" a license file when doing a hardware migration. Therefore, a brand new license must be generated out of Remote Feature Activation (RFA).

This section covers the migrations from existing DEFINITY systems to the Avaya S8500 or S8700 Series Media Servers.

Included in this section for the S8500 Media Server is:

- Migration paths
- Migrating hardware
- Pre-requisites

Included in this section for the S8700 Series Media Server is:

- Migration paths
- Migrating hardware
- Pre-requisites

If you are migrating to an S8500, see S8500 Media Server on page 234.

If you are migrating to an S8700 Series Media Server, see S8700 Series Media Server on page 237.

This section also includes migrating a G250 or G350 Media Gateway to a G700 Media Gateway. Information is provided for moving an S8300 an Internal Call Controller (ICC) or local survivable processor (LSP) in a G250 or G350 Media Gateway to a G700 Media Gateway.
S8500 Media Server

These procedures are for migrating from existing DEFINITY systems to the Avaya S8500 Media Server with limited down time. The existing systems supported for migrations must be standard reliability and direct connect—no systems using a center stage switch (CSS) or asynchronous transfer mode (ATM) are migratable. In all instances, the cabinets can be reused as port networks (PNs). You do not need a G650 Media Gateway. However, you can add a G650 Media Gateway port network if the existing system has only 1 or 2 port networks.

The existing systems that can migrate to an S8500 are:

- DEFINITY Server SI in a Single Carrier Cabinet (SCC) or Multicarrier Cabinet (MCC) (only the Direct-Connect configurations can be migrated)
- DEFINITY Server CSI in a Compact Modular Cabinet (CMC) (only the IP-PNC configurations can be migrated)
- DEFINITY ONE in a CMC (only the IP-PNC configurations can be migrated)
- Avaya IP600/S8100 in a G600 (only the IP-PNC configurations can be migrated)

Migration paths for S8500 Media Servers

For a list of DEFINITY systems and their releases that can be migrated to the S8500 Media Server configuration, see Table 8: DEFINITY Releases migratable to the S8500 Media Server configuration on page 234.

When migrating to an S8500, you can use the existing translations. The only supported method of moving translations from legacy systems is to freeze the translations and send them to Avaya's Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Table 8: DEFINITY Releases migratable to the S8500 Media Server configuration

<table>
<thead>
<tr>
<th>Software Release</th>
<th>SI</th>
<th>CSI</th>
<th>S8100/CMC1 (DEF ONE)</th>
<th>S8100/G600 (IP600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITY Release G3V4</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release G3s/si (w/Intel 386)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 of 2
These migration paths require that the media server is running a 1.2.x, 1.3.x, 2.0.x, or 2.1.x version of CM software before the migration is attempted. Upgrades from pre-CM 1.3.1 require the pre-upgrade service pack be installed before the upgrade to CM 3.0.

An S8500 Media Server running a 1.3.x or 2.x version of CM software can support a configuration that has one or more Local Survivable Processors (LSPs) running the 3.0 version of the CM software.

An S8500 Media Server running a 3.0 version of CM software can support a configuration that has one or more Enterprise Survivable Servers (ESSs) running the 3.x version of the CM software.

An S8500 Media Server that is running a 3.0 version of CM software can support a configuration that consists of LSPs and ESSs. The LSPs and ESSs must be running 3.0 or a later version of CM software. For additional information, see Upgrades on page 37.

### Table 8: DEFINITY Releases migratable to the S8500 Media Server configuration (continued)

<table>
<thead>
<tr>
<th>Software Release</th>
<th>SI</th>
<th>CSI</th>
<th>S8100/CMC1 (DEF ONE)</th>
<th>S8100/G600 (IP600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITY Release 5</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 6</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 6 with SREPON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 7</td>
<td>x</td>
<td>x</td>
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<td>DEFINITY Release 8</td>
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<td>x</td>
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<td></td>
</tr>
<tr>
<td>DEFINITY Release 9</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 10</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>MV Release 11/1.x</td>
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<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CM Release 2.0</td>
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<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CM Release 2.1</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM Release 2.2</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM Release 3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Migrating hardware

This section assumes that the media server complex is installed, configured, and operational.

DEFINITY Server SI in an MCC

When migrating an existing DEFINITY Server SI in an MCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 port networks (PNs). Avaya recommends that you install the IPSI in the A carrier in the existing processor port network (PPN) rather than in one of the expansion port networks (EPNs). But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event. The PPN must be powered down to replace the carrier. Before powering down the cabinet, you must do some pre-migration administration.

DEFINITY Server SI in an SCC

When migrating an existing DEFINITY Server SI in an SCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 port networks. Avaya recommends that you install the IPSI in the cabinet in the A position in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control cabinet with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event. The PPN stack must be powered down to replace the cabinet. Before powering down the cabinets, you must do some pre-migration administration.

DEFINITY Server CSI or DEFINITY ONE/S8100 in a CMC

When migrating an existing DEFINITY Server CSI or DEFINITY ONE in a CMC, you use one TN2312BP IPSI circuit pack to control the PN. If CSI, you replace the TN2182 Tone Clock circuit pack with the IPSI in the cabinet in the A position; you also remove the processor circuit pack. If DEFINITY ONE, you replace the processor circuit pack with the IPSI.

This is a service-affecting event. If CSI, the CMCs must be powered down to replace the processor and Tone Clock circuit packs. Before powering down the cabinets, you must do some pre-migration administration.
Avaya IP600/S8100 in G600

When migrating an existing Avaya IP600, you use one TN2312BP IPSI circuit pack to control the PN. You replace the processor circuit pack with the IPSI in the cabinet in the A position. This is a service-affecting event. The IP600 chassis must be powered down to replace the processor. Before powering down the chassis, you must do some pre-migration administration.

S8700 Series Media Server

These procedures are for migrating from existing DEFINITY and Linux platforms to the Avaya S8700 or S8710 Media Server configuration with limited down time. The S8700 or S8710 Media Server can be either a Multi-Connect configuration or an IP-Connect configuration.

The existing systems that can migrate to an S8700 or S8710 are:

- To a Multi-Connect configuration:
  - DEFINITY Server R in a Multicarrier Cabinet (MCC)
  - DEFINITY Server SI in a Single Carrier Cabinet (SCC) or Multicarrier Cabinet (MCC)
- To an IP-Connect configuration:
  - Avaya IP600 (S8100) in a G600 Media Gateway
  - DEFINITY ONE (S8100) in a Compact Modular Cabinet (CMC)
  - DEFINITY Server CSI in a CMC
  - DEFINITY Server SI in an SCC or MCC

The existing Linux systems that can migrate to an S8700 or S8710 are:

- S8500
- S8700 IP-Connect
- S8700 Multi-Connect

Migration paths for S8700 Series Media Servers

For a list of DEFINITY systems and their releases that can be migrated to the S8700 or S8710 Media Server Multi-Connect configuration, see DEFINITY system releases migratable to the S8700 or S8710 Multi-Connect configuration on page 238.
For a list of DEFINITY systems and their releases that can be migrated to the S8700 or S8710 Media Server IP-Connect configuration, see [DEFINITY system releases migratable to the S8700 or S8710 IP-Connect configuration](#) on page 239.

When migrating to an S8700 or S8710 Multi-Connect configuration, you can use the existing translations. For a DEFINITY Server R with a magneto optical drive, you can use the Magneto Optical Server Tool (MOST) to copy the translations to the S8700 or S8710 Media Server. For a DEFINITY Server R without an optical drive or a DEFINITY Server SI, you must freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation files on a PCMCIA flash card or compact flash card and translation reports. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

When migrating to an S8700 or S8710 IP-Connect configuration, in most cases, all the translations must be re-entered. However, when migrating from an S8100, the only supported method of moving translations is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

### Table 9: DEFINITY system releases migratable to the S8700 or S8710 Multi-Connect configuration

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
</tr>
<tr>
<td>DEFINITY Release G3V4</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release G3s/si (w/Intel 386)</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 5</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 6</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 6 with SREPN</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 7</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 8</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 9</td>
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</tr>
<tr>
<td>DEFINITY Release 10</td>
<td>x</td>
</tr>
<tr>
<td>MV 1.1</td>
<td>x</td>
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<tr>
<td>MV 1.2</td>
<td>x</td>
</tr>
<tr>
<td>CM 1.3</td>
<td>x</td>
</tr>
</tbody>
</table>
Table 9: DEFINITY system releases migratable to the S8700 or S8710 Multi-Connect configuration (continued)

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
<th>R</th>
<th>SI</th>
<th>S8500 to S8700</th>
<th>S8700 to S8710</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM 2.0</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
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<td>CM 2.1</td>
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<td>CM 3.0</td>
<td></td>
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</tr>
</tbody>
</table>

Table 10: DEFINITY system releases migratable to the S8700 or S8710 IP-Connect configuration

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
<th>R</th>
<th>SI</th>
<th>CSI</th>
<th>S8100/CMC1 (DEF1)</th>
<th>S8100/G600 (IP600)</th>
<th>S8500 to S8700</th>
<th>S8700 to S8710</th>
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</thead>
<tbody>
<tr>
<td>DEFINITY Release G3V4</td>
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<td>x</td>
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</tr>
<tr>
<td>DEFINITY Release G3s/si (w/Intel 386)</td>
<td></td>
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<td>x</td>
<td></td>
<td></td>
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<td>DEFINITY Release 10</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>MV 1.1</td>
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<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<tr>
<td>MV 1.2</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

1 of 2
Transferring translations

From a magneto optical disk

The Magneto Optical to S87x0 Translations (MOST) Tool is used to transfer translation files from a Magneto Optical disk to an Avaya S8700 Series Media Server. This tool is used only when migrating call processing translations on a DEFINITY Server R to an Avaya S8700 Series Media Server in a Multi-Connect configuration only.

The MOST tool is not shipped with every switch but should be available locally.

The MOST tool for use with the S8700 Media Server consists of:

- External Magneto Optical drive
- SCSI PC card
- External SCSI cable

The MOST tool for use with the S8710 Media Server consists of:

- External Magneto Optical drive
- USB cable
Ordering information

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700226269</td>
<td>Magneto Optical Server to S8700 Translations (not orderable)</td>
</tr>
<tr>
<td>700355415</td>
<td>Magneto Optical Server to S8710 Translations (with USB cable)</td>
</tr>
</tbody>
</table>

⚠️ CAUTION:
When creating the optical disk that will be used to move translations from the source switch to the S8700 Series Media Server, there are specific steps that must be followed. See Pre-site migration checklist on page 570.

Migrating hardware

This section assumes that the media server complex is installed, configured, and operational.

DEFINITY Server SI in an MCC

When migrating an existing DEFINITY Server SI in an MCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 port networks (PNs). Avaya recommends that you install the IPSI in the A carrier in the existing processor port network (PPN) rather than in one of the expansion port networks (EPNs). But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event. The PPN must be powered down to replace the carrier. Before powering down the cabinet, you must do some pre-migration administration.
DEFINITY Server SI in an SCC

When migrating an existing DEFINITY Server SI in an SCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 PNs. Avaya recommends that you install the IPSI in the cabinet in the A position in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control cabinet with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event. The PPN stack must be powered down to replace the cabinet. Before powering down the cabinets, you must do some pre-migration administration.

DEFINITY Server CSI or DEFINITY ONE/S8100 in a CMC

When migrating an existing DEFINITY Server CSI or DEFINITY ONE in a CMC, you use one TN2312BP IPSI circuit pack to control the PN. If CSI, you replace the TN2182 Tone Clock circuit pack with the IPSI in the cabinet in the A position; you also remove the processor circuit pack. If DEFINITY ONE, you replace the processor circuit pack with the IPSI.

This is a service-affecting event. If CSI, the CMCs must be powered down to replace the processor and Tone Clock. Before powering down the cabinets, you must do some pre-migration administration.

Avaya IP600/S8100 in G600

When migrating an existing Avaya IP600, you use one TN2312BP IPSI circuit pack to control the PN. You replace the processor circuit pack with the IPSI in the cabinet in the A position.

This is a service-affecting event. The IP600 chassis must be powered down to replace the processor. Before powering down the chassis, you must do some pre-migration administration.

Pre-requisites common to all migrations

The following list of conversion pre-requisites are common to all migration modules. Pre-requisites that are unique to a specific module are contained in the module.
Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
  ● 40 MB available disk space  
  ● direct Ethernet cable  
  ● serial cable and adapter  
  ● RS-232 port connector  
  ● Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  ● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  ● CD-ROM drive |
| Verify that your Services laptop has the appropriate software. | Correct software components include:  
  ● Windows 2000/XP operating system  
  ● Terminal emulation program: HyperTerminal or other  
  ● TCP/IP networking software: bundled with Windows OS  
  ● Web browser: Internet Explorer 5.0 or later |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
  ● Media Server  
  ● Media Gateway  
  ● auxiliary equipment  
  ● Communication Manager  
  These logins and passwords include the customer’s equipment. |
| Obtain the serial number of the Media Servers, if necessary. | You need a new RFA license file and authentication file.  
  You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |
<p>| Verify that you have the Communication Manager software distribution CD with the current software and firmware. | You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD. |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
<tr>
<td>Verify that you have copied all necessary files to your computer</td>
<td>These files may include: ● service packs ● license file ● authentication file ● firmware for programmable circuit packs</td>
</tr>
</tbody>
</table>
Pre-migration setup

When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>About 2 weeks before the migration, freeze the translations.</td>
<td>Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations. STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. Verify that a copy of the existing translations exists so they can be re-entered later.</td>
</tr>
<tr>
<td>- Collect the translations locally via a spare flash card.</td>
<td></td>
</tr>
<tr>
<td>If the existing system does not have a magneto optical drive or if the MOST (From a magneto optical disk on page 240) will not be used, send the translation media to the STS.</td>
<td></td>
</tr>
<tr>
<td>About 2 business days prior to the migration, contact the STARS team by creating a trouble ticket.</td>
<td>Whenever an S8x00 media server is upgraded from 1.x.x to 2.x.x and a new RFA authentication file is requested, ASG access (remote and on-site) is impacted and assistance is needed by the Service Tools and Application Remote Support (STARS) team to ensure successful ASG access before and after the upgrade. Use <a href="http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1">http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1</a></td>
</tr>
<tr>
<td>Mark the ticket status as CRITICAL.</td>
<td>Indicate text in the ticket to let the STARS team know that you are upgrading an S8x00 media server. Include the date of the upgrade and the FL and product/alarm ID of the system. The STARS team will contact you on how to access your product before and after the upgrade. A temporary ASG product ID will be created for you and your team to use for access during the time of the upgrade.</td>
</tr>
<tr>
<td>Be sure that the on-site installer has access to the ASG Site Manager tool.</td>
<td>If you have an engineer working on the Avaya WAN, who will be supporting the on-site technician during the time of the upgrade, be sure that they have access to the ASG Mobile tool prior to the upgrade</td>
</tr>
</tbody>
</table>
The STARS team will provide the escalation path to report ASG troubles during the upgrade. This happens at least one day prior to the migration.

Verify that you have the appropriate logins and passwords to access the media servers and server complex components. When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer's media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response.

This unique craft password remains valid until it is changed by installing a new authentication file.

Save the translation file to a directory on the Services laptop. Files normally are in the 1-4 megabytes range.

Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 EI circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.

License and Avaya authentication files

Use Remote Feature Activation (RFA) to obtain the Communication Manager license and Avaya authentication files. RFA is a Web-based application, available to Avaya employees and authorized BusinessPartners, that enables you to create and deploy license files for all Communication Manager product platforms. The RFA Web site is at http://rfa.avaya.com. For specific information on RFA and how to generate license and Avaya authentication files, go to the the RFA Information page available on the RFA Web site.

Note:
To access the RFA application, you must complete the RFA online training and have received access authorization.

To generate a license file, you need the following information:

- Your personal Single Sign-On (SSO) for the RFA Web site authentication login.
- SAP order number
● Required customer information

● For a new license, the serial number of one TN2312BP Internet Protocol Server Interface (IPSI) circuit pack designated the reference IPSI.

● For an updated license, the RFA system ID (SID) for the existing media server, which is necessary to locate the existing license.

● Internet access to the RFA Web page with Internet Explorer 5.0 or higher.

Before arriving on site, download the license and Avaya authentication files to the services laptop. The license and Avaya authentication files are installed during the installation process.

Once the Avaya authentication files are installed, Avaya services logins to the media server are protected by a challenge/response system called Access Security Gateway (ASG). The ASG challenge/response protocol confirms the validity of each user, reducing the opportunity for unauthorized access.

When finished installing the Avaya authentication file, Avaya Communication Manager has a password for the craft login. This password is unique to the customer’s server. You can use the password the next time you log in as craft, provided you access the media server through the services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access still requires an ASG challenge/response. The revised password is recorded by RFA and is obtained from ASG Conversant at 1-800-248-1234 or 1-720-444-5557.

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**Migration chapters**

- [Migrating to an Avaya S8500 Media Server](#) on page 249
- [Migrating to an Avaya S8700 Series Media Server](#) on page 425
- [Migrating to a G700 Media Gateway](#) on page 749
Chapter 4: Migrating to an Avaya S8500 Media Server

This chapter covers migrating from existing DEFINITY switches to the Avaya S8500 Media Server.

The most common migrations are from non-Linux-based (for example, DEFINITY ONE/S8100) switches to Linux-based media servers. Less common are migrations from one Linux-based media server to another. Not all non-Linux-based switches can migrate to a Linux-based media server. Whether a switch can be migrated depends on the supported migration path. A migration path refers to the platform and software release from which you can migrate to the new platform.

Migrating from existing DEFINITY and Linux platforms

These procedures are for migrating from existing DEFINITY switches to the Avaya S8500 Media Server with limited down time. The existing switches supported for migrations must be standard reliability and direct connect—no switches using a center stage switch (CSS) or asynchronous transfer mode (ATM) are migratable. In all instances, the cabinets can be reused as port networks. You do not need a G650 Media Gateway. However, you can add a G650 Media Gateway port network if the existing switch has only 1 or 2 port networks.

The existing switches that can migrate to an S8500 are

- DEFINITY Server SI in a Single Carrier Cabinet (SCC) or Multicarrier Cabinet (MCC) (only the Direct-Connect configurations can be migrated)
- DEFINITY Server CSI in a Compact Modular Cabinet (CMC) (only the IP-Connect configurations can be migrated)
- DEFINITY ONE in a CMC (only the IP-Connect configurations can be migrated)
- Avaya IP600/S8100 in a G600 (only the IP-Connect configurations can be migrated)

Migration paths

For a list of DEFINITY switches and their releases that can be migrated to the S8500 Media Server configuration, see DEFINITY Releases migratable to the S8500 Media Server configuration on page 250.
When migrating, you can use the existing translations. The only supported method of moving translations from legacy switches is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Table 11: DEFINITY Releases migratable to the S8500 Media Server configuration

<table>
<thead>
<tr>
<th>Software Release</th>
<th>SI</th>
<th>CSI</th>
<th>S8100/CMC1 (DEF ONE)</th>
<th>S8100/G600 (IP600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITY Release G3V4</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release G3s/si (w/Intel 386)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 5</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 6</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 7</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 8</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 9</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 10</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>MV Release 11/1.x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CM Release 2.0</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CM Release 2.1</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM Release 2.2</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM Release 3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These migration paths require that the media server is running a 1.2.x, 1.3.x, 2.0.x, or 2.1.x version of CM software before the migration is attempted. Upgrades from pre-CM 1.3.1 require the pre-upgrade service pack be installed before the upgrade to CM 3.0.

An S8500 Media Server running a 1.3.x or 2.x version of CM software can support a configuration that has one or more local survivable processors (LSPs) running the 3.0 version of the CM software.

An S8500 Media Server running a 3.0 version of CM software can support a configuration that has one or more Enterprise Survivable Servers (ESSs) running the 3.x version of the CM software.
Migrating hardware

An S8500 Media Server that is running a 3.0 version of CM software can support a configuration that consists of LSPs and ESSs. The LSPs and ESSs must be running 3.0 or a later version of CM software. For additional information, see the Upgrades chapter.

Migrating hardware

This section assumes that the media server complex is installed, configured, and operational.

DEFINITY Server SI in an MCC

When migrating an existing DEFINITY Server SI in an MCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 port networks (PNs). Avaya recommends that you install the IPSI in the A carrier in the existing processor port network (PPN) rather than in one of the expansion port networks (EPNs). But before installing the IPSI, you must change the PPN to a PN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event. The PPN must be powered down to replace the carrier. Before powering down the cabinet, you must do some pre-migration administration.

DEFINITY Server SI in an SCC

When migrating an existing DEFINITY Server SI in an SCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 PNs. Avaya recommends that you install the IPSI in the cabinet in the A position in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control cabinet with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event. The PPN stack must be powered down to replace the cabinet. Before powering down the cabinets, you must do some pre-migration administration.

DEFINITY Server CSI or DEFINITY ONE/S8100 in a CMC

When migrating an existing DEFINITY Server CSI or DEFINITY ONE in a CMC, you use one TN2312BP IPSI circuit pack to control the PN. If CSI, you replace the Tone Clock circuit pack with the IPSI in the cabinet in the A position; you also remove the processor circuit pack. If DEFINITY ONE, you replace the processor circuit pack with the IPSI.
Migrating to an Avaya S8500 Media Server

This is a service-affecting event. If CSI, the CMCs must be powered down to replace the processor and Tone Clock circuit packs. Before powering down the cabinets, you must do some pre-migration administration.

Avaya IP600/S8100 in a G600

When migrating an existing Avaya IP600, you use one TN2312BP IPSI circuit pack to control the PN. You replace the processor circuit pack with the IPSI in the cabinet in the A position.

This is a service-affecting event. The IP600 chassis must be powered down to replace the processor. Before powering down the chassis, you must do some pre-migration administration.

Pre-requisites for migrating to an S8500 Media Server

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

● Tasks that must be performed before going on site.
● Tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
● Tasks that must be completed before going on site.
● Tasks that must be performed on site before beginning the migration.
● Documents Avaya recommends that you have on hand for the migration.

Migration modules

This chapter describes the following types of migrations:

● Migrating a DEFINITY Server CSI in a CMC to an S8500 Media Server on page 253
● Migrating a DEFINITY Server SI Direct-Connect in an SCC to an IP-Connect on page 285
● Migrating a DEFINITY Server SI Direct-Connect in an MCC to an IP-Connect on page 323
● Migrating a DEFINITY ONE/S8100 to an S8500 Media Server on page 357
● Migrating an Avaya IP600/S8100 to an S8500 Media Server on page 389
Migrating a DEFINITY Server CSI in a CMC to an S8500 Media Server

These procedures are for migrating from an existing DEFINITY Server CSI in a compact modular cabinet (CMC) switch to the Avaya S8500 Media Server IP-Connect configuration. The existing switches supported for migrations must be standard reliability. In all instances, the cabinets can be reused as port networks. However, you can add a G650 Media Gateway port network if the existing switch has a port network.

When migrating an existing DEFINITY Server CSI in a CMC, you use one TN2312BP IPSI circuit pack to control the one port network. You need to replace the TN2182 Tone Click circuit pack with an IPSI in the cabinet in the A position; you also need to remove the processor circuit pack.

This is a service-affecting event.

---

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media server and, if Avaya supplied, the Ethernet switch, and uninterruptible power supply (UPS) in the 19-inch rack as described in the *Quick Start for Hardware Installation: Avaya S8500 Media Servers* (555-245-701)
- Replace the Tone-Clock with the IPSI circuit pack
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media server
- Complete the post-migration administration
Migration paths

DEFINITY Server CSI in a CMC and their releases that can be migrated to the S8500 Media Server IP-Connect configuration include DEFINITY Release 5 - 10, MV Release 11/1.x, and release 2.0 - 3.0 of Communication Manager.

When migrating, you can use the existing translations. The only supported method of moving translations from legacy switches is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-Site Checklist** on page 255 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:** on page 257 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
- **Pre-site migration checklist** on page 259 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 260 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 260 - these are the documents Avaya recommends that you have on hand for the migration.
### Tasks checklists

#### Pre-Site Checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Verify that your Services laptop has the appropriate hardware.        | Correct hardware components include:  
|                                                                       |   ● 40 MB available disk space  
|                                                                       |   ● direct Ethernet cable  
|                                                                       |   ● serial cable and adapter  
|                                                                       |   ● RS-232 port connector  
|                                                                       |   ● Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
|                                                                       |   ● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
|                                                                       |   ● CD-ROM drive  
| Verify that your Services laptop has the appropriate software.        | Correct software components include:  
|                                                                       |   ● Windows 2000/XP operating system  
|                                                                       |   ● Terminal emulation program: HyperTerminal or other  
|                                                                       |   ● TCP/IP networking software: bundled with Windows OS  
|                                                                       |   ● Web browser: Internet Explorer 5.0 or later  
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
|                                                                       |   ● Media Server  
|                                                                       |   ● Media Gateway  
|                                                                       |   ● auxillary equipment  
|                                                                       |   ● Communication Manager  
|                                                                       | These logins and passwords include the customer’s equipment.  
| Obtain the serial number of the Media Servers, if necessary.          | You need a new RFA license file and authentication file.  
|                                                                       | You need the serial number from the reference IPSI and the SAP order number to generate a new license file.  

1 of 2
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  - service packs  
  - license file  
  - authentication file  
  - firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see *Migration paths* on page 254.
When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **About 2 weeks before the migration, freeze the translations.** | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
- Collect the translations locally via a spare flash card.  
  - STS updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician.  
  - Contact the STS scheduling desk at 720-444-9418 for forms and additional information. |
| **About 2 business days prior to the migration, contact the STARS team by creating a trouble ticket.** | Whenever an S8x00 media server is upgraded from 1.x.x to 2.x.x and a new RFA authentication file is requested, ASG access (remote and on-site) is impacted and assistance is needed by the Service Tools and Application Remote Support (STARS) team to ensure successful ASG access before and after the upgrade.  
  - Mark the ticket status as CRITICAL.  
  - Indicate text in the ticket to let the STARS team know that you are upgrading an S8x00 media server. Include the date of the upgrade and the FL and product/alarm ID of the system.  
  - The STARS team will contact you on how to access your product before and after the upgrade. A temporary ASG product ID will be created for you and your team to use for access during the time of the upgrade. |
| **Be sure that the on-site installer has access to the ASG Site Manager tool.** | If you have an engineer working on the Avaya WAN, who will be supporting the on-site technician during the time of the upgrade, be sure that they have access to the ASG Mobile tool prior to the upgrade.  
  - The STARS team will provide the escalation path to report ASG troubles during the upgrade.  
  - This happens at least one day prior to the migration. |
### Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned. (if applicable)</td>
</tr>
<tr>
<td>✓</td>
<td>Verify that all existing circuit packs will work with the new system. Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>✓</td>
<td>Replace any TN799B/C C-LAN circuit packs. Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>✓</td>
<td>Replace 259A adapter and CAT3 cable. Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>✓</td>
<td>Replace TN570 EI circuit packs. Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>

---

- **Task**: Verify that you have the appropriate logins and passwords to access the media servers and server complex components.
- **Description**: When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer’s media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response.

  This unique craft password remains valid until it is changed by installing a new authentication file.

- **Task**: Copy the translation file from STS to a directory on the Services laptop.
- **Description**: Files normally are in the 1-4 megabytes range.
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>Verify that you have the license file from RFA and that it includes the licensed features.</td>
<td>Use the License File link on the Maintenance Web Interface to verify.</td>
</tr>
<tr>
<td>Verify that you have the Avaya authentication file from RFA.</td>
<td>Use the License File link on the Maintenance Web Interface to verify.</td>
</tr>
</tbody>
</table>

Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.
Additional documentation needed.

+---+-------------------------------------------------------------+---------------------------------------------------------------+
<table>
<thead>
<tr>
<th></th>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quick Start for Hardware Installation: Avaya S8500 Media Server (555-245-701)</td>
<td>A quick reference guide providing physical installation and connection information.</td>
</tr>
<tr>
<td></td>
<td>Installing and Configuring the Avaya S8500 Media Server (03-300143)</td>
<td>Provides installation instructions for the S8500 Media Server.</td>
</tr>
<tr>
<td></td>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
</tr>
</tbody>
</table>
+---+-------------------------------------------------------------+---------------------------------------------------------------+

## Migration tasks

This section assumes that the media server complex is installed, configured, and operational.

⚠️ **CAUTION:**

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor or tone clock circuit packs with an IPSI circuit pack
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

You may reuse the translations from the existing switch when migrating to an S8500 Media Server.

**Note:**

The new license file should be installed on the media server before making the change.

Perform these tasks to change a processor port network to a port network (CMC).
Pre-migration administration:
- Connecting to the processor on page 263
- Verifying system status on page 263
- Recording all busyouts on page 263
- Note node names and IP addresses on page 264
- Saving translations on page 264

Migration tasks:
- Accessing the media server on page 265
- Verifying license file on page 265
- Copying translation files to media server on page 266
- Restoring translation files on page 267
- Administering the IPSIs on page 268
- Backing up translations on page 270
- Verifying hardware on page 271
- Changing the control cabinet to a port network on page 272
- Powering down the control cabinet on page 273
- Powering down the control cabinet on page 273
- Replacing the processor circuit pack on page 273
- Replacing the TN799C C-LAN circuit pack (if necessary) on page 274
- Installing TN771 Maintenance/Test on page 274
- Connecting to the media server on page 274

Post-migration administration:
- Assigning IP addresses to the IPSI circuit packs on page 274
- Verifying IPSI translations on page 279
- Verifying IPSI connectivity on page 280
- Enabling control of IPSI(s) on page 280
- Verifying customer’s data on page 281
- Upgrading firmware (if necessary) on page 282
- Testing the installation on page 283
- Busying out previously busied out trunks on page 283
- Troubleshooting the migration on page 283
- Returning replaced equipment on page 283
Pre-migration administration

This is a service-affecting event. The CMCs must be powered down to replace the processor and tone clock circuit packs. Before powering down the cabinets, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

1. Connect the computer used to access the cabinet.
2. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
3. Log in as craft.

Verifying system status

You want to check which groups are in or out of service before the migration and compare the list after the migration to make sure they are the same.

To verify system status, perform the following steps:

1. Execute the following commands to see whether the system has administration:
   a. list configuration all
   b. list trunk-group
   c. list hunt-group

   If any command does not complete successfully, escalate the problem immediately. After the conversion, check the same administration to be sure that the translations are intact.

Recording all busyouts

To record busyouts, perform the following step:

1. Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.
Migrating a DEFINITY Server CSI in a CMC to an S8500 Media Server

---

**Note node names and IP addresses**

To record node names and IP addresses, complete the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   **Note:**
   
   If the existing switch has a TN799C C-LAN circuit packs, you must replace them with TN799DP circuit packs.

2. Type `display ip-interfaces` and press **Enter** to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press **Enter** to get the IP addresses that match the node names.

4. Write the information down for after the migration.

---

**Saving translations**

Although the migrated translations are already copied to the S8500 Media Server, this step is important in case you need to back out of the migration.

To save translations, complete the following steps:

   **Note:**
   
   Save translations to a flash card.

1. Type `save translation` and press **Enter** to save translations to the system disk.

   Either a **Command successfully completed** message displays or all error messages are logged.

---

**Migrating translations**

This section provides information for migrating translation files from the existing switch to the S8500 Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the **Address** field, type **192.11.13.6** and press **Enter** to bring up the login Web page.
4. Log in as **craft** or **dadmin**.
5. When asked **Do you want to suppress alarms?**, select **yes**.
6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

Verifying license file

To verify the license file, perform the following steps:

1. Under Security, click **License File**.
2. Verify that the **CommunicaMgr License Mode**: field shows **Normal**.
To copy translation files to the media server, perform the following steps:

1. Under Miscellaneous, click **Download Files**.

2. Click **Browse** and select the file saved on the services laptop.

3. Click **Download** to place the file on the media server.
Restoring translation files

To restore translation files, perform the following steps:

1. Under Data Backup/Restore, click **View/Restore Data**.

2. Select **Local Directory** and click **View**. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select **Force restore if server name mismatch** and **Force restore if backup version mismatch**.

4. Click **Restore** to restore the translation files.

5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

   When done, the screen displays **Restore is finished**.

7. Open a SAT session using Native Configuration Manager or Avaya Site Administration.

8. Type `reset system 4` and press **Enter** to load the restored translations.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.
Administering the IPSIs

To administer the IPSIs, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter

   ![IP Server Interface Parameters](image)

<table>
<thead>
<tr>
<th>SERVER INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPSI Host Name Prefix:</td>
</tr>
<tr>
<td><strong>Primary Control Subnet Address:</strong></td>
</tr>
<tr>
<td>172.22.0.0*</td>
</tr>
<tr>
<td>Secondary Control Subnet Address:</td>
</tr>
<tr>
<td>. . .</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch Identifier: A</td>
</tr>
<tr>
<td>IPSI Control of Port Networks:</td>
</tr>
<tr>
<td>disabled</td>
</tr>
</tbody>
</table>

   **NOTE:** * indicates data changed on the server

2. Verify that the **Primary Control Subnet Address** field is correct.

   The subnet address must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; Avaya Communication Manager does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** field is not correct, it must be changed on the media server. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks:** field is set to **disabled**.

5. Press Enter to submit the form.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `add ipserver-interface 1` and press Enter to add the IPSI circuit pack information.

2. When using static addressing, in the Host: field, type in the IP address for the IPSI in the port network listed in the Location: field.

3. Verify that the IP Control? field is set to y.

4. Verify that all the other fields are populated.

5. Press Enter to effect the changes.

6. Repeat steps 1 through 5 for each IPSI.

```
add ipserver-interface 1
IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 8
IP Control? y
Socket Encryption? n
Enable QoS? n
Primary IPSI
---------------
QoS Parameters
-------------
Location:
Host: 192.168.18.40
DHCP ID:
Call Control 802.1p: 6
Call Control DiffServ: 46
```
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.

   ```
   change system-parameters
   maintenance
   Page 1 of 3
   
   MAINTENANCE-RELATED SYSTEM PARAMETERS
   
   OPERATIONS SUPPORT PARAMETERS
   CPE Alarm Activation Level: none
   
   SCHEDULED MAINTENANCE
   Start Time: 22 : 00
   Stop Time: 06 : 00
   Save Translation: daily
   Update LSPs When Saving Translations: y
   Command Time-out (hours): 2
   Control Channel Interchange: no
   System Clocks/IPS Interchange: no
   ```

2. Select none (default), warning, minor, or major, depending on the level the customer wants.

Backing up translations

To back up translations, perform the following steps:

1. Under Data Backup/Restore, click Backup Now.

2. Select the data sets and the backup method.

   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.

3. Click Start Backup to begin the backup process.
Migration tasks

You may reuse the translations from the existing switch when migrating to an S8500 Media Server.

**Note:**
The new license file should be installed on the media server before making the change.

Perform these tasks to change a processor port network to a port network (CMC).

---

Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 271 for a list of required hardware.

**Table 4: Required Migration Hardware**

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter – optional)</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td>1 or more</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/C-LAN</td>
</tr>
</tbody>
</table>
### Table 4: Required Migration Hardware (continued)

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>106689516</td>
<td>TN771 Maintenance/Test circuit pack (optional)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108772583</td>
<td>TN2501AP Voice Announcement over LAN circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>ED-1E568-70G1 DEFINITY Audix Slim board (optional)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Note:**

The TN798 or TN2402 Processor circuit pack containing the Audix feature is being replaced with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.

**Note:**

Customers also need to add an ED-1E568-70G1 DEFINITY Audix Slim board and a TN2501AP Voice Announcement over LAN (VAL) circuit pack for announcements.

---

**Changing the control cabinet to a port network**

To change the control cabinet to a port network, you must:

- Remove the TN798 or TN2402 Processor circuit pack and replace the TN2182 Tone Clock circuit pack with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.
- Connect a CAT5 straight-through cable from the IPSI to the media server through the customer’s network.

**Note:**

If replacing a TN795 Processor circuit pack, you may not need the TN744D/E Call Classifier-Detector circuit pack. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack has call classifier functionality; however, increased voice and data traffic may require the TN744D/E Call Classifier-Detector circuit pack.

**Note:**

If you have a TN799C or earlier C-LAN circuit pack, you must replace it with a TN799DP C-LAN circuit pack.
Powering down the control cabinet

⚠️ **CAUTION:**
Make sure you have done the pre-migration administration. See [Pre-migration administration](#) on page 263.

To power down the control cabinet, perform the following steps:

1. Press and hold the shutdown button on the processor's faceplate until the shutdown process starts.
   
   Make sure you see the green light indicating the system has shut down before continuing.

⚠️ **DANGER:**
The latch on the power supply acts as the DC power switch and only removes DC power from the backplane, *not* the AC power. To remove the AC power from the cabinet, pull the AC power cord from the back of the cabinet.

2. Power down the cabinet by unplugging the power cord from the back of the cabinet.

Replacing the processor circuit pack

To replace the processor circuit pack, perform the following steps:

1. Remove the entire processor circuit pack and place it in an antistatic carrier or bag. You want it intact if you need to back out of the migration.

2. Remove the TN2182 Tone Clock circuit pack.

3. Remove the octopus cable from the connector associated with slot 2 on the connector panel.

4. Install the IPSI adapter to the connector associated with slot 2 on the connector panel.

5. Install the maintenance cable onto the 9-pin D-sub connector on the Adapter. This cable is for emergency transfer and "auxsig" signal.

**Note:**
The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes up only one slot.

6. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack into slot 2.

7. Attach the new label above the circuit pack slots.
Replacing the TN799C C-LAN circuit pack (if necessary)

To replace the TN799C C-LAN circuit pack, perform the following steps:

1. Remove the TN799C Control-LAN (C-LAN) circuit pack and place it in an antistatic carrier or bag.
2. Insert the new TN799DP C-LAN circuit pack into the same slot.
3. Replace the 259A adapter and CAT3 cable on the connector panel with the Amphenol adapter used for the TN2302AP IP Media Processor circuit pack and a CAT5 cable.

Installing TN771 Maintenance/Test

Install a TN771 Maintenance/Test circuit pack in slot 1. There must be one TN771 Maintenance/Test circuit pack per location. Maintenance functions were present on the TN798 or TN2402 Processor circuit pack and must be replaced by the TN771. This carrier does not have a TN775 Maintenance (EPN) dedicated slot.

Connecting to the media server

Connect one end of the GREEN CAT5 straight-through cable to the Ethernet switch on the customer’s network and the other to the IPSI adapter on the back of the media gateway.

Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 2: Connecting directly to the IPSI.

Figure 2: Connecting directly to the IPSI

Figure notes:
1. Services laptop
2. PCMCIA Network Interface Card (NIC)
3. NIC adapter cable (if necessary)
4. CAT5 crossover cable to IPSI

Note:
Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click Start > Run to open the Run dialog box.
2. Type command and press Enter to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press Enter to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: The specified entry was not found.

   This is returned when the specified IP address does not currently appear in the ARP cache.

Logging into the IPSI

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press Enter to open the Telnet window and connect to the IPSI.
   
   Prompt = [IPSI]:

   Note:
   
   While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press Enter (abbreviated command = il).

   Note:
   
   The craft login used on the IPSI has a different password than the craft login used on the media servers.

3. Log in as craft.
   
   Prompt = [IPADMIN]:

Setting the control interface

The following steps set the control interface.

1. Type `show control interface` and press Enter.

2. Type `show port 1` and press Enter to see the current settings.
3. Type `set control interface ipaddr netmask` and press Enter, where `ipaddr` is the customer-provided IP address and `netmask` is the customer-provided subnet mask.

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to `192.11.13.6` and login.

6. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to `192.11.13.6` and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press Enter to see the changes.

**Setting the VLAN and diffserv parameters**

The following steps sets the VLAN and diffserv parameters.

1. Log back in as `craft`.

2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**
Use Help to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

⚠️ **Important:**
Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

### Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press Enter
   Answer Y to the warning.

**Note:**
Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

**Note:**
Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See Figure 3: LED display showing that the IPSI has a static IP address)
Figure 3: LED display showing that the IPSI has a static IP address

Note:
Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See Clearing the ARP cache on page 275.

4. Repeat for each IPSI circuit pack.

Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click Ping.

![Ping](image)

The Ping web page provides useful network debugging. Use the host name or the IP address and execute a ping command to determine whether a specific network address is valid, and obtain information about processing data packets and diagnostics to troubleshoot problems.

Endpoints to Ping
- Host Name Or IP address
- IPSIs with cab number (1-99) carrier number
- UPS endpoints
- Other server(s), All IPSIs, UPS(s), Ethernet switches
- Other server via duplication link
- Ethernet switch endpoints

Options
- Do not look up symbolic names for host addresses
- Bypass normal routing tables and send directly to a host

2. Select IPSIs with cab number (1-99) carrier number. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click Execute Ping.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

**Note:**
Make sure the IPSI has the current firmware.

**CAUTION:**
This is the step that allows the media server to take control of the IPSI-controlled port network(s).
1. Type `change system-parameters ipserver-interface` and press `Enter`.

2. Set the **IPSI Control of Port Networks**: field to **enabled**

3. Press `Enter` to effect the change.

4. Type `save translation` and press `Enter`.

   All the port networks are now controlled by the media server.

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the changed cabinets (chassis). Verify that the information is correct.

**Verifying circuit pack locations**

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press `Enter` to view all the "cabinets." Verify that the cabinet number assigned to the changed cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the changed cabinet, and press `Enter`. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the stack (SCC) or media gateways in the rack (G600 or G650).
Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press Enter to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the **Code** and **Vintage** fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press Enter to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press Enter. Write down all enabled links.
2. Type `status link number` where **number** is 1-99 and press Enter.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page ([http://avaya.com/support](http://avaya.com/support)) and click **Downloads**.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click **View IPSI Version**. Select **Query All** and click **View IPSI Version**.
2. Verify the firmware release for the TN2312BP IPSI.
Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the Complete Configuration which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out previously busied out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an Installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating a DEFINITY Server SI Direct-Connect in an SCC to an IP-Connect

These procedures are for migrating from an existing DEFINITY Server SI Direct-Connect in an SCC switch to the Avaya S8500 or S8700 Series Media Server IP-Connect configuration.

These procedures are for migrating Direct-Connect to IP-Connect. However, if you want to change one or more port networks to Multi-Connect, see Conversions on page 759.

The existing switch uses Expansion Interface (EI) circuit packs to provide Port Network Connectivity (PNC) for 1, 2, or 3 port networks (PNs). The existing switch supported for migrations must be standard reliability. In all instances, the cabinets can be reused as PNs. However, you can add an EI-connected G650 Media Gateway port network if the existing switch has only 1 or 2 PNs.

When migrating an existing DEFINITY Server SI in an SCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 PNs. Avaya recommends that you install the IPSI in the cabinet in the A position in the existing processor port network (PPN) rather than in one of the expansion port networks (EPNs). But before installing the IPSI, you must change the PPN to a PN by replacing the processor control cabinet with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event.

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media server and, if Avaya supplied, the Ethernet switch(es), and uninterruptible power supplies (UPSs) in the 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8500 Media Servers (555-245-701) or in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703)

- Change the existing processor control cabinet/carerrier to an expansion control cabinet/carrier

- Replace Tone Clock with IPSI circuit packs

- Connect the media servers to the media gateways

- Enable control of the IPSIs, switching control to the media server

- Complete the post-migration administration
Migration paths

DEFINITY Server SI Direct-Connect in an SCC and their releases that can be migrated to the S8500 or S8700 Series Media Server IP-Connect configuration include DEFINITY Release G3V4, Release G3/si (w/Intel 386), Release 5 - 10, MV Release 11/1.x, and release 2.0 - 2.2 of Communication Manager.

When migrating, you can use the existing translations. The only supported method of moving translations from legacy switches is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site Checklist** on page 287 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration** on page 289 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
- **Pre-site migration checklist** on page 291 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 292 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 292 - these are the documents Avaya recommends that you have on hand for the migration.
## Tasks checklists

### Pre-site Checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
- 40 MB available disk space  
- direct Ethernet cable  
- serial cable and adapter  
- RS-232 port connector  
- Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
- 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
- CD-ROM drive |
| Verify that your Services laptop has the appropriate software. | Correct software components include:  
- Windows 2000/XP operating system  
- Terminal emulation program: HyperTerminal or other  
- TCP/IP networking software: bundled with Windows OS  
- Web browser: Internet Explorer 5.0 or later |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
- Media Server  
- Media Gateway  
- auxiliary equipment  
- Communication Manager  
These logins and passwords include the customer’s equipment. |
| Obtain the serial number of the Media Servers, if necessary. | You need a new RFA license file and authentication file.  
You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |

1 of 2
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  ● service packs  
  ● license file  
  ● authentication file  
  ● firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see [Migration paths](#) on page 286.

When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:
## Task

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.</td>
</tr>
<tr>
<td>STS updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician.</td>
</tr>
<tr>
<td>Contact the STS scheduling desk at 720-444-9418 for forms and additional information.</td>
</tr>
<tr>
<td>Whenever an S8x00 media server is upgraded from 1.x.x to 2.x.x and a new RFA authentication file is requested, ASG access (remote and on-site) is impacted and assistance is needed by the Service Tools and Application Remote Support (STARS) team to ensure successful ASG access before and after the upgrade.</td>
</tr>
<tr>
<td>Use <a href="http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1">http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1</a></td>
</tr>
<tr>
<td>Indicate text in the ticket to let the STARS team know that you are upgrading an S8x00 media server. Include the date of the upgrade and the FL and product/alarm ID of the system.</td>
</tr>
<tr>
<td>The STARS team will contact you on how to access your product before and after the upgrade. A temporary ASG product ID will be created for you and your team to use for access during the time of the upgrade.</td>
</tr>
<tr>
<td>If you have an engineer working on the Avaya WAN, who will be supporting the on-site technician during the time of the upgrade, be sure that they have access to the ASG Mobile tool prior to the upgrade</td>
</tr>
<tr>
<td>This happens at least one day prior to the migration.</td>
</tr>
</tbody>
</table>
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 E1 circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch to an S8710 Media Server, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
</tbody>
</table>

Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.
Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Start for Hardware Installation: Avaya S8500 Media Server (555-245-701)</td>
<td>A quick reference guide providing physical installation and connection information.</td>
</tr>
<tr>
<td>Installing and Configuring the Avaya S8500 Media Server (03-300143)</td>
<td>Provides installation instructions for the S8500 Media Server.</td>
</tr>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
</tr>
</tbody>
</table>

---

**Migration tasks**

This section assumes that the media server complex is installed, configured, and operational.

**CAUTION:**

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor control carrier/cabinet with an expansion control carrier/cabinet
- Replacing the Tone Clock and Maintenance circuit packs with an IP Server Interface (IPSI) and new maintenance circuit packs
- Replacing old expansion interface circuit packs with new ones, if necessary
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

Perform these tasks to change a processor port network to a port network (SCC).
Migrating a DEFINITY Server SI Direct-Connect in an SCC to an IP-Connect

Pre-migration administration:

- Connecting to the processor on page 295
- Verifying system status on page 295
- Recording all busyouts on page 295
- Note node names and IP addresses on page 296
- Saving translations on page 296

Migration tasks:

- Accessing the media server on page 297
- Verifying license file on page 297
- Copying translation files to media server on page 298
- Restoring translation files on page 299
- Administering the IPSIs on page 300
- Backing up translations on page 302
- Verifying hardware on page 303
- Removing the processor port network control cabinet on page 304
- Installing the expansion control carrier on page 304
- Stacking the port media gateways on page 305
- Installing IPSI and maintenance circuit packs on page 305
- Connecting the CAT5 cables to the IPSI circuit packs on page 308
- Installing Expansion Interface circuit packs on page 312
- Powering up the media gateway(s) on page 313

Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 313
- Verifying IPSI translations on page 318
- Verifying IPSI connectivity on page 319
- Enabling control of IPSI(s) on page 319
- Verifying customer’s data on page 320
- Upgrading firmware (if necessary) on page 321
- Testing the installation on page 322
- Busying out previously busied out trunks on page 322
- Troubleshooting the migration on page 322
- Returning replaced equipment on page 322
Pre-migration administration

This is a service-affecting event. The PPN stack must be powered down to replace the cabinet. Before powering down the cabinets, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

1. Use the computer used to access the cabinet.
2. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
3. Log in as craft.

Verifying system status

You want to check which groups are in or out of service before the migration and compare the list after the migration to make sure they are the same.

To verify system status, perform the following steps:

1. Execute the following commands to see whether the system has administration:
   a. list configuration all
   b. list trunk-group
   c. list hunt-group
   If any command does not complete successfully, escalate the problem immediately. After the conversion, check the same administration to be sure that the translations are intact.

Recording all busyouts

To record busyouts, perform the following steps:

1. Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.
Note node names and IP addresses

To record node names and IP addresses, perform the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   **Note:**
   If the existing switch has a TN799C C-LAN circuit pack, you’ll need to replace it with a TN799DP circuit pack.

2. Type `display ip-interfaces` and press **Enter** to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press **Enter** to get the IP addresses that match the node names.

4. Write the information down for after the migration.

Saving translations

Although the migrated translations are already copied to the S8500 Media Server, this step is important in case you need to back out of the migration.

   **Note:**
   Save translations to a flash card.

To save translations, perform the following step:

1. Type `save translation` and press **Enter** to save translations to the system disk.

   Either a **Command successfully completed** message displays or all error messages are logged.

Migrating translations

This section provides information for migrating translation files from the existing switch to the S8500 or S8700 Series Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the **Address** field, type `192.11.13.6` and press **Enter** to bring up the login Web page.
4. Log in as **craft** or **dadmin**.
5. When asked **Do you want to suppress alarms?**, select **yes**.
6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

Verifying license file

To verify the license file, perform the following steps:

1. Under Security, click **License File**.
2. Verify that the **CommunicaMgr License Mode**: field shows **Normal**.
To copy translation files to the media server, perform the following steps:

1. Under Miscellaneous, click **Download Files**.

2. Click **Browse** and select the file saved on the services laptop.

3. Click **Download** to place the file on the media server.
Restoring translation files

To restore translation files, perform the following steps:

1. Under Data Backup/Restore, click View/Restore Data.

2. Select Local Directory and click View. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.

4. Click Restore to restore the translation files.

5. Click Restore Status.

6. Select the first file, then scroll down and click Review Status to see the results of the restore.

   When done, the screen displays Restore is finished.

7. Open a SAT session using Native Configuration Manager or Avaya Site Administration.

8. Type reset system 4 and press Enter to load the restored translations.

   If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.
Administering the IPSIs

To administer the IPSIs, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter

   ```
   change system-parameters ipserver-interface
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS
   SERVER INFORMATION
   IPSI Host Name Prefix: 
   Primary Control Subnet Address: 172.22.0.0*
   Secondary Control Subnet Address: . . .
   OPTIONS
   Switch Identifier: A
   IPSI Control of Port Networks: disabled
   ```

   **NOTE:** * indicates data changed on the server

2. Verify that the **Primary Control Subnet Address** field is correct.

   The subnet address must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; Avaya Communication Manager does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**
   If the information displayed in the **Primary Control Subnet Address** field is not correct, it must be changed on the media server. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks:** field is set to **disabled**.

5. Press **Enter** to submit the form.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `add ipserver-interface 1` and press Enter to add the IPSI circuit pack information.

   ```
   add ipserver-interface 1
   IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 8
   IP Control? y
   Socket Encryption? n
   Enable QoS? n
   Primary IPSI
   QoS Parameters
   Location:
   Host: 192.168.18.40
   Call Control 802.1p: 6
   Call Control DiffServ: 46
   DHCP ID:
   ```

2. When using static addressing, in the Host: field, type in the IP address for the IPSI in the port network listed in the Location: field.

3. Verify that the IP Control? field is set to y.

4. Verify that all the other fields are populated.

5. Press Enter to effect the changes.

6. Repeat steps 1 through 5 for each IPSI.
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.

```plaintext
change system-parameters maintenance
```

2. Select none (default), warning, minor, or major, depending on the level the customer wants.

Back up translations

To back up translations, perform the following steps:

1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets and the backup method.

   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.

3. Click Start Backup to begin the backup process.

Migration tasks

Perform these tasks to change a processor port network to a port network (SCC).
Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 303 for a list of hardware.

Table 5: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J58890N</td>
<td>Port network expansion control carrier</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>CFY1B current limiter (CURL)</td>
<td>1</td>
</tr>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter)</td>
<td>1</td>
</tr>
<tr>
<td>108865775</td>
<td>TN775D Maintenance circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700168727</td>
<td>Short ribbon cable—from maintenance board to IPSI in MCC1 A carrier</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td></td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178074</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td></td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>106696081</td>
<td>TN570B Expansion Interface circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>105679542</td>
<td>Z100C Apparatus blank (optional)</td>
<td>1 or more</td>
</tr>
</tbody>
</table>
Removing the processor port network control cabinet

To remove the processor port network control cabinet, perform the following steps:

1. Label both ends of all the cables being removed from the cabinets. They are reused.

   CAUTION:
   All active calls processed through this port network are dropped when the cabinet stack is powered down. All trunks and lines within this cabinet stack are down until the cabinet stack is powered up and the media server controls the port network.

   Note:
   If the system is equipped with Power Failure Transfer (PFT) units using ground start trunks, you must install a temporary ground wire to the PFT units to allow them to operate properly when the cabinet is powered down. The AUX cable, that normally supplies the ground, will be disconnected.

2. Connect a 10 AWG (#25) (2.6 mm²) wire to pin 49 of the connecting block or to pin 49 of the CAP (cable access panel) on the power failure transfer panel.

3. Route the opposite end of the wire to an approved ground and connect.

4. Power down the cabinets in the SCC1 stack.

5. Remove all circuit packs from the cabinets and place them in an antistatic carrier.

6. Disconnect the cables on the front of the cabinets.

7. Disconnect the cables on the back of the cabinets.
   - CURL (cannot be reused)
   - TDM/LAN (reused)
   - ICC-a, -B (reused)

8. Remove all cabinet grounds.

9. Remove the top cabinet.

10. Remove the subsequent cabinets, including control cabinet A.

Installing the expansion control carrier

To install the expansion control media gateway, perform the following steps:

1. Install the J58890N expansion control media gateway.

2. Connect the media gateway grounds and power.
Stacking the port media gateways

To stack the port media gateways, perform the following steps:

1. If needed, stack a port media gateway (J58890H) on top of the expansion control media gateway.
2. If needed, stack a third and fourth port media gateway on top of the first port media gateway.
3. Install the new CFY1B CURL unit on the back of control cabinet A.
4. Connect all the cables to the back of all the media gateways.
   ● TDM/LAN
   ● ICC-A, -B

Installing IPSI and maintenance circuit packs

To install the IPSI and maintenance card circuit packs, perform the following steps:

1. Remove the TN2182 Tone Clock circuit pack from the control carrier and place it in an antistatic carrier.

   Note:
   If present, do not remove the TN771 Maintenance/Test circuit pack.

2. Remove the TN775B/C Maintenance (EPN) circuit pack from the expansion control carrier and place it in an antistatic carrier.

3. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot.

4. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack. See Ribbon Cable Connector on page 306.
5. Push the tabs on the ends of the connector inward to lock the connector in place.

6. Thread the ribbon through the slot on the front panel. See Simplex Reliability Ribbon Cable Connection on page 307.

7. Insert the TN775D Maintenance (EPN) circuit pack part way into the MAINTENANCE slot.

8. Attach the other end of the short ribbon cable to the top connector on the component side of the TN775D Maintenance (EPN) circuit pack (red line on the bottom). See Simplex Reliability Ribbon Cable Connection on page 307.
9. Push the tabs on the ends of the connector inward to lock the connector in place.

10. Thread the ribbon through the slot on the front panel.

11. Fully insert the circuit packs.

12. In the remainder of the empty slots, insert Z100C Apparatus blanks.

13. Assign the Switch and Cabinet ID to the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack just inserted. See Assigning IP addresses to the IPSI circuit packs on page 313.

Although you can use ICCC for connectivity, for consistency just use the ribbon in the front.
Connecting the CAT5 cables to the IPSI circuit packs

To connect the CAT5 cables to the IPSI circuit packs, perform the following steps:

1. Connect the GREEN CAT5 cable to the IPSI in the A carrier or cabinet in the A position.
2. Remove the upper and lower rear covers from the media gateway. See Removal of the upper and lower rear covers on page 308.

Figure notes:
1. Media Gateway B
2. Upper rear cover
3. Lower rear cover

3. Run the 25- or 50-m GREEN CAT5 cable from the Ethernet switch or customer network through the media gateway, using a cable pass-thru kit. See CAT5 cable in pass-thru kit on page 309.
4. Install the clamp on ferrite on the CAT5 Ethernet cable. See CAT5 cable run through the clamp-on ferrite on page 310.

⚠️ WARNING:

The ferrite must be located as close to the exit of the media gateway as possible.
Figure 8: CAT5 cable run through the clamp-on ferrite

Figure notes:
1. Media Gateway A  2. Clamp on Ferrite

⚠️ WARNING:
The ferrite must be located as close to the exit of the media gateway as possible.

5. Connect the GREEN CAT5 cable to the bottom connector on the front of the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack in media gateway A. See CAT5 cable connected to the IPSI on page 311.
6. Replace the rear covers and the ground plate. Dress the CAT5 Ethernet cable to exit either the left or right side of the media gateway. See Replacement of the upper and lower rear covers on page 312.
Installing Expansion Interface circuit packs

Note:
If the existing PPN has a TN776 or TN570 Expansion Interface circuit pack(s), you must replace them with a TN570B Expansion Interface, vintage 7, or higher circuit pack.

If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN776 or TN570 Expansion Interface circuit packs with a TN570D or later Expansion Interface circuit pack.

To install the Expansion Interface circuit packs, perform the following steps:
1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570B Expansion Interface, vintage 7, or higher EI circuit packs into the EXPN INTFC slots (A01).
Powering up the media gateway(s)

To power up the media gateway(s), perform the following steps:

1. Power up the media gateways.
2. Remove the emergency ground wire if used.

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.

Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 11: Connecting directly to the IPSI.
Figure 11: Connecting directly to the IPSI

![Diagram of connecting directly to the IPSI](cadlipsi KLC 031502)

Figure notes:

1. Services laptop
2. PCMCIA Network Interface Card (NIC)
3. NIC adapter cable (if necessary)
4. CAT5 crossover cable to IPSI

Note:
Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click **Start > Run** to open the Run dialog box.
2. Type `command` and press **Enter** to open a MS-DOS Command Line window.
3. Type `arp -d 192.168.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: **The specified entry was not found.**

This is returned when the specified IP address does not currently appear in the ARP cache.
Logging into the IPSI

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press `Enter` to open the Telnet window and connect to the IPSI.
   
   Prompt = [IPSI]:

   **Note:**
   
   While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press `Enter` (abbreviated command = `il`).

   **Note:**
   
   The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.
   
   Prompt = [IPADMIN]:

Setting the control interface

The following steps set the control interface.

1. Type `show control interface` and press `Enter`.

2. Type `show port 1` and press `Enter` to see the current settings.
3. Type `set control interface ipaddr netmask` and press Enter, where `ipaddr` is the customer-provided IP address and `netmask` is the customer provided subnet mask.

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to 192.11.13.6 and login.

6. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to 192.11.13.6 and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press Enter to see the changes.

**Setting the VLAN and diffserv parameters**

The following steps sets the VLAN and diffserv parameters.

1. Log back in as `craft`.

2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**
Use **Help** to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

**Important:**
Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

### Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press **Enter**
   Answer **Y** to the warning.

**Note:**
Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

**Note:**
Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See **Figure 12: LED display showing that the IPSI has a static IP address**
**Figure 12: LED display showing that the IPSI has a static IP address**

---

**Note:**

Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See [Clearing the ARP cache](#) on page 314.

4. Repeat for each IPSI circuit pack.

---

**Verifying IPSI translations**

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press **Enter**.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click **Ping**.

2. Select **IPSI's with cab number (1-99) ____ carrier number ____**. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click **Execute Ping**.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

**Note:**

Make sure the IPSI has the current firmware.
CAUTION:
This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type `change system-parameters ipserver-interface` and press Enter.

2. Set the IPSI Control of Port Networks: field to enabled

3. Press Enter to effect the change.

4. Type `save translation` and press Enter.

All the port networks are now controlled by the media server.

---

Verifying customer’s data

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the changed cabinets (chassis). Verify that the information is correct.

Verifying circuit pack locations

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the changed cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the changed cabinet, and press Enter. Under Carrier Description, Carrier Type verify that the number of
"carriers" in use matches the number of media gateways in the stack (SCC) or media gateways in the rack (G600 or G650).

### Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press **Enter** to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the **Code** and **Vintage** fields rather than "no board", indicating that a circuit pack was not installed in that slot.

### Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press **Enter** to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press **Enter** to verify that the node names exist and the IP addresses match up with the node names.

### Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press **Enter**. Write down all enabled links.
2. Type `status link number` where **number** is 1-99 and press **Enter**.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

### Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page [http://avaya.com/support](http://avaya.com/support) and click **Downloads**.
First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.
2. Verify the firmware release for the TN2312BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out previously busied out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an Installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating a DEFINITY Server SI Direct-Connect in an MCC to an IP-Connect

These procedures are for migrating from an existing DEFINITY Server SI Direct-Connect in an MCC switch to the Avaya S8500 or S8700 Series Media Server IP-Connect configuration.

These procedures are for migrating Direct-Connect to IP-Connect. However, if you want to change one or more port networks to Multi-Connect, see Conversions.

The existing switch uses Expansion Interface (EI) circuit packs to provide Port Network Connectivity (PNC) for 1, 2, or 3 port networks (PNs). The existing switches supported for migrations must be standard reliability. In all instances, the cabinets can be reused as PNs. However, you can add an EI-connected G650 Media Gateway port network if the existing switch has only 1 or 2 PNs.

When migrating an existing DEFINITY Server SI in an MCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 PNs. Avaya recommends that you install the IPSI in the A carrier in the existing processor port network (PPN) rather than in one of the expansion port networks (EPNs). But before installing the IPSI, you must change the PPN to a PN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event.

Basic migration steps

When migrating from DEFINITY Server SI in an MCC:

- Install the media server and, if Avaya supplied, the Ethernet switch(es) and uninterruptible power supplies (UPSs) in the 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8500 Media Servers (555-245-701) or in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703)
- Change the existing processor control cabinet/carrier to an expansion control cabinet/carrier
- Replace the Tone Clock with the IPSI circuit pack
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media server
- Complete the post-migration administration
**Migration paths**

DEFINITY Server SI Direct-Connect in an MCC and their releases that can be migrated to the S8500 or S8700 Series Media Server IP-Connect configuration include DEFINITY Release G3V4, Release G3s/si (w/Intel 386), Release 5 - 10, MV Release 11/1.x, and release 2.0 - 2.2 of Communication Manager.

When migrating, you can use the existing translations. The only supported method of moving translations from legacy switches is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

**Prerequisites**

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 325 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:** on page 327 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
- **Pre-site migration checklist** on page 329 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 330 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migration** on page 330 - these are the documents Avaya recommends that you have on hand for the migration.
## Tasks checklists

### Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| ✓ Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
  - 40 MB available disk space  
  - direct Ethernet cable  
  - serial cable and adapter  
  - RS-232 port connector  
  - Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  - 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  - CD-ROM drive |
| ✓ Verify that your Services laptop has the appropriate software. | Correct software components include:  
  - Windows 2000/XP operating system  
  - Terminal emulation program: HyperTerminal or other  
  - TCP/IP networking software: bundled with Windows OS  
  - Web browser: Internet Explorer 5.0 or later |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
  - Media Server  
  - Media Gateway  
  - auxiliary equipment  
  - Communication Manager  
  These logins and passwords include the customer’s equipment. |
| Obtain the serial number of the Media Servers, if necessary. | You need a new RFA license file and authentication file.  
  You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
<tr>
<td>Verify that you have copied all necessary files to your computer</td>
<td>These files may include:</td>
</tr>
<tr>
<td></td>
<td>● service packs</td>
</tr>
<tr>
<td></td>
<td>● license file</td>
</tr>
<tr>
<td></td>
<td>● authentication file</td>
</tr>
<tr>
<td></td>
<td>● firmware for programmable circuit packs</td>
</tr>
</tbody>
</table>
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out Electronic Preinstallation Worksheet (EPW)</td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration. Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see [Migration paths](#) on page 324.
When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>About 2 weeks before the migration, freeze the translations.</td>
<td>Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations. STS updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.</td>
</tr>
<tr>
<td>● Collect the translations locally via a spare flash card.</td>
<td></td>
</tr>
<tr>
<td>About 2 business days prior to the migration, contact the STARS team by creating a trouble ticket.</td>
<td>Whenever an S8x00 media server is upgraded from 1.x.x to 2.x.x and a new RFA authentication file is requested, ASG access (remote and on-site) is impacted and assistance is needed by the Service Tools and Application Remote Support (STARS) team to ensure successful ASG access before and after the upgrade. Use <a href="http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1">http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1</a></td>
</tr>
<tr>
<td>Mark the ticket status as CRITICAL.</td>
<td>Indicate text in the ticket to let the STARS team know that you are upgrading an S8x00 media server. Include the date of the upgrade and the FL and product/alarm ID of the system. The STARS team will contact you on how to access your product before and after the upgrade. A temporary ASG product ID will be created for you and your team to use for access during the time of the upgrade.</td>
</tr>
<tr>
<td>Be sure that the on-site installer has access to the ASG Site Manager tool.</td>
<td>If you have an engineer working on the Avaya WAN, who will be supporting the on-site technician during the time of the upgrade, be sure that they have access to the ASG Mobile tool prior to the upgrade.</td>
</tr>
<tr>
<td></td>
<td>The STARS team will provide the escalation path to report ASG troubles during the upgrade. This happens at least one day prior to the migration.</td>
</tr>
</tbody>
</table>
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardenewantages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 EI circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓</th>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td></td>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td></td>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch to an S8710 Media Server, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓</th>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
</tbody>
</table>

Documentation checklist for migration

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.
Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Start for Hardware Installation: Avaya S8500 Media Server (555-245-701)</td>
<td>A quick reference guide providing physical installation and connection information.</td>
</tr>
<tr>
<td>Installing and Configuring the Avaya S8500 Media Server (03-300143)</td>
<td>Provides installation instructions for the S8500 Media Server.</td>
</tr>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
</tr>
</tbody>
</table>

### Migration tasks

This section assumes that the media server complex is installed, configured, and operational.

⚠️ **CAUTION:**

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor control carrier/cabinet with an expansion control carrier/cabinet
- Replacing the Tone Clock and Maintenance circuit packs with an IP Server Interface (IPSI) and new maintenance circuit packs
- Replacing old expansion interface circuit packs with new ones, if necessary
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

You may reuse the translations from the existing switch when migrating to an S8500 or S8700 Series Media Server.

Perform these tasks to change a processor port network to a port network (MCC).
Pre-migration administration:

- Connecting to the processor on page 333
- Verifying system status on page 333
- Recording all busyouts on page 333
- Note node names and IP addresses on page 334
- Saving translations on page 334

Migration tasks:

- Accessing the media server on page 335
- Verifying license file on page 335
- Copying translation files to media server on page 336
- Restoring translation files on page 337
- Administering the IPSIs on page 338
- Backing up translations on page 340
- Verifying hardware on page 341
- Removing the processor port network control carrier(s) on page 342
- Installing the expansion control carrier on page 343
- Installing IPSI and maintenance circuit packs on page 343
- Connecting the CAT5 cables to the IPSI circuit packs on page 346
- Installing Expansion Interface circuit packs on page 346
- Powering up the media gateway(s) on page 346

Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 346
- Verifying IPSI translations on page 351
- Verifying IPSI connectivity on page 352
- Enabling control of IPSI(s) on page 352
- Verifying customer's data on page 353
- Upgrading firmware (if necessary) on page 354
- Testing the installation on page 355
- Busying out previously busied out trunks on page 355
- Troubleshooting the migration on page 355
- Returning replaced equipment on page 355
Pre-migration administration

This is a service-affecting event. The PPN must be powered down to replace the carrier. Before powering down the cabinet, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

1. Use the computer used to access the cabinet.
2. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
3. Log in as craft.

Verifying system status

You want to check which groups are in or out of service before the migration and compare the list after the migration to make sure they are the same.

To verify system status, perform the following steps:

1. Execute the following commands to see whether the system has administration:
   a. list configuration all
   b. list trunk-group
   c. list hunt-group

   If any command does not complete successfully, escalate the problem immediately. After the conversion, check the same administration to be sure that the translations are intact.

Recording all busyouts

To record busyouts, perform the following steps:

1. Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.
Note node names and IP addresses

To record node names and IP addresses, perform the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   Note:
   If the existing switch has a TN799C C-LAN circuit pack, you’ll need to replace it with a TN799DP circuit pack.

2. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press Enter to get the IP addresses that match the node names.

4. Write the information down for after the migration.

Saving translations

Although the migrated translations are already copied to the media server, this step is important in case you need to back out of the migration.

   Note:
   Save translations to a flash card.

To save translations, perform the following step:

1. Type `save translation` and press Enter to save translations to the system disk.

   Either a Command successfully completed message displays or all error messages are logged.

Migrating translations

This section provides information for migrating translation files from the existing switch to the S8500 or S8700 Series Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Verifying license file

To verify the license file, perform the following steps:

2. Verify that the CommunicaMgr License Mode: field shows Normal.
Copying translation files to media server

To copy translation files to the media server, perform the following steps:

1. Under Miscellaneous, click **Download Files**.

2. Click **Browse** and select the file saved on the services laptop.

3. Click **Download** to place the file on the media server.
Restoring translation files

To restore translation files, perform the following steps:

1. Under Data Backup/Restore, click View/Restore Data.

2. Select Local Directory and click View. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.

4. Click Restore to restore the translation files.

5. Click Restore Status.

6. Select the first file, then scroll down and click Review Status to see the results of the restore.

   When done, the screen displays Restore is finished.

7. Open a SAT session using Native Configuration Manager or Avaya Site Administration.

8. Type reset system 4 and press Enter to load the restored translations.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.
Administering the IPSIs

To administer the IPSIs, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press `Enter`

   ```
   change system-parameters ipserver-interface
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS
   
   SERVER INFORMATION
   
   IPSI Host Name Prefix:
   Primary Control Subnet Address: 172.22.0.0*
   Secondary Control Subnet Address: . . .
   
   OPTIONS
   
   Switch Identifier: A
   IPSI Control of Port Networks: disabled
   
   NOTE: * indicates data changed on the server
   ```

2. Verify that the **Primary Control Subnet Address** field is correct.

   The subnet address must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; Avaya Communication Manager does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   ! **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** field is not correct, it must be changed on the media server. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks**: field is set to **disabled**.

5. Press `Enter` to submit the form.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `add ipserver-interface 1` and press **Enter** to add the IPSI circuit pack information.

   ```
   add ipserver-interface 1
   IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 8
   IP Control? y
   Socket Encryption? n
   Enable QoS? n
   Primary IPSI QoS Parameters
   ------------- ----------------
   Location: Call Control 802.1p: 6
   Host: 192.168.18.40 Call Control DiffServ: 46
   DHCP ID:
   ```

2. When using static addressing, in the **Host:** field, type in the IP address for the IPSI in the port network listed in the **Location:** field.

3. Verify that the **IP Control?** field is set to **y**.

4. Verify that all the other fields are populated.

5. Press **Enter** to effect the changes.

6. Repeat steps 1 through 5 for each IPSI.
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.

<table>
<thead>
<tr>
<th>change system-parameters</th>
<th>maintenance</th>
</tr>
</thead>
</table>

MAINTENANCE-RELATED SYSTEM PARAMETERS

OPERATIONS SUPPORT PARAMETERS

- CPE Alarm Activation Level: none

SCHEDULED MAINTENANCE

- Start Time: 22:00
- Stop Time: 06:00
- Save Translation: daily
- Update LSPs When Saving Translations: y
- Command Time-out (hours): 2
- Control Channel Interchange: no
- System Clocks/IPSI Interchange: no

2. Select none (default), warning, minor, or major, depending on the level the customer wants.

Backing up translations

To back up translations, perform the following steps:

1. Under Data Backup/Restore, click Backup Now.

2. Select the data sets and the backup method.

   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.

3. Click Start Backup to begin the backup process.
Migration tasks

Perform these tasks to change a processor port network to a port network (MCC).

Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 341 for a list of hardware.

Table 6: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J58890-AF-2 L13</td>
<td>Port network expansion control carrier</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>CFY1B current limiter (CURL)</td>
<td>1</td>
</tr>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter)</td>
<td>1</td>
</tr>
<tr>
<td>108865775</td>
<td>TN775D Maintenance circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700168727</td>
<td>Short ribbon cable—from maintenance board to IPSI in MCC1 A carrier</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td>1 or more</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>105679542</td>
<td>Z100C Apparatus blank (optional)</td>
<td>1 or more</td>
</tr>
</tbody>
</table>
Removing the processor port network control carrier(s)

To remove the processor port network control carrier(s), perform the following steps:

1. Label both ends of all the cables being removed from the control carriers. They may be reused.

⚠️ **CAUTION:**

All active calls processed through this port network are dropped when the cabinet is powered down. All trunks and lines within this cabinet are down until the cabinet is powered up and the media server controls the port network.

⚠️ **CAUTION:**

Do not power down the Survivable Remote Expansion Port Networks.

**Note:**

If the system is equipped with Power Failure Transfer (PFT) units using ground start trunks, you must install a temporary ground wire to the PFT units to allow them to operate properly when the cabinet is powered down. The AUX cable, that normally supplies the ground, will be disconnected.

2. Connect a 10 AWG (#25) (2.6 mm²) wire to pin 49 of the connecting block associated with the power failure transfer panel.

3. Route the opposite end of the wire to an approved ground and connect.

4. Disconnect the power cable on the front of carrier A.

5. Remove all circuit packs from carrier A and place in an antistatic carrier.

6. Remove power supplies from carrier A.

7. Remove faceplate from carrier A

8. Disconnect the cables on the back of carrier A.

   - TDM/LAN (reused)
   - ICC-A, -B (Replaced)
   - AUX Cable (reused)
   - 9-pin D subminiature plug on right side of cabinet from the P1 connector on carrier (reused)

9. Remove the Current Limiter (CURL) unit from the back of the carrier (can be reused).

10. Remove all carrier grounds.

11. Remove carrier A from the cabinet.
Installing the expansion control carrier

To install the expansion control carrier, perform the following steps:

1. Install the J58890-AF-2 L13 PN expansion control carrier in position A.
2. Connect the carrier grounds.
3. Install the CFY1B Current Limiter (CURL) unit on the back of control carrier A. (Reuse the CURL.)
4. Connect the cables to the back of the carriers.
   - TDM/LAN
     - Carrier A to D (if equipped)
     - Carrier A to B
     - Carrier B to C (if equipped)
   - ICC cables from carrier A to B (if required).
     - Simplex reliability: No ICC cables required.
   - AUX cable to carrier A.
   - 9 pin D subminiature plug to P1 connector on each carrier.
5. Install faceplates on carrier A.
6. Install power supplies in carrier A.

Installing IPSI and maintenance circuit packs

To install the IPSI and maintenance card circuit packs, perform the following steps:

1. Remove the TN2182 Tone Clock circuit pack from the control carrier and place it in an antistatic carrier.

   **Note:**
   If present, do not remove the TN771 Maintenance/Test circuit pack.

2. Remove the TN775B/C Maintenance (EPN) circuit pack from the expansion control carrier and place it in an antistatic carrier.

3. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot.

4. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the TN2312BP circuit pack. See Figure 13: Ribbon Cable Connector on page 344.
5. Push the tabs on the ends of the connector inward to lock the connector in place.

6. Thread the ribbon through the slot on the front panel. See Figure 14: Simplex Reliability Ribbon Cable Connection on page 345.
7. Insert the TN775D Maintenance (EPN) circuit pack part way into the MAINTENANCE slot.

8. Attach the other end of the short ribbon cable to the top connector on the component side of the TN775D Maintenance (EPN) circuit pack (red line on the bottom). See Figure 14: Simplex Reliability Ribbon Cable Connection on page 345.

9. Push the tabs on the ends of the connector inward to lock the connector in place.

10. Thread the ribbon through the slot on the front panel.

11. Fully insert the circuit packs.

12. In the remainder of the empty slots, insert Z100C Apparatus blanks.

13. Assign the Switch and Cabinet ID to the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack just inserted. See Assigning IP addresses to the IPSI circuit packs on page 346.

Although you can use ICCP for connectivity, for consistency just use the ribbon in the front.
Connecting the CAT5 cables to the IPSI circuit packs

See Quick Start for Hardware Installation: Avaya S8500 Media Server (555-245-701) or Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703) for a connectivity guide.

To connect the CAT 5 cables to the IPSI circuit packs, perform the following step:

1. Connect the GREEN CAT5 cable to the IPSI in the A carrier.

Installing Expansion Interface circuit packs

Note:

If the existing PPN has a TN776 or TN570 Expansion Interface circuit packs, you must replace them with a TN570B, vintage 7, or higher circuit pack.

If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN776 or TN570 Expansion Interface circuit packs with a TN570D or later Expansion Interface circuit pack.

To install the Expansion Interface circuit packs, perform the following steps:

1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570B Expansion Interface, vintage 7, or higher EI circuit packs into the EXPN INTFC slots (A01).

Powering up the media gateway(s)

To power up the media gateway(s), perform the following steps:

1. Power up the media gateways.
2. Remove the emergency ground wire if used.

Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 15: Connecting directly to the IPSI.

Figure 15: Connecting directly to the IPSI

Note: Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click Start > Run to open the Run dialog box.
2. Type command and press Enter to open a MS-DOS Command Line window.
Migrating a DEFINITY Server SI Direct-Connect in an MCC to an IP-Connect

3. Type `arp -d 192.11.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: **The specified entry was not found.**

   This is returned when the specified IP address does not currently appear in the ARP cache.

Logging into the IPSI

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press **Enter** to open the Telnet window and connect to the IPSI

   Prompt = [IPSI]:

   **Note:**
   - While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press **Enter** (abbreviated command = `il`).

   **Note:**
   - The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.

   Prompt = [IPADMIN]:

Setting the control interface

The following steps set the control interface.

1. Type `show control interface` and press **Enter**.

2. Type `show port 1` and press **Enter** to see the current settings.
3. Type `set control interface ipaddr netmask` and press Enter, where `ipaddr` is the customer-provided IP address and `netmask` is the customer provided subnet mask.

```
[IPSI]: ipsilogin
Login: craft
Password:
[IPADMIN]: set control interface 195.9.70.77 255.255.255.0
WARNING!! The control network interface will change upon exiting IPADMIN

[IPADMIN]: show control interface
Control Network IP Address - 195.9.70.77
Control Network Subnetmask = 255.255.255.0
Control Network Default Gateway = None
IPSI is not configured for DHCP IP address administration
[IPADMIN]:
```

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to `192.11.13.6` and login.

6. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using
   `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to `192.11.13.6` and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press Enter to see the changes.

**Setting the VLAN and diffserv parameters**

The following steps sets the VLAN and diffserv parameters.

1. Log back in as `craft`.
2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**

Use **Help** to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

**Important:**

Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

### Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press **Enter**
   Answer **Y** to the warning.

   **Note:**
   Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

   **Note:**
   Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See **Figure 16: LED display showing that the IPSI has a static IP address**)
Figure 16: LED display showing that the IPSI has a static IP address

Note:
Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See Clearing the ARP cache on page 347.

4. Repeat for each IPSI circuit pack.

Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click Ping.

2. Select IPSIs with cab number (1–99) ____ carrier number _____. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click Execute Ping.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

Note:
Make sure the IPSI has the current firmware.

⚠️ CAUTION:
This is the step that allows the media server to take control of the IPSI-controlled port network(s).
1. Type `change system-parameters ipserver-interface` and press **Enter**.

2. Set the **IPSI Control of Port Networks**: field to **enabled**

3. Press **Enter** to effect the change.

4. Type `save translation` and press **Enter**.

   All the port networks are now controlled by the media server.

---

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the changed cabinets (chassis). Verify that the information is correct.

**Verifying circuit pack locations**

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press **Enter** to view all the cabinets. Verify that the cabinet number assigned to the changed cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the changed cabinet, and press **Enter**. Under Carrier Description, Carrier Type verify that the number of carriers in use matches the number of media gateways in the media gateways in the rack (G600 or G650).
Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press Enter to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the **Code** and **Vintage** fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press Enter to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press Enter. Write down all enabled links.
2. Type `status link number` where **number** is 1-99 and press Enter.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click **View IPSI Version**. Select **Query All** and click **View IPSI Version**.
2. Verify the firmware release for the TN2312BP IPSI.
Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to upgrade firmware on programmable circuit packs, see Upgrading firmware on the IPSIs on page 219.

---

**Testing the installation**

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

---

**Busying out previously busied out trunks**

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

---

**Troubleshooting the migration**

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

---

**Returning replaced equipment**

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating a DEFINITY Server SI Direct-Connect in an MCC to an IP-Connect
Migrating a DEFINITY ONE/S8100 to an S8500 Media Server

These procedures are for migrating from an existing DEFINITY ONE/S8100 in a compact modular cabinet (CMC) switch to the Avaya S8500 Media Server IP-Connect configuration. The existing switches supported for migrations must be standard reliability and direct connect. In all instances, the cabinets can be reused as port networks. However, you can add a G650 Media Gateway port network if the existing switch has 1 port network.

When migrating an existing DEFINITY ONE/S8100 in a CMC, you use one TN2312BP IPSI circuit pack to control the port network. You also need to replace the processor circuit pack with the IPSI.

This is a service-affecting event.

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media server and, if Avaya supplied, the Ethernet switch, and uninterruptible power supply (UPS) in the 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8500 Media Servers (555-245-701)
- Change the existing processor control cabinet/chassis to a port network
- Replace the Tone-Clock with the IPSI circuit pack
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media server
- Complete the post-migration administration
Migration paths

DEFINITY ONE/S8100 and their releases that can be migrated to the S8500 Media Server IP-Connect configuration include DEFINITY Release 6 - 10, MV Release 11/1.x, and release 2.0 of Communication Manager.

When migrating, you can use the existing translations. The only supported method of moving translations from legacy switches is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 359 - these are tasks that must be performed before going on site.

- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration**; on page 361 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.

- **Pre-site migration checklist** on page 363 - these are tasks that must be completed before going on site.

- **On site migration checklist** on page 364 - these are tasks that must be performed on site before beginning the migration.

- **Documentation checklist for migrations** on page 364 - these are the documents Avaya recommends that you have on hand for the migration.
Tasks checklists

Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| ✓ Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
  ● 40 MB available disk space  
  ● direct Ethernet cable  
  ● serial cable and adapter  
  ● RS-232 port connector  
  ● Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  ● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  ● CD-ROM drive |
| ✓ Verify that your Services laptop has the appropriate software. | Correct software components include:  
  ● Windows 2000/XP operating system  
  ● Terminal emulation program: HyperTerminal or other  
  ● TCP/IP networking software: bundled with Windows OS  
  ● Web browser: Internet Explorer 5.0 or later |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
  ● Media Server  
  ● Media Gateway  
  ● auxillary equipment  
  ● Communication Manager  
  These logins and passwords include the customer’s equipment. |
| Obtain the serial number of the Media Servers, if necessary. | You need a new RFA license file and authentication file.  
  You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |
### Tasks and Descriptions

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click <strong>Downloads</strong> and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  - service packs  
  - license file  
  - authentication file  
  - firmware for programmable circuit packs |

---

2 of 2
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see *Migration paths* on page 358.

When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| About 2 weeks before the migration, freeze the translations. | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
- Collect the translation locally via a spare flash card.  
STS updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician.  
Contact the STS scheduling desk at 720-444-9418 for forms and additional information. |
| About 2 business days prior to the migration, contact the STARS team by creating a trouble ticket. | Whenever an S8x00 media server is upgraded from 1.x.x to 2.x.x and a new RFA authentication file is requested, ASG access (remote and on-site) is impacted and assistance is needed by the Service Tools and Application Remote Support (STARS) team to ensure successful ASG access before and after the upgrade.  
Use [http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1](http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1) |
| Mark the ticket status as CRITICAL. | Indicate text in the ticket to let the STARS team know that you are upgrading an S8x00 media server. Include the date of the upgrade and the FL and product/alarm ID of the system.  
The STARS team will contact you on how to access your product before and after the upgrade. A temporary ASG product ID will be created for you and your team to use for access during the time of the upgrade. |
| Be sure that the on-site installer has access to the ASG Site Manager tool. | If you have an engineer working on the Avaya WAN, who will be supporting the on-site technician during the time of the upgrade, be sure that they have access to the ASG Mobile tool prior to the upgrade |
| The STARS team will provide the escalation path to report ASG troubles during the upgrade. | This happens at least one day prior to the migration. |
### Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 EI circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded. See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs. The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that you have all necessary equipment onsite. See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch to an S8710 Media Server, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured. Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
</tbody>
</table>

Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.
Migration tasks

This section assumes that the media server complex is installed, configured, and operational.

⚠️ CAUTION:
This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor or tone clock circuit pack with an IPSI circuit pack
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

You may reuse the translations from the existing switch when migrating to an S8500 Media Server.

Note:
The new license file should be installed on the media server before making the change.

Perform these tasks to change a processor port network to a port network (CMC).
Migrating a DEFINITY ONE/S8100 to an S8500 Media Server

Pre-migration administration:

- Connecting to the processor on page 367
- Note node names and IP addresses on page 367
- Saving translations on page 368
- Note IP settings on page 368

Migration tasks:

- Accessing the media server on page 369
- Verifying license file on page 369
- Copying translation files to media server on page 370
- Restoring translation files on page 371
- Administering the IPSIs on page 372
- Backing up translations on page 374
- Verifying hardware on page 375
- Changing the control cabinet to a port network on page 376
- Powering down the control cabinet on page 377
- Replacing the processor circuit pack on page 377
- Replacing the TN799C C-LAN circuit pack (if necessary) on page 378
- Installing TN771 Maintenance/Test on page 378
- Connecting to the media server on page 378

Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 378
- Verifying IPSI translations on page 383
- Verifying IPSI connectivity on page 384
- Enabling control of IPSI(s) on page 384
- Verifying customer's data on page 385
- Upgrading firmware (if necessary) on page 386
- Testing the installation on page 387
- Busying out previously busied out trunks on page 387
- Troubleshooting the migration on page 387
- Returning replaced equipment on page 387
Pre-migration administration

This is a service-affecting event. The CMCs must be powered down to replace the processor and tone clock. Before powering down the cabinets, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

   Note: You need a crossover cable to connect your Services laptop directly to the processor.

1. Connect the Services laptop directly into the Avaya IP600 processor circuit pack
   ● If a TN795 Processor circuit pack, place the NIC card into the slot on the faceplate.
   ● If a TN2314 Processor circuit pack, plug the RJ45 connector directly into the RJ45 jack on the faceplate.

2. Start a terminal emulation application or Avaya Site Administration.

3. Log in as lucent3.

Note node names and IP addresses

To record node names and IP addresses, perform the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   Note: If the existing switch has a TN799C C-LAN circuit pack, you'll need to replace it with a TN799DP circuit pack.

2. Type display ip-interfaces and press Enter to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type list node-names and press Enter to get the IP addresses that match the node names.

4. Write the information down for after the migration.
Saving translations

This step is important in case you need to back out of the migration. You may want to print out the translations for reference.

To save translations, perform the following step:

1. Type `save translation` and press Enter to save translations to the system disk.

   Either a Command successfully completed message displays or all error messages are logged.

Note IP settings

Note the IP settings assigned to the processor as they may be used for the Avaya S8500 Media Server. Verify against the filled-out Electronic Preinstallation Worksheet.

The following administration is done on the Services laptop connected to the processor circuit pack using telnet. To note the IP settings, perform the following steps:

1. Select Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press Enter to access the Avaya IP600.
3. Log in as `lucent3` to get to the LAC prompt.
4. Type `bash` and press Enter to start a BASH session.
5. Type `setip` and press Enter to display the current list of IP settings. You will see the following information:
   - cust: IP address, subnet mask, gateway
   - dns: server name, domain name, 2 DNS server IP addresses
   - wins: 2 WINS server IP addresses
   - ras: 1 remote access server IP address

   6. Write down this information, exactly as it appears.

   You must record this information exactly as it appears here. You cannot miss any periods, commas, or other punctuation marks. Record information in lower or upper case as it appears.

Migrating translations

This section provides information for migrating translation files from the existing switch to the S8500 Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Verifying license file

To verify the license file, perform the following steps:

2. Verify that the CommunicaMgr License Mode: field shows Normal.
Copying translation files to media server

To copy translation files to the media server, perform the following steps:

1. Under Miscellaneous, click **Download Files**.

2. Click **Browse** and select the file saved on the services laptop.

3. Click **Download** to place the file on the media server.
Restoring translation files

To restore translation files, perform the following steps:

1. Under Data Backup/Restore, click **View/Restore Data**.

2. Select **Local Directory** and click **View**. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select **Force restore if server name mismatch** and **Force restore if backup version mismatch**.

4. Click **Restore** to restore the translation files.

5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

   When done, the screen displays **Restore is finished**.

7. Open a SAT session using Native Configuration Manager or Avaya Site Administration.

8. Type `reset system 4` and press **Enter** to load the restored translations.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.
## Administering the IPSIs

To administer the IPSIs, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press **Enter**

   ```
   change system-parameters ipserver-interface
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS
   
   SERVER INFORMATION
   
   IPSI Host Name Prefix:
   Primary Control Subnet Address: 172.22.0.0*
   Secondary Control Subnet Address: . . .
   
   OPTIONS
   
   Switch Identifier: A
   IPSI Control of Port Networks: disabled
   
   NOTE: * indicates data changed on the server
   ```

2. Verify that the **Primary Control Subnet Address** field is correct.

   The subnet address must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; Avaya Communication Manager does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** field is not correct, it must be changed on the media server. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks** field is set to **disabled**.

5. Press **Enter** to submit the form.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `add ipserver-interface 1` and press Enter to add the IPSI circuit pack information.

   ```
   add ipserver-interface 1
   IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 8
   
   IP Control? y
   Socket Encryption? n
   
   Primary IPSI
   Enable QoS? n
   -------------
   QoS Parameters
   
   Location:
   Call Control 802.1p: 6
   
   Host: 192.168.18.40
   Call Control DiffServ: 46
   
   DHCP ID:
   ```

2. When using static addressing, in the Host: field, type in the IP address for the IPSI in the port network listed in the Location: field.

3. Verify that the IP Control? field is set to y.

4. Verify that all the other fields are populated.

5. Press Enter to effect the changes.

6. Repeat steps 1 through 5 for each IPSI.
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.

2. Select `none` (default), `warning`, `minor`, or `major`, depending on the level the customer wants.

### Backing up translations

To back up translations, perform the following steps:

1. Under Data Backup/Restore, click **Backup Now**.

2. Select the data sets and the backup method.

   If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.

3. Click **Start Backup** to begin the backup process.
Migration tasks

You may reuse the translations from the existing switch when migrating to an S8500 Media Server.

Note:
The new license file should be installed on the media server before making the change.

Perform these tasks to change a processor port network to a port network (CMC).

Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 375 for a list of required hardware.

Table 7: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter – optional)</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or more</td>
</tr>
<tr>
<td>70261928</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/C-LAN</td>
</tr>
</tbody>
</table>

1 of 2
Migrating a DEFINITY ONE/S8100 to an S8500 Media Server

Table 7: Required Migration Hardware (continued)

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>106689516</td>
<td>TN771 Maintenance/Test circuit pack (optional)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108772583</td>
<td>TN2501AP Voice Announcement over LAN circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>ED-1E568-70G1 DEFINITY Audix Slim board (optional)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note:
If customers are currently using the Audix feature on the S8100 Media Server, they need to purchase a separate Audix system. The TN795 or TN2314 Processor circuit pack containing the Audix feature is being replaced with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.

Note:
Customers also need to add an ED-1E568-70G1 DEFINITY Audix Slim board and a TN2501AP Voice Announcement over LAN (VAL) circuit pack for announcements.

---

Changing the control cabinet to a port network

To change the control cabinet to a port network, you must:

- Replace the TN795 or TN2314 Processor circuit pack with a TN2312BP Internal Protocol Server Interface (IPSI) circuit pack.
- Connect a CAT5 straight-through cable from the IPSI to the media server through the customer’s network.

Note:
If replacing a TN795 Processor circuit pack, you may not need the TN744D/E Call Classifier-Detector circuit pack. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack has call classifier functionality; however, increased voice and data traffic may require the TN744D/E Call Classifier-Detector circuit pack.

Note:
If you have a TN799C or earlier C-LAN circuit pack, you must replace it with a TN799DP C-LAN circuit pack.
Migration tasks

Powering down the control cabinet

⚠️ CAUTION:
Make sure you have done the pre-migration administration. See Pre-migration administration on page 367.

To power down the control cabinet, perform the following steps:

1. Press and hold the shutdown button on the processor’s faceplate until the shutdown process starts.

Make sure you see the green light indicating the system has shut down before continuing.

⚠️ DANGER:
The latch on the power supply acts as the DC power switch and only removes DC power from the backplane, not the AC power. To remove the AC power from the cabinet, pull the AC power cord from the back of the cabinet.

2. Power down the cabinet by unplugging the power cord from the back of the cabinet.

Replacing the processor circuit pack

To replace the processor circuit pack, perform the following steps:

1. Remove the entire processor circuit pack and place it in an antistatic carrier or bag. You want it intact if you need to back out of the migration.

2. Remove the octopus cable from the connector associated with slot 2 on the connector panel.

3. Install the IPSI adapter to the connector associated with slot 2 on the connector panel.

4. Install the maintenance cable onto the 9-pin D-sub connector on the Adapter. This cable is for emergency transfer and "auxsig" signal.

   Note:
The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes up only one slot.

5. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack into slot 2.

6. Attach the new label above the circuit pack slots.
Replacing the TN799C C-LAN circuit pack (if necessary)

To replace the TN799C C-LAN circuit pack, perform the following steps:

1. Remove the TN799C Control-LAN (C-LAN) circuit pack and place it in an antistatic carrier or bag.
2. Insert the new TN799DP C-LAN circuit pack into the same slot.
3. Replace the 259A adapter and CAT3 cable on the connector panel with the Amphenol adapter used for the TN2302AP IP Media Processor circuit pack and a CAT5 cable.

Installing TN771 Maintenance/Test

Install a TN771 Maintenance/Test circuit pack in slot 1. There must be one TN771 Maintenance/Test circuit pack per location. Maintenance functions were present on the TN798 or TN2402 Processor circuit pack and must be replaced by the TN771. This carrier does not have a TN775 Maintenance (EPN) dedicated slot.

Connecting to the media server

Connect one end of the GREEN CAT5 straight-through cable to the Ethernet switch on the customer's network and the other to the IPSI adapter on the back of the media gateway.

Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 17: Connecting directly to the IPSI.

Figure 17: Connecting directly to the IPSI

- Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click Start > Run to open the Run dialog box.
2. Type command and press Enter to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:

- The command line prompt when the cache has been cleared.
- The phrase: **The specified entry was not found.**

This is returned when the specified IP address does not currently appear in the ARP cache.

### Logging into the IPSI

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press **Enter** to open the Telnet window and connect to the IPSI

   **Prompt = [IPSI]:**

   **Note:** While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press **Enter** (abbreviated command = `il`).

   **Note:** The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.

   **Prompt = [IPADMIN]:**

### Setting the control interface

The following steps set the control interface.

1. Type `show control interface` and press **Enter**.

2. Type `show port 1` and press **Enter** to see the current settings.
3. Type `set control interface ipaddr netmask` and press **Enter**, where `ipaddr` is the customer-provided IP address and `netmask` is the customer provided subnet mask.

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to **192.11.13.6** and login.

6. Enter `show control interface`. The IP address, subnet mask, and default gateway information are displayed. Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to **192.11.13.6** and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press **Enter** to see the changes.

### Setting the VLAN and diffserv parameters

The following steps sets the VLAN and diffserv parameters.

1. Log back in as **craft**.

2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**
Use Help to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

⚠️ **Important:**
Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

### Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press `Enter`
   Answer `Y` to the warning.

   **Note:**
   Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

   **Note:**
   Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See [Figure 18: LED display showing that the IPSI has a static IP address](#))
Figure 18: LED display showing that the IPSI has a static IP address

Note:
Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See Clearing the ARP cache on page 379.

4. Repeat for each IPSI circuit pack.

Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click Ping.

2. Select IPSIs with cab number (1–99) ___ carrier number ___. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click Execute Ping.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

Note:

Make sure the IPSI has the current firmware.

CAUTION:

This is the step that allows the media server to take control of the IPSI-controlled port network(s).
1. Type `change system-parameters ipserver-interface` and press Enter.

2. Set the **IPSI Control of Port Networks**: field to `enabled`

3. Press Enter to effect the change.

4. Type `save translation` and press Enter.

All the port networks are now controlled by the media server.

---

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the changed cabinets (chassis). Verify that the information is correct.

**Verifying circuit pack locations**

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the changed cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the changed cabinet, and press Enter. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the stack (SCC) or media gateways in the rack (G600 or G650).
Migrating a DEFINITY ONE/S8100 to an S8500 Media Server

Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press `Enter` to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the Code and Vintage fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press `Enter` to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press `Enter` to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press `Enter`. Write down all enabled links.
2. Type `status link number` where number is 1-99 and press `Enter`.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.
2. Verify the firmware release for the TN2312BP IPSI.
Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

---

**Testing the installation**

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

---

**Busying out previously busied out trunks**

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

---

**Troubleshooting the migration**

See Troubleshooting an Installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

---

**Returning replaced equipment**

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating a DEFINITY ONE/S8100 to an S8500 Media Server
Migrating an Avaya IP600/S8100 to an S8500 Media Server

These procedures are for migrating from an existing DEFINITY IP600/S8100 switch to the Avaya S8500 Media Server IP-Connect configuration. The existing switches supported for migrations must be standard reliability and direct connect. In all instances, the cabinets can be reused as port networks. However, you can add a G650 Media Gateway port network if the existing switch has only 1 or 2 port networks.

When migrating an existing Avaya IP600/S8100, you use one TN2312BP IPSI circuit pack to control the port network. You replace the processor circuit pack with the IPSI in the cabinet in the A position.

This is a service-affecting event.

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media server and, if Avaya supplied, the Ethernet switch, and uninterruptible power supply (UPS) in the 19-inch rack as described in the *Quick Start for Hardware Installation: Avaya S8500 Media Servers* (555-245-701)
- Change the existing processor control cabinet/carrier to a port network
- Replace the Tone-Clock with the IPSI circuit pack
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media server
- Complete the post-migration administration
Migration paths

DEFINITY IP600/S8100 and their releases that can be migrated to the S8500 Media Server IP-Connect configuration include DEFINITY Release 9 - 10, MV Release 11/1.x, and release 2.0 of Communication Manager.

When migrating, you can use the existing translations. The only supported method of moving translations from legacy switches is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 391 - these are tasks that must be performed before going on site.

- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:** on page 393 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.

- **Pre-site migration checklist** on page 395 - these are tasks that must be completed before going on site.

- **On site migration checklist** on page 396 - these are tasks that must be performed on site before beginning the migration.

- **Documentation checklist for migrations** on page 397 - these are the documents Avaya recommends that you have on hand for the migration.
## Tasks checklists

### Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that your Services laptop has the appropriate hardware.</td>
<td>Correct hardware components include:</td>
</tr>
<tr>
<td></td>
<td>• 40 MB available disk space</td>
</tr>
<tr>
<td></td>
<td>• direct Ethernet cable</td>
</tr>
<tr>
<td></td>
<td>• serial cable and adapter</td>
</tr>
<tr>
<td></td>
<td>• RS-232 port connector</td>
</tr>
<tr>
<td></td>
<td>• Network interface card (NIC) with a 10/100 BaseT Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>• 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an</td>
</tr>
<tr>
<td></td>
<td>RJ45 connector on each end (MDI to MDI-X)</td>
</tr>
<tr>
<td></td>
<td>• CD-ROM drive</td>
</tr>
<tr>
<td>Verify that your Services laptop has the appropriate software.</td>
<td>Correct software components include:</td>
</tr>
<tr>
<td></td>
<td>• Windows 2000/XP operating system</td>
</tr>
<tr>
<td></td>
<td>• Terminal emulation program: HyperTerminal or other</td>
</tr>
<tr>
<td></td>
<td>• TCP/IP networking software: bundled with Windows OS</td>
</tr>
<tr>
<td></td>
<td>• Web browser: Internet Explorer 5.0 or later</td>
</tr>
<tr>
<td>Obtain appropriate logins and passwords for all equipment and software.</td>
<td>For example, obtain logins and passwords for the following components:</td>
</tr>
<tr>
<td></td>
<td>• Media Server</td>
</tr>
<tr>
<td></td>
<td>• Media Gateway</td>
</tr>
<tr>
<td></td>
<td>• auxillary equipment</td>
</tr>
<tr>
<td></td>
<td>• Communication Manager</td>
</tr>
<tr>
<td></td>
<td>These logins and passwords include the customer’s equipment.</td>
</tr>
<tr>
<td>Obtain the serial number of the Media Servers, if necessary.</td>
<td>You need a new RFA license file and authentication file.</td>
</tr>
<tr>
<td></td>
<td>You need the serial number from the reference IPSI and the SAP order number</td>
</tr>
<tr>
<td></td>
<td>to generate a new license file.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
- service packs  
- license file  
- authentication file  
- firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out Electronic Preinstallation Worksheet (EPW)</td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

Pre-migration setup

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see Migration paths on page 390.

When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| About 2 weeks before the migration, freeze the translations.  
- Collect the translations locally via a spare flash card | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
STS updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician.  
Contact the STS scheduling desk at 720-444-9418 for forms and additional information. |
| About 2 business days prior to the migration, contact the STARS team by creating a trouble ticket. | Whenever an S8x00 media server is upgraded from 1.x.x to 2.x.x and a new RFA authentication file is requested, ASG access (remote and on-site) is impacted and assistance is needed by the Service Tools and Application Remote Support (STARS) team to ensure successful ASG access before and after the upgrade.  
Use [http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1](http://gsomissrv2.global.avaya.com/request_system/request.asp?tools_team=1) |
| Mark the ticket status as CRITICAL. | Indicate text in the ticket to let the STARS team know that you are upgrading an S8x00 media server. Include the date of the upgrade and the FL and product/alarm ID of the system.  
The STARS team will contact you on how to access your product before and after the upgrade. A temporary ASG product ID will be created for you and your team to use for access during the time of the upgrade. |
| Be sure that the on-site installer has access to the ASG Site Manager tool. | If you have an engineer working on the Avaya WAN, who will be supporting the on-site technician during the time of the upgrade, be sure that they have access to the ASG Mobile tool prior to the upgrade |
| The STARS team will provide the escalation path to report ASG troubles during the upgrade. | This happens at least one day prior to the migration. |
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Verify that you have the appropriate logins and passwords to access the media servers and server complex components. | When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer's media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response.

This unique craft password remains valid until it is changed by installing a new authentication file. |
| Copy the translation file from STS to a directory on the Services laptop. | Files normally are in the 1-4 megabytes range. |
| Verify the voice network, dial plan, and E911 for remote locales were redesigned. (if applicable) | |
| Verify that all existing circuit packs will work with the new system. | Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf). |
| Replace any TN799B/C C-LAN circuit packs. | Replace with the TN799DP circuit pack. |
| Replace 259A adapter and CAT3 cable. | Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable. |
| Replace TN570 EI circuit packs. | Replace with TN570B, vintage 7 or later circuit packs. |
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>Verify that you have the license file from RFA and that it includes the right to use (RTU) feature and applicable hardware parts in the existing system and any hardware being added as part of the migration.</td>
<td>Use the License File link on the Maintenance Web Interface to verify.</td>
</tr>
</tbody>
</table>
### Task

Verify that you have the Avaya authentication file from RFA.

Use the License File link on the Maintenance Web Interface to verify.

Replace the TN795 or TN2314 Processor circuit pack containing the Audix feature.

Replace with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.

---

### Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.

Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Start for Hardware Installation: Avaya S8500 Media Server (555-245-701)</td>
<td>A quick reference guide providing physical installation and connection information.</td>
</tr>
<tr>
<td>Installing and Configuring the Avaya S8500 Media Server (03-300143)</td>
<td>Provides installation instructions for the S8500 Media Server.</td>
</tr>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
</tr>
</tbody>
</table>
Migration tasks

This section assumes that the media server complex is installed, configured, and operational.

⚠️ **CAUTION:**

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor or tone clock circuit with an IPSI circuit pack
- Replacing the WP cables with twisted pair cables
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

You may reuse the translations from the existing switch when migrating to an S8500 Media Server.

**Note:**

The new license file should be installed on the media server before making the change.

Perform these tasks to change a processor port network to a port network (IP600).

**Pre-migration administration:**

- [Connecting to the processor](#) on page 399
- [Note node names and IP addresses](#) on page 400
- [Saving translations](#) on page 400
- [Note IP settings](#) on page 401

**Migration tasks:**

- [Accessing the media server](#) on page 401
- [Verifying license file](#) on page 402
- [Copying translation files to media server](#) on page 403
- [Restoring translation files](#) on page 404
- [Administering the IPSIs](#) on page 405
- [Backing up translations](#) on page 407
- [Verifying hardware](#) on page 408
- [Changing the IP600 control chassis to a port network](#) on page 409
Pre-migration administration

This is a service-affecting event. The IP600 chassis must be powered down to replace the processor. Before powering down the chassis, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

Note:

You need a crossover cable to connect your Services laptop directly to the processor.
1. Connect the Services laptop directly into the Avaya IP600 processor circuit pack
   ● If a TN795 Processor circuit pack, place the NIC card into the slot on the faceplate.
   ● If a TN2314 Processor circuit pack, plug the RJ45 connector directly into the RJ45 jack on the faceplate.
2. Start a terminal emulation application or Avaya Site Administration.
3. Log in as lucent3.

---

**Note node names and IP addresses**

To record node names and IP addresses, perform the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   Note:
   If the existing switch has a TN799C C-LAN circuit pack, you’ll need to replace it with a TN799DP circuit pack.

2. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press Enter to get the IP addresses that match the node names.

4. Write the information down for after the migration.

---

**Saving translations**

This step is important in case you need to back out of the migration. You may want to print out the translations for reference.

To save translations, perform the following step:

1. Type `save translation` and press Enter to save translations to the system disk.

   Either a Command successfully completed message displays or all error messages are logged.
Note IP settings

Note the IP settings assigned to the processor as they may be used for the Avaya S8500 Media Server. Verify against the filled-out Electronic Preinstallation Worksheet.

The following administration is done on the Services laptop connected to the processor circuit pack using telnet. To note the IP settings, perform the following steps:

1. Select Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter to access the Avaya IP600.
3. Log in as lucent3 to get to the LAC prompt.
4. Type bash and press Enter to start a BASH session.
5. Type setip and press Enter to display the current list of IP settings. You will see the following information:
   - cust: IPaddress, subnet mask, gateway
   - dns: server name, domain name, 2 DNS server IP addresses
   - wins: 2 WINS server IP addresses
   - ras: 1 remote access server IP address
6. Write down this information, exactly as it appears.

You must record this information exactly as it appears here. You cannot miss any periods, commas, or other punctuation marks. Record information in lower or upper case as it appears.

Migrating translations

This section provides information for migrating translation files from the existing switch to the S8500 Media Server.

Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
4. Log in as craft or dadmin.
5. When asked **Do you want to suppress alarms?**, select **yes**.

6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

---

**Verifying license file**

To verify the license file, perform the following steps:

1. Under Security, click **License File**.
2. Verify that the **CommunicaMgr License Mode**: field shows **Normal**.
Copying translation files to media server

To copy translation files to the media server, perform the following steps:

1. Under Miscellaneous, click **Download Files**.

2. Click **Browse** and select the file saved on the services laptop.

3. Click **Download** to place the file on the media server.
Restoring translation files

To restore translation files, perform the following steps:

1. Under Data Backup/Restore, click View/Restore Data.

2. Select Local Directory and click View. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.

4. Click Restore to restore the translation files.

5. Click Restore Status.

6. Select the first file, then scroll down and click Review Status to see the results of the restore.

   When done, the screen displays Restore is finished.

7. Open a SAT session using Native Configuration Manager or Avaya Site Administration.

8. Type reset system 4 and press Enter to load the restored translations.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.
Administering the IPSIs

To administer the IPSIs, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter

```
change system-parameters ipserver-interface
IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS

SERVER INFORMATION

   IPSI Host Name Prefix:  
   Primary Control Subnet Address: 172.22.0.0*
   Secondary Control Subnet Address: . . .

OPTIONS

   Switch Identifier: A
   IPSI Control of Port Networks: disabled

NOTE: * indicates data changed on the server
```

2. Verify that the **Primary Control Subnet Address** field is correct.

   The subnet address must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; Avaya Communication Manager does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** field is not correct, it must be changed on the media server. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks** field is set to **disabled**.

5. Press Enter to submit the form.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `add ipserver-interface 1` and press **Enter** to add the IPSI circuit pack information.

2. When using static addressing, in the **Host:** field, type in the IP address for the IPSI in the port network listed in the **Location:** field.

3. Verify that the **IP Control?** field is set to **y**.

4. Verify that all the other fields are populated.

5. Press **Enter** to effect the changes.

6. Repeat steps 1 through 5 for each IPSI.
Migration tasks

Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press `Enter`.

<table>
<thead>
<tr>
<th>change system-parameters</th>
<th>maintenance</th>
</tr>
</thead>
</table>

   MAINTENANCE-RELATED SYSTEM PARAMETERS

   OPERATIONS SUPPORT PARAMETERS
   CPE Alarm Activation Level: none

   SCHEDULED MAINTENANCE
   Start Time: 22 : 00
   Stop Time: 06 : 00
   Save Translation: daily
   Update LSPs When Saving Translations: y
   Command Time-out (hours): 2
   Control Channel Interchange: no
   System Clocks/IPSI Interchange: no

2. Select none (default), warning, minor, or major, depending on the level the customer wants.

Backing up translations

To back up translations, perform the following steps:

1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets and the backup method.
   
   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.
3. Click Start Backup to begin the backup process.

Migration tasks

Perform these tasks to change a processor port network to a port network (IP600).
Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 408 for a list of required hardware.

Table 8: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter—optional)</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td>1 or more</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>700234032</td>
<td>Migration kit (PEC code 63275):</td>
<td>1</td>
</tr>
<tr>
<td>700207111</td>
<td>– Upper circuit pack slot label</td>
<td>1</td>
</tr>
<tr>
<td>700181118</td>
<td>– Twisted pair I/O cables</td>
<td>10</td>
</tr>
<tr>
<td>106689516</td>
<td>TN771 Maintenance/Test circuit pack (optional)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108772583</td>
<td>TN2501AP Voice Announcement over LAN circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>ED-1E568-70G1 DEFINITY Audix Slim board (optional)</td>
<td>1</td>
</tr>
</tbody>
</table>
Note:
If customers currently are using the Audix feature on the S8100, they need to purchase a separate Audix system. The TN795 or TN2314 Processor circuit pack containing the Audix feature is being replaced with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.

Note:
Customers also need to add an ED-1E568-70G1 DEFINITY Audix Slim board and a TN2501AP Voice Announcement over LAN (VAL) circuit pack for announcements.

Changing the IP600 control chassis to a port network

To change the Avaya IP600 control chassis to a port network, you must:

● Replace the existing straight-wire WP cables, if present, with new twisted pair I/O cables.

● Replace the processor circuit pack with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.

● Connect a CAT5 straight-through cable from the IPSI to the media server through the customer’s network.

Note:
If replacing a TN795 Processor circuit pack, you may not need the TN744D/E Call Classifier-Detector circuit pack. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack has call classifier functionality; however, increased voice and data traffic may require the TN744D/E Call Classifier-Detector circuit pack.

Note:
If you have a TN799C or earlier C-LAN circuit pack, you must replace it with a TN799DP C-LAN circuit pack.

Note:
The new license file should be installed on the media server before making the conversion.
Powering down the control chassis

To power down the control chassis, perform the following steps:

⚠️ **CAUTION:**
Make sure you have done the pre-migration administration. See Pre-migration administration on page 399.

1. Press and hold the shutdown button on the processor’s faceplate until the shutdown process starts.

   Make sure you see the green light indicating the system has shut down before continuing.

⚠️ **DANGER:**
The latch on the power supply acts as the DC power switch and only removes DC power from the backplane, *not* the AC power. To remove the AC power from the chassis, pull the AC power cord from the back of the chassis.

2. Power down the chassis by unplugging the power cord from the back of the chassis.

Replacing I/O cables

On older MCC1, SCC1, and G600 media gateways (cabinets) you must replace the existing I/O cables (WP-90753, LI), which connect the backplane to the rear connector panel, with Twisted Pair I/O cables. Order the DEFINITY kit with Twisted Pair I/O cables under Comcode 700234032.

The existing I/O cables have straight, not twisted, wires. They may be mostly white with two red or multi-colored. If the cables have multi-colored, tightly twisted wires, no replacement is necessary.

⚠️ **CAUTION:**
Turn off power to the carrier or media gateway being serviced.

⚠️ **CAUTION:**
When adding or replacing any hardware and associated cables and adapters, be sure to ground yourself against electrostatic discharge (ESD) by wearing a grounded wrist strap.
To replace the existing I/O cables, perform the following steps:

1. If the customer has an MCC1 or SCC1 Media Gateway, move to step 2. If the customer has a G600 Media Gateway, perform the following step:

   You must remove the fan assembly to access the cables. Loosen the thumb screws on the fan assembly and pull it straight out as shown in G600 Media Gateway fan assembly removal on page 412. Leave the fan assembly off until all the wires are installed.

2. Note the orientation of the existing 10 cables. The existing I/O cables may be white and red or multicolored. They are not twisted.

3. Remove the existing I/O cables to be replaced from the backplane and the connector panel slots.

4. In their place install the Twisted Pair I/O cables onto the backplane, according to the proper orientation shown in Proper orientation for the Twisted Pair I/O cables on page 413. Observe the white outline printed on the backplane for the location of each connector.

5. When viewed from the "wiring" side of the twin connectors (that is, while plugging them into the backplane) and with the connectors oriented properly for plug-in, they should look like Proper orientation for the Twisted Pair I/O cables on page 413.

   The circled pin locations are “No-Connects”; that is, they have no wires in them. At the top there is an orange-black pair on the right and a violet-brown pair on the left.

   If you are replacing I/O cables for all slot positions, plug all cables into the backplane before matching each cable's "D" connector to the carrier frame.

   The 50-position metal shell "D" connectors should be installed into the carrier frame with the longer side of the "D" connector (pins 1–25) toward the right when viewed from the rear of the media gateway.

6. Apply the 10/100 mbps label to the front of the carrier slot, over the slot label that corresponds to the slot where you installed the Twisted Pair I/O cable.

7. For the G600 Media Gateway, replace the fan unit if no other media gateways are to be installed. If you are adding more media gateways to the rack, leave the fan units off until all of the TDM cables are installed.
Figure 1: G600 Media Gateway fan assembly removal
To replace the processor circuit pack, perform the following steps:

1. Remove the entire processor circuit pack and place it in an antistatic carrier or bag. You want it intact if you need to back out of the migration.

2. Remove the octopus cable from the connector associated with slot 2 on the backplane.

3. Install the IPSI adapter to the connector associated with slot 2 on the backplane.

4. Install the maintenance cable onto the 9-pin D-sub connector on the Adapter. This cable is for emergency transfer and "auxsig" signal.

**Note:**

The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes up only one slot.

5. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack into slot 2.

6. Attach the new label above the circuit pack slots.
Replacing the TN799C C-LAN circuit pack (if necessary)

To replace the TN799C C-LAN circuit pack, perform the following steps:

1. Remove the TN799C C-LAN circuit pack and place it in an antistatic carrier or bag.
2. Insert the new TN799DP C-LAN circuit pack into the same slot.
3. Replace the 259A adapter and CAT3 cable on the backplane with the Amphenol adapter used for the TN2302AP IP Media Processor circuit pack and a CAT5 cable.

Installing TN771 Maintenance/Test

Install a TN771 Maintenance/Test circuit pack in slot 1. There must be one TN771 Maintenance/Test circuit pack per location. Maintenance functions were present on the TN798 or TN2402 Processor circuit pack and must be replaced by the TN771. This carrier does not have a TN775 Maintenance (EPN) dedicated slot.

Connecting to the media server

Connect one end of the GREEN CAT5 straight-through cable to the Ethernet switch on the customer’s network and the other to the IPSI adapter on the back of the media gateway.

Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 19: Connecting directly to the IPSI.

Figure 19: Connecting directly to the IPSI

![Connecting directly to the IPSI diagram]

Figure notes:

1. Services laptop  
2. PCMCIA Network Interface Card (NIC)  
3. NIC adapter cable (if necessary)  
4. CAT5 crossover cable to IPSI

Note:
Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click Start > Run to open the Run dialog box.  
2. Type command and press Enter to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press Enter to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:

- The command line prompt when the cache has been cleared.
- The phrase: The specified entry was not found.

This is returned when the specified IP address does not currently appear in the ARP cache.

Logging into the IPSI

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press Enter to open the Telnet window and connect to the IPSI
   
   Prompt = [IPSI]:

   **Note:**
   
   While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press Enter (abbreviated command = `il`).

   **Note:**
   
   The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.
   
   Prompt = [IPADMIN]:

Setting the control interface

The following steps set the control interface.

1. Type `show control interface` and press Enter.

2. Type `show port 1` and press Enter to see the current settings.
3. Type `set control interface ipaddr netmask` and press **Enter**, where `ipaddr` is the customer-provided IP address and `netmask` is the customer provided subnet mask.

4. Enter **quit** to save the changes and exit the IPSI session.

5. Telnet to **192.11.13.6** and login.

6. Enter **show control interface**.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using
   `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided
   IP address for their gateway.

8. Enter **quit** to save the changes and exit the IPSI session.

9. Telnet to **192.11.13.6** and login.

10. Use **show control interface** to verify the administration.

11. Type **exit** and press **Enter** to see the changes.

### Setting the VLAN and diffserv parameters

The following steps sets the VLAN and diffserv parameters.

1. Log back in as **craft**.

2. Enter show qos to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**

Use **Help** to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

⚠️ **Important:**

Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

## Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press **Enter**

Answer **Y** to the warning.

**Note:**

Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

**Note:**

Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See **Figure 20: LED display showing that the IPSI has a static IP address**
Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.

Note:

Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See Clearing the ARP cache on page 415.

4. Repeat for each IPSI circuit pack.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click Ping.

2. Select IPSIs with cab number (1-99) ___ carrier number ___. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click Execute Ping.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), complete the following steps:

Note:
Make sure the IPSI has the current firmware.
CAUTION:  
This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type `change system-parameters ipserver-interface` and press Enter.

<table>
<thead>
<tr>
<th>change system-parameters ipserver-interface</th>
<th>Page 1 of 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS</td>
<td></td>
</tr>
<tr>
<td>SERVER INFORMATION</td>
<td></td>
</tr>
<tr>
<td>IPSI Host Name Prefix:</td>
<td></td>
</tr>
<tr>
<td>Primary Control Subnet Address: 172.22.0.0*</td>
<td></td>
</tr>
<tr>
<td>Secondary Control Subnet Address: . . .</td>
<td></td>
</tr>
<tr>
<td>OPTIONS</td>
<td></td>
</tr>
<tr>
<td>Switch Identifier: A</td>
<td></td>
</tr>
<tr>
<td>IPSI Control of Port Networks: enabled</td>
<td></td>
</tr>
</tbody>
</table>

   NOTE: * indicates data changed on the server

2. Set the **IPSI Control of Port Networks**: field to **enabled**
3. Press Enter to effect the change.
4. Type **save translation** and press Enter.

All the port networks are now controlled by the media server.

---

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the converted cabinets (chassis). Verify that the information is correct.
Verifying circuit pack locations

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press `Enter` to view all the "cabinets." Verify that the cabinet number assigned to the converted cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the converted cabinet, and press `Enter`. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the stack (SCC) or media gateways in the rack (G600 or G650).

Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press `Enter` to see the list of all the slot locations.

2. Verify that the circuit pack code and vintage number appears in the Code and Vintage fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press `Enter` to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.

2. Type `list node-names` and press `Enter` to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press `Enter`. Write down all enabled links.

2. Type `status link number` where `number` is 1-99 and press `Enter`.

3. Compare which links are in service with the pre-migration list.

4. Repeat steps 2 and 3 for all link numbers.
Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.

2. Verify the firmware release for the TN2313BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out previously busied out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.
Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Chapter 5: Migrating to an Avaya S8700 Series Media Server

This chapter covers migrating from an existing DEFINITY and Linux switch to the Avaya S8700 Series Media Server.

The most common migrations are from non-Linux-based (for example, DEFINITY ONE/S8100) switches to Linux-based media servers. Less common are migrations from one Linux-based media server to another. Not all non-Linux-based switches can migrate to a Linux-based media server. Whether a switch can be migrated depends on the supported migration path. A migration path refers to the platform and software release from which you can migrate to the new platform.

Migrating from existing DEFINITY and Linux platforms

These procedures are for migrating from existing DEFINITY and Linux platforms to the Avaya S8700 or S8710 Media Server configuration. The S8700 or S8710 Media Server can be either a Multi-Connect configuration or an IP-Connect configuration.

The existing switches that can migrate to an S8700 or S8710 are:

To a Multi-Connect configuration:
- DEFINITY Server R in a Multicarrier Cabinet (MCC)
- DEFINITY Server SI in a Single Carrier Cabinet (SCC) or Multicarrier Cabinet (MCC)

To an IP-Connect configuration:
- Avaya IP600 (S8100) in a G600 Media Gateway
- DEFINITY ONE (S8100) in a Compact Modular Cabinet (CMC)
- DEFINITY Server CSI in a CMC
- DEFINITY Server SI in an SCC or MCC

The existing Linux switches that can migrate to an S8700 or S8710 are:
- S8500
- S8700 IP-Connect
- S8700 Multi-Connect
Migration paths

For a list of DEFINITY switches and their releases that can be migrated to the S8700 or S8710 Multi-Connect configuration, see DEFINITY switch releases migratable to the S8700 or S8710 Multi-Connect configuration on page 426. For a list of DEFINITY switches that can be migrated to the S8700 or S8710 IP-Connect configuration, see Product releases migratable to the S8700 or S8710 IP-Connect configuration on page 427.

When migrating, in most cases, all the translations must be re-entered. However, when migrating from an S8100, the only supported method of moving translations is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Table 12: DEFINITY switch releases migratable to the S8700 or S8710 Multi-Connect configuration

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
<th>R</th>
<th>SI</th>
<th>S8500 to S8700</th>
<th>S8700 to S8710</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINITY Release G3V4</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release G3s/si (w/Intel 386)</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEFINITY Release 5</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 6</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 7</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 8</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 9</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 10</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>MV 1.1</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>MV 1.2</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>CM 1.3</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>CM 2.0</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CM 2.1</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

1 of 2
Table 12: DEFINITY switch releases migratable to the S8700 or S8710 Multi-Connect configuration (continued)

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
</tr>
<tr>
<td>CM 2.1.1</td>
<td>x</td>
</tr>
<tr>
<td>CM 2.2</td>
<td>x</td>
</tr>
<tr>
<td>CM 3.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 13: Product releases migratable to the S8700 or S8710 IP-Connect configuration

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
</tr>
<tr>
<td>DEFINITY Release G3V4</td>
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<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 7</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 8</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 9</td>
<td>x</td>
</tr>
<tr>
<td>DEFINITY Release 10</td>
<td>x</td>
</tr>
<tr>
<td>MV 1.1</td>
<td>x</td>
</tr>
<tr>
<td>MV 1.2</td>
<td>x</td>
</tr>
<tr>
<td>CM 1.3</td>
<td>x</td>
</tr>
<tr>
<td>CM 2.0</td>
<td></td>
</tr>
<tr>
<td>CM 2.1</td>
<td></td>
</tr>
</tbody>
</table>
Migrating to an Avaya S8700 Series Media Server

Table 13: Product releases migratable to the S8700 or S8710 IP-Connect configuration (continued)

<table>
<thead>
<tr>
<th>Software Release</th>
<th>Source Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
</tr>
<tr>
<td>CM 2.1.1</td>
<td>x</td>
</tr>
<tr>
<td>Cm 2.2</td>
<td>x</td>
</tr>
<tr>
<td>CM 3.0</td>
<td></td>
</tr>
</tbody>
</table>

2 of 2

Migrating hardware

This section assumes that the media server complex is installed, configured, and operational.

DEFINITY Server R or SI in an MCC

The migration process differs, depending on whether the migration is to an S8700 or S8710 Multi-Connect or IP-Connect configuration.

S8700 MC:

If all the port networks are connected through a CSS or ATM, Avaya recommends replacing the Tone Clocks with TN2312BP IPSI circuit packs in the processor port network (PPN) and expansion port networks (EPNs) first. The IPSIs are hot swappable.

If all the port networks are direct-connect, Avaya recommends that you install one IPSI in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to an EPN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event. The PPN must be powered down to replace the carrier. Before powering down the cabinet, you must do some pre-migration administration.
Migrating hardware

S8700 IP:

When migrating an existing DEFINITY Server SI Direct-Connect in an MCC to the S8700 or S8710 IP-Connect configuration, you use one TN2312BP IPSI circuit pack to control from 1 to 3 port networks (PNs). Avaya recommends that you install the IPSI in the A carrier in the existing processor port network (PPN) rather than in one of the expansion port networks (EPNs). But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event. The PPN must be powered down to replace the carrier.

DEFINITY Server SI in an SCC

The migration process differs, depending on whether the migration is to an S8700 or S8710 Multi-Connect or IP-Connect configuration.

S8700 MC

If all the PNs are connected through a CSS or ATM, Avaya recommends replacing the Tone Clocks with IPSI circuit packs in the PPN and EPNs first. The IPSIs are hot swappable.

If all the PNs are direct-connect, Avaya recommends that you install one IPSI in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to an EPN by replacing the processor control cabinet with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event. The PPN stack must be powered down to replace the cabinet. Before powering down the cabinets, you must do some pre-migration administration.

S8700 IP

This is a service-affecting event. The PNs must be powered down to move the circuit packs.

When migrating an existing DEFINITY Server SI Direct-Connect in an SCC, you use one TN2312BP IPSI circuit pack to control from 1 to 3 PNs. Avaya recommends that you install the IPSI in the cabinet in the A position in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to a PN by replacing the processor control cabinet with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event. The PPN stack must be powered down to replace the cabinet.
DEFINITY Server CSI or DEFINITY ONE/S8100 in a CMC

You can only migrate a DEFINITY Server CSI or DEFINITY ONE/S8100 in a Compact Modular Cabinet (CMC) to an Avaya S8700 or S8710 IP-Connect configuration.

When migrating an existing DEFINITY Server CSI or DEFINITY ONE in a CMC, you use one TN2312BP IPSI circuit pack to control the PN. If CSI, you replace the TN2182 Tone Clock circuit pack with the IPSI in the cabinet in the A position; you also remove the processor circuit pack. If DEFINITY ONE, you replace the processor circuit pack with the IPSI.

This is a service-affecting event. If CSI, the CMCs must be powered down to replace the Processor and Tone Clock. Before powering down the cabinets, you must do some pre-migration administration.

Avaya IP600S8100 in a G600

You can only migrate an Avaya IP600 to an Avaya S8700 or S8710 IP-Connect configuration.

When migrating an existing Avaya IP600, you use one TN2312BP IPSI circuit pack to control the PN. You replace the processor circuit pack with the IPSI in the cabinet in the A position.

This is a service-affecting event. The IP600 chassis must be powered down to replace the processor. Before powering down the chassis, you must do some pre-migration administration.

Pre-requisites for migrating to an S8700 Series Media Server

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- Tasks that must be performed before going on site.
- Tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
- Tasks that must be completed before going on site.
- Tasks that must be performed on site before beginning the migration.
- Documents Avaya recommends that you have on hand for the migration.
Before beginning the software migration and media server configuration, you need to complete the following tasks:

- Verify that the customer has a local area network set up and running and a network administrator available the date of the migration.
- Verify that you have the IP addresses and unique names for the media servers.
- Verify that you have a new license file and password file.
- Verify that you have the current translations available for download via ProVision.
- Verify that you have the current firmware available. Firmware for the IPSI, C-LAN, MedPro, and VAL circuit packs are on the software CD, but check the Avaya Support Web site (http://support.avaya.com), click Find Documentation and Downloads by Product Name, for the latest software and firmware.

Migration modules

This chapter describes the following types of migrations:

- Migrating a DEFINITY Server CSI in a CMC to an S8700 Series Media Server IP-Connect on page 433
- Migrating a DEFINITY Server R to an S8700 Series Media Server Multi-Connect on page 561
- Migrating a DEFINITY ONE/S8100 to an S8700 Series Media Server IP-Connect on page 615
- Migrating an Avaya IP600/S8100 to an S8700 Series Media Server IP-Connect on page 651
- Migrating an S8500 Media Server to an S8710 Media Server IP-Connect on page 689
- Migrating from an S8700 Media Server to an S8710 Media Server on page 705
Migrating to an Avaya S8700 Series Media Server
Migrating a DEFINITY Server CSI in a CMC to an S8700 Series Media Server IP-Connect

These procedures are for migrating from existing DEFINITY Server CSI in a Compact Modular Cabinet (CMC) switch to the Avaya S8700 or S8710 Media Server IP-Connect. You can only migrate a CSI in a CMC to an Avaya S8700 IP-Connect configuration.

When migrating an existing DEFINITY Server CSI in a CMC, you use one TN2312BP IPSI circuit pack to control the port network. You replace the TN2182 Tone Clock circuit pack with the IPSI in the cabinet in the A position. You also remove the processor circuit pack.

This is a service-affecting event.

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media servers and, if Avaya supplied, the Ethernet switch(es), and uninterruptible power supplies (UPSs) in the 4-post, 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703)
- Replace the Tone-Clock with the IPSI circuit pack
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media server
- Complete the post-migration administration
Migration paths

DEFINITY Server CSI in a CMC and their releases that can be migrated to the S8700 Media Server IP-Connect configurations include DEFINITY Release 5 - 10, MV 1.1, and release 2.0-3.0 of Communication Manager.

When migrating, in most cases, all the translations must be re-entered.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 435 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY system, complete the following additional tasks before beginning the migration:** on page 437 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY system.
- **Pre-site migration checklist** on page 441 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 442 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 443 - these are the documents Avaya recommends that you have on hand for the migration.
# Tasks checklists

## Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| ✓ Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
- 40 MB available disk space  
- direct Ethernet cable  
- serial cable and adapter  
- RS-232 port connector  
- Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
- 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
- CD-ROM drive |
| ✓ Verify that your Services laptop has the appropriate software. | Correct software components include:  
- Windows 2000/XP operating system  
- Terminal emulation program: HyperTerminal or other  
- TCP/IP networking software: bundled with Windows OS  
- Web browser: Internet Explorer 5.0 or later |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
- Media Server  
- Media Gateway  
- auxillary equipment  
- Communication Manager  
These logins and passwords include the customer’s equipment. |
| Obtain the serial number of the Media Servers, if necessary. | You need a new RFA license file and authentication file.  
You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration.</td>
</tr>
<tr>
<td>Verify that you have copied all necessary files to your computer</td>
<td>These files may include:</td>
</tr>
<tr>
<td></td>
<td>● service packs</td>
</tr>
<tr>
<td></td>
<td>● license file</td>
</tr>
<tr>
<td></td>
<td>● authentication file</td>
</tr>
<tr>
<td></td>
<td>● firmware for programmable circuit packs</td>
</tr>
</tbody>
</table>
Before you go on site for a migration from a DEFINITY system, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the project manager, software specialist, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

### Pre-migration setup

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see [Migration paths](#) on page 434.
When you are migrating from a DEFINITY system, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Find out which adapters and cables are reusable.</td>
</tr>
<tr>
<td></td>
<td>● C-LAN 259A adapter; must use adapter for IP Media Processor for 100 Mbps speed</td>
</tr>
<tr>
<td></td>
<td>● CAT3 cable used with C-LAN; must use CAT5 or better for 100 Mbps speed.</td>
</tr>
</tbody>
</table>

**CAUTION:**
The following 8 tasks must be done *before* freezing translations or saving translations to an MO disk that will be used to read translations directly into a media server.

**CAUTION:**
Be sure to do this step before freezing translations.

Verify that existing logins do not begin with a number or an asterisk (*).

Linux does not support logins that begin with a number or asterisk. Use Avaya Terminal Emulator or Avaya Site Administration to perform a `list logins` command.

**CAUTION:**
Be sure to do this step before freezing translations.

Verify that the functions of the TN577 Packet Gateway and TN726B Data Line circuit packs (BX.25 links and mode 2 data modules) were changed to work through the C-LAN circuit packs.

Note that the TN577 circuit pack cannot be reused.

Use Avaya Terminal Emulator or Avaya Site Administration to perform a `list node-names` command.
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAUTION:</strong></td>
<td>Be sure to do this step before freezing translations.</td>
</tr>
<tr>
<td>Verify that the peripherals (CMS, INTUITY) and Distributed Communication Service (DCS) links have been assigned node names and have an Ethernet address assigned.</td>
<td></td>
</tr>
<tr>
<td><strong>CAUTION:</strong></td>
<td>Be sure to do this step before freezing translations.</td>
</tr>
</tbody>
</table>
| Remove all Mode II Data Modules prior to changing to the S8700 Series Media Server. | The S8700 and S8710 do not support the following data modules:  
- System Ports  
- PDMs (7400/8400 Data Modules)  
- PktGateway  
- Pkt Data Dataline  
- Modem Pool  
- System CDR PDMs  
- System Features Printer PDMs |
| **CAUTION:** | Be sure to do this step before freezing translations. |
| The TN750 Announcement circuit packs are not supported in the S8700 Series Media Servers. | The announcements translations will come over to the S8700 Series Media Server; however, the circuit pack locations need to be changed to the TN2501AP Voice Announcement over LAN (VAL) circuit pack.  
**NOTE:**  
All announcement names must be unique on a TN2501AP Voice Announcement over LAN (VAL) circuit pack; the announcement names cannot contain any spaces/blanks or the following characters (/,:*?<>).  
Type `change announcements` to change any names and port locations.
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>You first may need to change the <strong>System Parameters Maintenance</strong> screen before you can make any changes to the <strong>IP Services</strong> screen. On the <strong>IP Services</strong> screen in the <strong>Service Type</strong> field, remove <strong>Alarm1</strong> and <strong>Alarm2</strong>.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>This indicates trunk group measurement reports are not required. Remember to re-measure trunk groups. Type <code>list trunk-group</code> to get a list of trunk groups that are &quot;measured&quot; and need to be changed. On the <strong>Trunk Group</strong> screen, change the <strong>Measured</strong> field from <strong>measured</strong> to <strong>none</strong>.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>If none, check the <strong>Attendant Console</strong> screens for any buttons with <strong>attd-qcalls</strong> or <strong>attd-qtime btns</strong>. Remove these if the 0 is not assigned as <strong>attd</strong>. Check the <strong>Dial Plan</strong> (or <strong>Dial Plan Analysis Table</strong> screen depending on the release) screen for 0 assigned as <strong>attd</strong>.</td>
</tr>
<tr>
<td>Replace any TN775/B/C maintenance circuit packs.</td>
<td>Replace with TN775D circuit packs in any EPNs that will have an IPSI.</td>
</tr>
<tr>
<td>About 2 weeks before the migration, freeze the translations.</td>
<td>Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations. STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. Verify that a copy of the existing translations exists so they can be re-entered later.</td>
</tr>
</tbody>
</table>

---

3 of 4
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 E1 circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded. See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>✓</td>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs. The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>✓</td>
<td>Verify that you have all necessary equipment onsite. See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY system, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured. Make sure that the screws that come with the rack are there (for installing in square holes or with adapters). Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>✓</td>
<td>Verify that cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs is labeled and that appropriate connectivity is provided. The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs runs from the control hardware rack to the port networks.</td>
</tr>
<tr>
<td>✓</td>
<td>Verify that you have the license file from RFA and that it includes the licensed features.</td>
</tr>
<tr>
<td>✓</td>
<td>Verify that you have the Avaya authentication file from RFA.</td>
</tr>
</tbody>
</table>
Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.

Additional documentation needed.

<table>
<thead>
<tr>
<th>✓</th>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
<td></td>
</tr>
<tr>
<td>Installing and Configuring an Avaya S8700 Series Media Server (03-300145)</td>
<td>Provides installation instructions for the S8700 and S8710 Media Servers.</td>
<td></td>
</tr>
<tr>
<td>Job Aid: Server and CSS Separation - Avaya S8700 Series Media Server (555-245-766)</td>
<td>Provides information on and connectivity diagrams when the S8700 or S8710 Media Servers are in separate locations.</td>
<td></td>
</tr>
</tbody>
</table>

### Migration tasks

This section assumes that the media server complex is installed, configured, and operational.

⚠️ **CAUTION:**

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor or tone clock circuit pack with an IPSI circuit pack
- Connecting the IPSI circuit pack to the Ethernet switch on the customer's network
- Assigning an IP address to the IPSI circuit pack
Perform these procedures to change a processor port network to a port network (CMC).

Pre-migration administration:

- Connecting to the processor on page 445
- Verifying system status on page 445
- Recording all busyouts on page 445
- Noting node names and IP addresses on page 446
- Saving translations on page 446

Migration tasks:

- Accessing the media server on page 447
- Checking system status on page 447
- Verifying license file on page 448
- Restoring data for a migration (S8710 only) on page 448
- Adding IPSI translations to Communication Manager on page 452
- Backing up translations on page 455
- Verifying hardware on page 456
- Changing the control cabinet to a port network on page 457
- Powering down the control cabinet on page 457
- Replacing the processor circuit pack on page 458
- Replacing the TN799C C-LAN circuit pack (if necessary) on page 458
- Installing TN771 Maintenance/Test on page 458
- Connecting to the media server on page 459

Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 459
- Verifying IPSI translations on page 464
- Verifying IPSI connectivity on page 465
- Enabling control of IPSI(s) on page 465
- Verifying customer’s data on page 466
- Upgrading firmware (if necessary) on page 467
- Testing the installation on page 467
- Busying out trunks on page 468
- Troubleshooting the migration on page 468
- Returning replaced equipment on page 468
Pre-migration administration

This is a service-affecting event. The CMCs must be powered down to replace the processor and tone clock. Before powering down the cabinets, you must do some premigration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

1. Use the computer used to access the cabinet.
2. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
3. Log in as craft.

Verifying system status

You want to check which groups are in or out of service before the migration and compare the list after the migration to make sure they are the same.

To verify system status, complete the following steps:

1. Execute the following commands to see whether the system has administration:
   a. list configuration all
   b. list trunk-group
   c. list hunt-group

   If any command does not complete successfully, escalate the problem immediately. After the conversion, check the same administration to be sure that the translations are intact.

Recording all busyouts

To record busyouts, complete the following steps:

1. Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.
Noting node names and IP addresses

Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

Note:
If the existing system has TN799C C-LAN circuit packs, you must replace them with TN799DP circuit packs.

To record node names and IP addresses, perform the following steps:
1. Type `display ip-interfaces` and press `Enter` to get the node names for the TN2302AP IP Media Processor and TN799C C-LAN circuit packs.
2. Type `list node-names` and press `Enter` to get the IP addresses that match the node names.
3. Write the information down for after the migration.

Saving translations

Note:
Save translations to a flash card.

Although the migration translations are already copied to the S8700 or S8710 Media Server, this step is important in case you need to back out of the migration.

To save translations, perform the following steps:
1. Type `save translation` and press `Enter` to save translations to the system disk.

   Either a Command successfully completed message displays or all error messages are logged.

Migrating translations

This section provides information for migrating translation files from the existing system to the S8700 Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the **Address** field, type `192.11.13.6` and press **Enter** to bring up the login Web page.
4. Log in as **craft** or **dadmin**.
5. When asked **Do you want to suppress alarms?**, select **yes**.
6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

Checking system status

To check the system status, perform the following steps:

1. Under Server, click **Status Summary**.
2. Verify the following information:
   - Duplication link between the S8700 or S8710 Media Servers is Up
   - Standby shadowing is On
   - Standby Refreshed is Yes
Verifying license file

To verify the license file, perform the following steps:

1. Under Security, click **License File**.
2. Verify that the **CommunicaMgr License Mode**: field shows **Normal**.

Restoring data for a migration (S8710 only)

The following procedure assumes the technician has already saved the customer's conversion files (sent from the Avaya STS team) on the technician's laptop.

Accessing the media server from your laptop

1. Connect a crossover cable to the Services port on the back of the media server.
2. Launch the Web browser.
3. Type **192.11.13.6** in the Address bar and press **Enter** to bring up the logon Web page.
4. Log in as **craft** or **dadmin**.
5. When asked **Do you want to suppress alarms?**, select **yes**.
6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

Verifying license file

1. Under Security, click **License File**.
2. Verify that the **MultiVantage License Mode**: field shows **Normal**.

Copying translation files to media server

1. Under Miscellaneous, click **Download Files**.
2. Click **Browse** and select the file saved on the Services laptop.

3. Click **Download** to place the file on the media server.
**Restoring translation files**

1. Under Data Backup/Restore, click **View/Restore Data**.

![View/Restore Data](image)

2. Select **Local Directory** and click **View**. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select **Force restore if server name mismatch** and **Force restore if backup version mismatch**.

4. Click **Restore** to restore the translation files.

5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

   When done, the screen displays **Restore is finished**.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

**Connecting to the standby media server**

**S8700 only**

1. Connect to the Services port on the back of the standby media server.

2. Launch a Web browser.

3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Pages**.
5. Under Server, click **Release Server**.
6. Click **Release**.

**Connecting to the active media server**

**S8700 only**

1. Connect to the Services port on the back of the active media server.

2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Interface**.
5. Under Server, click **Status Summary** to verify that the standby media server has been refreshed. Do not continue until the standby media server has been refreshed.
6. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
7. Login as **craft** or **dadmin**.

**Installing the translations**

1. Type `reset system 4` and press **Enter**.
2. Return the STS-supplied PCMCIA flash card to Avaya.

Go to **Adding IPSI translations to Communication Manager** on page 452 to add the IPSI translations before saving translations.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press `Enter`.

```
change system-parameters ipserver-interface

IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS

SERVER INFORMATION

    IPSI Host Name Prefix: 
    Primary Control Subnet Address: 172.22.0.0* 
    Secondary Control Subnet Address: 

OPTIONS

    Switch Identifier: A 
    IPSI Control of Port Networks: disabled

NOTE: * indicates data changed on the server
```

2. Verify that the **Primary Control Subnet Address** and **Secondary Control Subnet Address** (if equipped) fields are correct.

The subnet addresses must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; the Communication Manager call processing software does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

⚠️ **CAUTION:**

If the information displayed in the **Primary Control Subnet Address** and/or **Secondary Control Subnet Address** fields is not correct, it must be changed on the media servers. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks**: field is set to **disabled**.
5. Press **Enter** to submit the form.

*Note:* The information you provide differs, depending on whether the IPSIs get static addresses or they are assigned automatically through DHCP.

### Adding IPSI information

To add IPSI information, perform the following steps:

1. Type `add ipserver-interface PNnumber` where `PNnumber` is the port network number and press **Enter** to add the IPSI circuit pack information.

2. When using static addressing, in the **Host:** field, type in the IP address for the IPSI in the port network listed in the **Location:** field.

   **S8700 only**

   3. Verify the correct setting for the **IP Control?** field

      - If IPSIs are in IP-connected PNs, then set the **IP Control?** field to **y**.
      - If IPSIs are in fiber-connected PNs (CSS or ATM), then set the **IP Control?** field to **y**.
      - If IPSIs are in fiber-connected PNs (direct-connect), then set the **IP Control?** field to **y** unless there is more than 1 IPSI. Then set the **IP Control?** field for the second IPSI to **n**.
      - If an IPSI is in a DS1-C–remoted PN, then set the **IP Control?** field to **n** to maintain the 5:1 ratio of IPSIs to PNs. If the field is set to **y**, then the system decreases the ratio to 2:1.
4. Verify that all the other fields are populated.
5. Press **Enter** to effect the changes.
6. Repeat steps 1 through 5 for each port network.

### Setting IPSI duplication (high/critical reliability only)

To set IPSI duplication, perform the following steps:

1. Type `change system-parameters duplication` and press **Enter**

    ```
    change system-parameters duplication
    DUPLICATION RELATED SYSTEM PARAMETERS
    Enable Operation of IPSI Duplication? y
    ```

2. Set the **Enable Operation of IPSI Duplication?** field to **y**.
3. Press **Enter** to effect the changes.

### Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press **Enter**.

    ```
    change system-parameters maintenance
    MAINTENANCE-RELATED SYSTEM PARAMETERS
    OPERATIONS SUPPORT PARAMETERS
    CPE Alarm Activation Level: none
    SCHEDULED MAINTENANCE
    Start Time: 22 : 00
    Stop Time: 06 : 00
    Save Translation: daily
    Update LSPs When Saving Translations: y
    Command Time-out (hours): 2
    Control Channel Interchange: no
    System Clocks/IPSI Interchange: no
    ```

2. In the **CPE Alarm Activation Level** field, select **none** (default), **warning**, **minor**, or **major**, depending on the level the customer wants.
Backing up translations

To back up translations, perform the following steps:

1. S8710: Place a formatted flash card in the compact flash drive attached to a USB port.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages.
5. Under Data Backup/Restore, click Backup Now.
6. Select the data sets and the backup method.

   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.

7. Click Start Backup to begin the backup process.

Migration tasks

Perform these tasks to change a processor port network to a port network (CMC).

Note:

   If you want to make the system high reliability, then you cannot reuse the Compact Modular Cabinets (CMCs). You must install Avaya G650 Media Gateways and move all the circuit packs to the G650.

Note:

   The new license file should be installed on the media server before making the conversion.
Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 456 for a list of required hardware.

Table 9: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter—optional)</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td></td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or more</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2302AP IP Media Processor circuit pack or TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>106689516</td>
<td>TN771 Maintenance/Test circuit pack (optional)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108772583</td>
<td>TN2501AP Voice Announcement over LAN circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>ED-1E568-70G1 DEFINITY Audix Slim board (optional)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note:
The TN795 or TN2314 Processor circuit pack containing the Audix feature is being replaced with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.
Note:
Customers also need to add an ED-1E568-70G1 DEFINITY Audix Slim board and a TN2501AP Voice Announcement over LAN (VAL) circuit pack for announcements.

Changing the control cabinet to a port network

To change the control cabinet to a port network, you must:

- Remove the TN798 or TN2402 Processor circuit pack and replace the TN2182 Tone Clock circuit pack with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.
- Connect a CAT5 straight-through cable from the IPSI to the media server through the customer’s network.

Note:
If replacing a TN795 Processor circuit pack, you may not need the TN744D/E Call Classifier-Detector circuit pack. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack has call classifier functionality; however, increased voice and data traffic may require the TN744D/E Call Classifier-Detector circuit pack.

Note:
If you have a TN799C or earlier C-LAN circuit pack, you must replace it with a TN799DP C-LAN circuit pack.

Powering down the control cabinet

⚠️ CAUTION:
Make sure you have done the pre-migration administration. See Pre-migration administration on page 445.

To power down the control cabinet, perform the following steps:

1. Press and hold the shutdown button on the processor’s faceplate until the shutdown process starts.

Make sure you see the green light indicating the system has shut down before continuing.

⚠️ DANGER:
The latch on the power supply acts as the DC power switch and only removes DC power from the backplane, not the AC power. To remove the AC power from the cabinet, pull the AC power cord from the back of the cabinet.

2. Power down the cabinet by unplugging the power cord from the back of the cabinet.
Replacing the processor circuit pack

To replace the processor circuit pack, perform the following steps:

1. Remove the entire processor circuit pack and place it in an antistatic carrier or bag. You want it intact if you need to back out of the migration.
2. Remove the TN2182 Tone Clock circuit pack.
3. Remove the octopus cable from the connector associated with slot 2 on the connector panel.
4. Install the IPSI adapter to the connector associated with slot 2 on the connector panel.
5. Install the maintenance cable onto the 9-pin D-sub connector on the Adapter. This cable is for emergency transfer and "auxsig" signal.

Note:
The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes up only one slot.
6. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack into slot 2.
7. Attach the new label above the circuit pack slots.

Replacing the TN799C C-LAN circuit pack (if necessary)

To replace the TN799C C-LAN circuit pack, perform the following steps:

1. Remove the TN799C Control-LAN (C-LAN) circuit pack and place it in an antistatic carrier or bag.
2. Insert the new TN799DP C-LAN circuit pack into the same slot.
3. Replace the 259A adapter and CAT3 cable on the connector panel with the Amphenol adapter used for the TN2302AP IP Media Processor circuit pack and a CAT5 cable.

Installing TN771 Maintenance/Test

Install a TN771 Maintenance/Test circuit pack in slot 1. There must be one TN771 Maintenance/Test circuit pack per location. Maintenance functions were present on the TN798 or TN2402 Processor circuit pack and must be replaced by the TN771. This carrier does not have a TN775 Maintenance (EPN) dedicated slot.

If the cabinet does not have a TN2302AP IP Media Processor (CSI did not require it), then you must install one in slot 10. See the *Adding New Hardware* book, Install and Administer IP Connectivity Hardware section.
Connecting to the media server

Connect one end of the GREEN CAT5 straight-through cable to the Ethernet switch on the customer’s network and the other to the IPSI adapter on the back of the media gateway.

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 21: Connecting directly to the IPSI.

Figure 21: Connecting directly to the IPSI

![Diagram of connecting to IPSI](image)

**Figure notes:**

1. Services laptop
2. PCMCIA Network Interface Card (NIC)
3. NIC adapter cable (if necessary)
4. CAT5 crossover cable to IPSI

**Note:**

Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click **Start > Run** to open the Run dialog box.
2. Type `command` and press **Enter** to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:

- The command line prompt when the cache has been cleared.
- The phrase: **The specified entry was not found.**

This is returned when the specified IP address does not currently appear in the ARP cache.

**Logging into the IPSI**

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press **Enter** to open the Telnet window and connect to the IPSI.
   
   Prompt = [IPSI]:

   **Note:**
   
   While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press **Enter** (abbreviated command = `il`).

   **Note:**
   
   The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.
   
   Prompt = [IPADMIN]:

**Setting the control interface**

The following steps set the control interface.

1. Type `show control interface` and press **Enter**.

2. Type `show port 1` and press **Enter** to see the current settings.
3. Type `set control interface ipaddr netmask` and press **Enter**, where *ipaddr* is the customer-provided IP address and *netmask* is the customer provided subnet mask.

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to **192.11.13.6** and login.

6. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr`, where *gatewayaddr* is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to **192.11.13.6** and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press **Enter** to see the changes.

---

**Setting the VLAN and diffserv parameters**

The following steps sets the VLAN and diffserv parameters.

1. Log back in as **craft**.

2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

   **Note:**
   Use **Help** to obtain syntax guidelines for these commands.
   - Enter `set vlan priority 6`
   - Enter `set diffserv 46`
   - Enter `set vlan tag on`
   - Enter `set port negotiation 1 disable`
   - Enter `set port duplex 1 full`
   - Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

   **Important:**
   Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

### Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press **Enter**
   Answer **Y** to the warning.

   **Note:**
   Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

   **Note:**
   Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See **Figure 22: LED display showing that the IPSI has a static IP address**
Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.

2. Verify that the ISPI circuit pack(s) is translated.

Note:
Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See [Clearing the ARP cache](#) on page 460.

4. Repeat for each IPSI circuit pack.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click **Ping**.

   ![Ping](image)

   The Ping Web page provides useful network debugging. Use the host name or the IP address and execute a Ping command to determine whether a specific network address is valid, and obtain information about processing data packets and diagnostics to troubleshoot problems.

   **Endpoints to Ping**
   - Host Name Or IP address
   - IPSIs with cab number (1–99) __ carrier number __
   - UPS endpoints.
   - Other server(s), All IPSIs, UPS(s), Ethernet switches.
   - Other server via duplication link.
   - Ethernet switch endpoints.

   **Options**
   - Do not look up symbolic names for host addresses.
   - Bypass normal routing tables and send directly to a host.

   ![Execute Ping](image)

2. Select **IPSIs with cab number (1–99) ____ carrier number ____**. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click **Execute Ping**.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

**Note:**

Make sure the IPSI(s) have the same, current firmware.

**CAUTION:**

This is the step that allows the media server to take control of the IPSI-controlled port network(s).
Migrating a DEFINITY Server CSI in a CMC to an S8700 Series Media Server IP-Connect

1. Type `change system-parameters ipserver-interface` and press Enter.
2. Set the **IPSI Control of Port Networks:** field to **enabled**
3. Press Enter to effect the change.
4. Type `save translation` and press Enter.

All the port networks are now controlled by the media server.

---

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the changed cabinets (chassis). Verify that the information is correct.

**Verifying circuit pack locations**

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the changed cabinets shows.
2. Type `display cabinet number`, where `number` is the cabinet number of the changed cabinet, and press Enter. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the stack.

**Verifying circuit pack insertion**

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press Enter to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the **Code** and **Vintage** fields rather than "no board", indicating that a circuit pack was not installed in that slot.

**Verifying IP addresses**

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press Enter to verify that the node names exist and the IP addresses match up with the node names.
Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press Enter. Write down all enabled links.
2. Type `status link number` where `number` is 1-99 and press Enter.
3. Compare which links are in service with the premigration list.
4. Repeat steps 2 and 3 for all link numbers.

Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.
2. Verify the firmware release for the TN2312BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the media server configuration which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.
Busying out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you've determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating from a DEFINITY Server SI in an SCC to an S8700 Series Media Server Multi-Connect

These procedures are for migrating from existing a DEFINITY Server SI in an SCC to the Avaya S8700 or S8710 Media Server Multi-Connect configuration.

But before installing the IPSI, you must convert the PPN to an EPN by replacing the processor control carrier with an expansion control cabinet and removing all the control circuit packs.

This is a service-affecting event.

Basic migration steps

Note:

When this migration is complete, the terms EPN and port network (PN) can be used synonymously.

When migrating from DEFINITY platforms:

- Install the media servers and, if Avaya supplied, the Ethernet switch(es), and uninterruptible power supplies (UPSs) in the 4-post, 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Servers (555-245-703)
- Replace the Tone Clock with the IPSI circuit pack
- If high or critical reliability, replace the second control carrier/cabinet with a port carrier/cabinet (when reusing SCCs)
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media servers
- Install new RFA license file and authentication file
- Complete the post-migration administration
Migration paths

DEFINITY Server SI in an SCC and their releases that can be migrated to the S8700 or S8710 Media Server Multi-Connect configurations include DEFINITY Release G3V4, Release G3s/si (w/Intel 386), Release 5 - 10, MV Release 1.1 and 1.2, and release 1.3 - 2.2 of Communication Manager.

When migrating, you can use the existing translations. You must freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation files by email along with translation reports and documentation on how to save the them to the Services laptop and restore them to the S8700 Series. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 471 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration** on page 473 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY system.
- **Pre-site migration checklist** on page 475 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 475 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 476 - these are the documents Avaya recommends that you have on hand for the migration.
# Tasks checklists

## Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| ✓ Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
  - 40 MB available disk space  
  - direct Ethernet cable  
  - serial cable and adapter  
  - RS-232 port connector  
  - Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  - 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  - CD-ROM drive |
| ✓ Verify that your Services laptop has the appropriate software. | Correct software components include:  
  - Windows 2000/XP operating system  
  - Terminal emulation program: HyperTerminal or other  
  - TCP/IP networking software: bundled with Windows OS  
  - Web browser: Internet Explorer 5.0 or later |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
  - Media Server  
  - Media Gateway  
  - auxillary equipment  
  - Communication Manager  
  These logins and passwords include the customer’s equipment. |
| Obtain the serial number of the Media Servers, if necessary. | You need a new RFA license file and authentication file.  
  You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer                                                   | These files may include:  
  ● service packs  
  ● license file  
  ● authentication file  
  ● firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the project manager, software specialist, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see *Migration paths* on page 470.
When you are migrating from a DEFINITY system, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find out which adapters and cables are reusable.</td>
<td>The following items are <em>not</em> reusable:</td>
</tr>
<tr>
<td></td>
<td>● 982LS Current Limiter (CURL) for an SI; must replace with larger CFY1B CURL</td>
</tr>
<tr>
<td></td>
<td>● C-LAN 259A adapter; must use adapter for IP Media Processor for 100 Mbps speed</td>
</tr>
<tr>
<td></td>
<td>● CAT3 cable used with C-LAN; must use CAT5 or better for 100 Mbps speed.</td>
</tr>
<tr>
<td>Replace any TN775/B/C maintenance circuit packs.</td>
<td>Replace with TN775D circuit packs in any EPNs that will have an IPSI.</td>
</tr>
<tr>
<td>About 2 weeks before the migration, freeze the translations.</td>
<td>Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations. STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. Verify that a copy of the existing translations exists so they can be re-entered later.</td>
</tr>
<tr>
<td></td>
<td>Collect the translations locally via a spare flash card.</td>
</tr>
<tr>
<td>Verify that you have the appropriate logins and passwords to access the media servers and server complex components.</td>
<td>When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer's media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response. This unique craft password remains valid until it is changed by installing a new authentication file.</td>
</tr>
<tr>
<td>Copy the translation file from STS to a directory on the Services laptop.</td>
<td>Files normally are in the 1-4 megabytes range.</td>
</tr>
</tbody>
</table>
### Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned. (if applicable)</td>
</tr>
<tr>
<td>✓</td>
<td>Verify that all existing circuit packs will work with the new system. Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/ minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>✓</td>
<td>Replace any TN799B/C C-LAN circuit packs. Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>✓</td>
<td>Replace 259A adapter and CAT3 cable. Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>✓</td>
<td>Replace the TN776 and TN570 EI circuit packs. Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>

### On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded. See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
</tbody>
</table>

1 of 2
When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there (for installing in square holes or with adapters). Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>Verify that cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs is labeled and that appropriate connectivity is provided.</td>
<td>The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs runs from the control hardware rack to the port networks.</td>
</tr>
<tr>
<td>Verify that you have the license file from RFA and that it includes the licensed features.</td>
<td></td>
</tr>
<tr>
<td>Verify that you have the Avaya authentication file from RFA.</td>
<td></td>
</tr>
<tr>
<td>Verify that you have the required tools on site.</td>
<td>For the Magneto Optical Server Tool, see Migrating translations on page 500.</td>
</tr>
</tbody>
</table>

### Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.
Migration tasks

This section assumes that the media server complex is installed, configured, and operational. This section covers changing an existing Processor Port Network (PPN) to a Port Network (PN) for each type of cabinet.

CAUTION:
This procedure is service-affecting. When the PPN is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor control carrier/cabinet with an expansion control carrier/cabinet
- Replacing the tone clock and maintenance circuit packs with an IP Server Interface (IPSI) and new maintenance circuit packs
- Replacing old expansion interface circuit packs with new ones, if necessary
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack
Note: The new license file should be installed on the media server before making the change.

Perform these tasks to convert a processor port network to a port network (SCC).

Pre-migration administration:

- Connecting to the processor on page 479
- Verifying system status on page 479
- Recording all busyouts on page 480
- Note node names and IP addresses on page 480
- Saving translations on page 480
- Upgrading and administering the existing hardware on page 481
- Connecting media server and IPSI cables to Ethernet switch(es) on page 481
- Upgrading hardware in each port network on page 482
- Duplex reliability configuration on page 483
- High or critical reliability configuration on page 486
- Connecting the CAT5 cables to the IPSI circuit packs on page 494
- Installing Expansion Interface circuit packs on page 500
- Completing circuit pack replacement on page 500

Migration tasks:

- Accessing the media server on page 500
- Checking system status on page 501
- Verifying license file on page 502
- Restoring data for a migration on page 502
- Adding IPSI translations to Communication Manager on page 504
- Backing up translations on page 507
- Verifying hardware on page 508
- Removing the processor port network control cabinet on page 509
- Installing the expansion control media gateway on page 510
- Stacking the port media gateways on page 510
- Installing IPSI and maintenance circuit packs on page 511
- Installing Expansion Interface circuit packs on page 511
- Powering up the media gateway(s) on page 511
Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 512
- Verifying IPSI translations on page 514
- Verifying IPSI connectivity on page 514
- Enabling control of IPSI(s) on page 515
- Verifying customer’s data on page 515
- Upgrading firmware (if necessary) on page 517
- Testing the installation on page 517
- Busying out trunks on page 517
- Troubleshooting the migration on page 517
- Returning replaced equipment on page 518

---

Pre-migration administration

Connecting to the processor

To connect to the SI processor, perform the following steps:

1. Use the computer used to access the cabinet.
2. Open a SAT session using Avaya Site Administration.
3. Log in as craft.

Verifying system status

You want to check which groups are in or out of service before the migration and compare the list after the migration to make sure they are the same.

To verify system status, perform the following steps:

1. Execute the following commands to see whether the system has administration:
   
   a. list configuration all
   b. list trunk-group
   c. list hunt-group
If any command does not complete successfully, escalate the problem immediately. After the conversion, check the same administration to be sure that the translations are intact.

---

### Recording all busyouts

To record busyouts, perform the following steps:

1. Type `display errors` and press **Enter**. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.

### Note node names and IP addresses

To record node names and IP addresses:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   **Note:**
   
   If the existing system has TN799C C-LAN circuit packs, you must replace them with TN799DP circuit packs.

To record node names and IP addresses, complete the following steps:

1. Type `display ip-interfaces` and press **Enter** to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

2. Type `list node-names` and press **Enter** to get the IP addresses that match the node names.

3. Write the information down for after the migration.

---

### Saving translations

Although the migrated translations are already copied to the S8700 Series Media Server, this step is important in case you need to back out of the migration.

**Note:**

Save translations to a flash card.

To save translations, perform the following step:

1. Type `save translation` and press **Enter** to save translations to the flash card.

   Either a Command successfully completed message displays or all error messages are logged.
Upgrading and administering the existing hardware

This section covers upgrading and administering existing port networks (PNs) in preparation for migrating to the S8700 or S8710 Multi-Connect configuration for single carrier cabinets (SCCs). This consists of:

- Placing the CAT5 cables between the Ethernet switches and PNs
- Changing out expansion interface circuit packs (if necessary)
- Changing out tone clocks and maintenance boards for IP Server Interfaces (IPSI) and new maintenance boards
- Connecting the IPSI boards to the Ethernet Switches.
- Assigning IDs or static IP addresses to the IPSI boards

This can all be done while the existing system is in service. However, with duplex reliability configurations, short service interruptions are encountered as the tone clock is changed out in IPSI-controlled PNs.

**Note:**

If you are installing IPSIs in the existing PPN, you must move all the new circuit packs to the new carrier (cabinet) during the PPN conversion.

This section assumes that the S8700 or S8710 Media Servers have the latest software release, the media server complex is installed, configured, and operational.

This section covers the following tasks:

- [Connecting media server and IPSI cables to Ethernet switch(es)](page 481)
- [Upgrading hardware in each port network](page 482)
- [Installing Expansion Interface circuit packs](page 500)
- [Post-migration administration](page 512)

---

Connecting media server and IPSI cables to Ethernet switch(es)

See *Quick Start for Hardware Installation: Avaya S8700 Series Media Server* (555-245-703) for a connectivity guide.

Each TN2312BP IP Server Interface (IPSI) circuit pack must have a CAT5 Ethernet cable back to the Ethernet switch. Cables for IPSIs located in PN carrier A are GREEN. Cables for IPSIs located in PN carrier B (high or critical reliability) are RED.

Each media server is connected to the Ethernet switch(es) that comprise Control Network A (CNA) in duplex configurations (GREEN cable).

Each media server is connected to the Ethernet switch(es) that comprise Control Network B (CNB) in high and critical reliability configurations (RED cable).
Upgrading hardware in each port network

In IPSI-controlled PNs you must replace the existing tone-clock and maintenance circuit packs with a TN2312BP IPSI circuit pack and TN775D or later maintenance circuit pack. You must also replace TN570 (R) Expansion Interface circuit packs with TN570B, vintage 7, or later circuit packs.

- Replacing tone clocks with IPSI circuit packs and replace maintenance circuit packs on page 482
- Assigning IP addresses to the IPSI circuit packs on page 512
- Completing circuit pack replacement on page 500

Replacing tone clocks with IPSI circuit packs and replace maintenance circuit packs

Note:
Before beginning, read this procedure and Assigning IP addresses to the IPSI circuit packs on page 512 to familiarize yourself with them. If using DHCP server, setting the Switch ID and Cabinet number on the IPSI circuit pack can be done at initial installation. However, there are certain sequences that need to be completed prior to a predetermined time-out interval. If the Switch ID and Cabinet number are not set when the circuit pack is first plugged in it can be done later but it will require that the circuit pack be reseated. This could result in an additional service interruption in a duplex reliability configurations.

Determining IPSI placement in port networks

Determine which PNs get the IPSI circuit packs. Not all PNs require them. Port networks that do not house an IPSI have an Expansion Interface (EI) circuit pack that controls the PN. These EI-controlled PNs are assigned automatically to an IPSI at system initialization. The balancing of EI-controlled PNs amongst available IPSIs is also done automatically.

Also, with Release 2.0 or later of Communication Manager, you are allowed to put an IPSI in a DS1-C-remoted port network.

The following are the rules and guidelines for placement of IPSI circuit packs.
Rules:

- When placing an IPSI in a DS1-C-remoted port network, make sure that the non-remoted IPSI is administered first and that the IP Control field is set to y. The IPSI in the DS1-C-remoted PN does not have to be set to no. However, if it is set to y, customers need to run Ethernet from the IPSI and there is limited control (1:2 versus 1:5).

- The reference IPSI (the one whose serial number is used in the license file) is placed in the PN with the shortest Ethernet connection to the media servers. This minimizes the amount of data network that could fail between the IPSI and the media servers causing the system to switch to No License mode.

- The minimum number of port networks that require an IPSI is determined by the following formulas:

  - Duplex (Direct Connect): 1 IPSI controls up to 3 PNs. If 1 or 2 PNs and if a G650 media gateway PN is added, it may have an IPSI too. If 2 IPSIs are used, the IP control for 1 is yes and the other is no.
  - Duplex (CSS or ATM): Total Number of PNs divided by 5 (if not an integer, round up), plus one.
  - High/Critical: Total Number of PNs divided by 5 (if not an integer, round up). For each IPSI-connected PN, you need 2 IPSIs.

Guidelines:

- On large configurations that contain multiple switch node carriers, IPSIs should be placed as evenly as possible among the switch nodes. Use the list fiber all command to determine which port networks are connected to which switch node.

---

**Duplex reliability configuration**

To set up a duplex configuration, perform the following steps:

⚠️ **WARNING:**

The following procedure affects service when the circuit packs are being switched out. Coordinate this activity with the customer to minimize disruption of customer activities.

**Note:**

You can replace the maintenance circuit pack with the TN775D Maintenance (EPN) (if necessary) and the TN2182 Tone Clock circuit packs with the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs and program them ahead of time. All the circuit packs being replaced are hot-swappable, so you do not need to power down the PNs or the carrier.
1. Type `status system all` and press Enter to determine which PNs have TN2182 Tone Clock circuit packs, which cabinets they are in, which is active, and which is standby.

2. In cabinets receiving an IPSI circuit pack, remove the TN2182 Tone Clock circuit pack from the expansion control carrier and place it in an antistatic carrier.

   **Note:**
   If present, do not remove the TN771 Maintenance/Test circuit pack.

3. Remove the TN775B/C Maintenance (EPN) circuit pack from the expansion control carrier and place it in an antistatic carrier.

4. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot.

5. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the TN 2312BP circuit pack. See Ribbon Cable Connector on page 484.

6. Push the tabs on the ends of the connector inward to lock the connector in place.

7. Thread the ribbon through the slot on the front panel. See Duplex Reliability Ribbon Cable Connection on page 485. (Standard reliability is referred to as duplex reliability in the S8700 or S8710 Multi-Connect configuration because of the two media servers.)

8. Insert the TN775D maintenance circuit pack part way into the MAINTENANCE slot.

9. Attach the other end of the short ribbon cable to the top connector on the component side of the TN775D circuit pack (red line on the bottom). See Duplex Reliability Ribbon Cable Connection on page 485.
10. Push the tabs on the ends of the connector inward to lock the connector in place.

11. Thread the ribbon through the slot on the front panel.

12. Fully insert the circuit packs.

13. Program the TN2312BP just inserted. See Assigning IP addresses to the IPSI circuit packs on page 512.
High or critical reliability configuration

To set up a high or critical reliability configuration, perform the following steps:

**Note:**
You can replace the tone-clocks with the IPSI circuit packs and administer them ahead of time. The circuit packs are hot-swappable, so you do not need to power down the PNs or the carriers.

1. Determine which PNs get the IPSI circuit packs. See [Determining IPSI placement in port networks](#) on page 482.

**Note:**
Not every port network requires an IPSI circuit pack.

2. Type `status system all` and press **Enter** to determine which port networks have TN2182 Tone Clock circuit packs, which media gateway they are in, which is active, and which is standby.

3. If needed, type `set tone-clock cabinet carrier` and press **Enter** to make the tone clock in the B carrier active.

4. Remove the ground plate, upper and lower rear covers from the media gateway(s). See [Removing ground plate and upper and lower rear covers](#) on page 487.
5. If they are not already present, insert the TN2312BP Internet Protocol Server Interface (IPSI) and TN775D Maintenance (EPN) circuit packs part way into their respective slots (Tone/Clock and Maintenance). If they are already present, unseat and pull them partway out.

6. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.

7. Push the tabs on the ends of the connector inward to lock the connector in place. See Ribbon Cable Connector on page 488.

Figure 25: Removing ground plate and upper and lower rear covers

Figure notes:
1. Media Gateway B  4. Ground plate
2. Media Gateway A  5. Lower rear cover
3. Upper rear cover
8. Thread the ribbon through the slot on the front panel.

9. Attach the other end of the short ribbon cable to the top connector on the component side of the TN775D Maintenance (EPN) circuit pack (red line on the bottom). See Figure 27: Duplex Ribbon Cable Connection on page 489.
10. Push the tabs on the ends of the connector inward to lock the connector in place.

11. Thread the ribbon through the lower slot on the faceplate of the TN775D Maintenance (EPN) circuit pack.

12. For high or critical reliability configuration use the pass through tool to feed the long ribbon cable through media gateway A. See Figure 28: Ribbon cable placement using the pass through tool on page 490.
13. Plug the long ribbon cable into the bottom connector on the component side of the TN775D Maintenance (EPN) circuit pack. (red line on bottom). See Figure 29: High/Critical Ribbon Cable Connection on page 491.

14. Push the tabs on the ends of the connector inward to lock the connector in place.

15. Thread the ribbon cable through the remaining slot on the faceplate of the TN775D Maintenance (EPN) circuit pack.

16. Route the cable through the TDM slot in the back of the SCC1 media gateway A and up to SCC1 media gateway B. See Cable routing through the TDM slot on page 492.
Figure 29: High/Critical Ribbon Cable Connection
17. Use the pass through tool to feed the long ribbon cable through media gateway B.

18. If not already present, insert a TN2312BP Internet Protocol Server Interface (IPSI) part way into the tone clock slot of media gateway B.

19. Connect the long ribbon cable to the connector on the component side of the TN2312BP Internet Protocol Server Interface (IPSI) in media gateway A (red line on bottom). See Figure 29: High/Critical Ribbon Cable Connection on page 491.

20. Fully insert the TN775D Maintenance (EPN) and TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.
21. If both ribbon and CAT5 cables have been installed, replace rear covers and ground plates (see Figure 31: Replace rear covers and ground plates on page 493).

If CAT5 cables need to be installed, leave the rear covers and ground plates off and go to Connecting the CAT5 cables to the IPSI circuit packs on page 494.

Figure 31: Replace rear covers and ground plates

Figure notes:

1. Media Gateway B
2. Media Gateway A
3. Ground plate covering TDM cable opening. Note: All cables running between or exiting media gateways use the opening provided for TDM cables.
Connecting the CAT5 cables to the IPSI circuit packs

See Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703) for a connectivity guide.

To connect the CAT5 cables to the IPSI circuit packs, perform the following steps:

1. If not already removed, remove the ground plate. Remove the upper and lower rear covers from the media gateway(s). See Figure 32: Removal of ground plate on page 495.
Figure 32: Removal of ground plate

Figure notes:

1. Media Gateway B
2. Media Gateway A
3. Upper rear cover
4. Ground plate
5. Lower rear cover

2. Run the 25- or 50-m GREEN CAT5 cable from the Ethernet switch through the media gateway, using a cable pass-thru kit. See Figure 33: CAT5 cable in pass-thru kit on page 496.
3. Install the clamp on ferrite on the CAT5 Ethernet cable. See Figure 34: CAT5 cable run through the clamp-on ferrite on page 497.

⚠️ WARNING:

The ferrite must be located as close to the exit of the media gateway as possible.
Upgrading and administering the existing hardware

Figure 34: CAT5 cable run through the clamp-on ferrite

WARNING: The ferrite must be located as close to the exit of the media gateway as possible.

4. Connect the GREEN CAT5 cable to the bottom connector on the front of the TN2312 IPSI circuit pack in media gateway A. See Figure 35: CAT5 cable connected to the IPSI.

5. Replace the rear covers and the ground plate. Dress the CAT5 Ethernet cable to exit either the left or right side of the media gateway. See Figure 36: Replacement of the rear covers and the ground plate on page 499.
6. For high or critical reliability, repeat steps 1 through 5 for the IPSI circuit pack in media gateway B using a red CAT5 Ethernet cable.

Figure 35: CAT5 cable connected to the IPSI
Figure 36: Replacement of the rear covers and the ground plate

Figure notes:

1. Ground Plate
Installing Expansion Interface circuit packs

To install the Expansion Interface circuit packs, perform the following steps:

**Note:**
If the existing PPN has TN776 or TN570 Expansion Interface circuit packs, you must replace them with a TN570B Expansion Interface, vintage 7, or later circuit pack.

If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN776 or TN570 Expansion Interface circuit packs with a TN570D or later Expansion Interface circuit pack.

1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570B Expansion Interface, vintage 7, or later EI circuit pack into the EXPN INTFC slots (01, 02).
3. Repeat steps 1 and 2 for each PN that does not have TN570B Expansion Interface, vintage 7, or later EI circuit packs.

Completing circuit pack replacement

For standard (duplex) reliability configurations repeat Duplex reliability configuration on page 483 for each port network that will receive a TN2312BP.

For high and critical reliability configurations repeat High or critical reliability configuration on page 486 and Connecting the CAT5 cables to the IPSI circuit packs on page 494 for each port network that receives a TN2312BP.

Migrating translations

This section provides information for migrating translation files from the existing system to the new S8700 or S8710 Media Server.

Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the active media server.
2. Launch the Web browser.
3. In the **Address** field, type **192.11.13.6** and press **Enter** to bring up the login Web page.

4. Log in as **craft** or **dadmin**.

5. When asked **Do you want to suppress alarms?**, select **yes**.

6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

---

**Checking system status**

To check the system status, perform the following steps:

1. Under Server, click **Status Summary**.

2. Verify the following information

   - Duplication link between the S8700 Series Media Servers is Up
   - Standby shadowing is On
   - Standby Refreshed is Yes
Verifying license file

To verify the license file, perform the following steps:

2. Verify that the CommuникаMgr License Mode: field shows Normal.

Restoring data for a migration

The following procedure assumes the technician has already saved the customer’s conversion files (sent from the Avaya STS team) on the technician’s laptop.

Accessing the media server from your laptop

1. Connect a crossover cable to the Services port on the back of the media server.
2. Launch the Web browser.
3. Type 192.11.13.6 in the Address bar and press Enter to bring up the logon Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Verifying license file

2. Verify that the MultiVantage License Mode: field shows Normal.

Copying translation files to media server

1. Under Miscellaneous, click Download Files.
2. Click Browse and select the translation file saved on the Services laptop.
3. Click Download to place the file on the media server.

Restoring translation files

1. Under Data Backup/Restore, click View/Restore Data.
2. Select Local Directory and click View. The field automatically displays the default directory.
3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.
4. Click Restore to restore the translation files.
5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

   When done, the screen displays **Restore is finished**.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

**Connecting to the standby media server**

1. Connect to the Services port on the back of the standby media server.
2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Pages**.
5. Under Server, click **Release Server**.
6. Click **Release**.

**Connecting to the active media server**

1. Connect to the Services port on the back of the active media server.
2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Interface**.
5. Under Server, click **Status Summary** to verify that the standby media server has been refreshed. Do not continue until the standby media server has been refreshed.
6. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
7. Login as **craft** or **dadmin**.

**Installing the translations**

1. Type `reset system 4` and press **Enter**.
2. Return the STS-supplied PCMCIA flash card to Avaya.

Go to **Adding IPSI translations to Communication Manager** on page 504 to add the IPSI translations before saving translations.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter

```
change system-parameters ipserver-interface

IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS

SERVER INFORMATION

IPSI Host Name Prefix: vodka
Primary Control Subnet Address: 198.152.254.0 *
Secondary Control Subnet Address: 198.152.255.0 *

OPTIONS

Switch Identifier: A
IPSI Control of Port Networks: disabled
```

2. Verify that the **Primary Control Subnet Address** and **Secondary Control Subnet Address** (if equipped) fields are correct.

   The subnet addresses must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; the Communication Manager call processing software does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** and/or **Secondary Control Subnet Address** fields is not correct, it must be changed on the media servers. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks:** field is set to **disabled**.

5. Press **Enter** to submit the form.
Note:
The information you provide differs, depending on whether the IPSIs get static addresses or they are assigned automatically through DHCP.

Setting IPSI duplication (high/critical reliability only)

To set IPSI duplication, perform the following steps:

1. Type `change system-parameters duplication` and press **Enter**

2. Set the **Enable Operation of IPSI Duplication?** field to **y**.

3. Press **Enter** to effect the changes.

Adding IPSI information

To add IPSI information, perform the following steps:

1. Type `add ipserver-interface PNnumber` where `PNnumber` is the port network number and press **Enter** to add the IPSI circuit pack information.
2. When using a DHCP server, verify that the fields associated with the Primary IPSI and Secondary IPSI (if equipped) are populated with default data. The **Host** and **DHCP ID** fields are set by the DHCP server.

<table>
<thead>
<tr>
<th>add ipserver-interface 1</th>
<th>Page 1 of 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 1</td>
<td></td>
</tr>
</tbody>
</table>

- **IP Control?** y
- **Socket Encryption?** n
- **Ignore Connectivity in Server Arbitration?** n
- **Enable QoS?** n
- **Administer secondary ip server interface board?** y

**Primary IPSI**

- **Location:** 1AXX
- **Host:** cd
- **DHCP ID:** ipsi-A01a

**Secondary IPSI**

- **Location:** 1B01
- **Host:** ipsi-A09b
- **DHCP ID:** ipsi-A01b

3. Verify the correct setting for the **IP Control?** field

   - If IPSIs are in IP-connected PNs, then set the **IP Control?** field to **y**.
   - If IPSIs are in fiber-connected PNs (CSS or ATM), then set the **IP Control?** field to **y**.
   - If IPSIs are in fiber-connected PNs (direct-connect), then set the **IP Control?** field to **y** unless there is more than 1 IPSI. Then set the **IP Control?** field for the second IPSI to **n**.
   - If an IPSI is in a DS1-C–remoted PN, then set the **IP Control?** field to **n** to maintain the 5:1 ratio of IPSIs to PNs. If the field is set to **y**, then the system decreases the ratio to 2:1.

4. Verify that all the other fields are populated.

5. Press **Enter** to effect the changes.

6. Repeat steps 1 through 5 for each port network.
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.

2. In the **CPE Alarm Activation Level** field, select *none* (default), *warning*, *minor*, or *major*, depending on the level the customer wants.

---

Backing up translations

To back up translations, perform the following steps:

1. S8700 MC: Replace the PCMCIA memory card (Local PC card) in the bottom PCMCIA slot of the *active* media server.

   S8710: Place a formatted flash card in the compact flash drive attached to a USB port.

2. Launch a Web browser.

3. Log in as craft or dadmin.

4. Click **Launch Maintenance Web Pages**.

5. Under Data Backup/Restore, click **Backup Now**.

6. Select the data sets and the backup method.

   If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.

7. Click **Start Backup** to begin the back up process.
Migration tasks

Perform these tasks to convert a processor port network to a port network (SCC).

Verifying hardware

Make sure you have the conversion specific hardware on hand. See Table 14: Required Migration Hardware for a list of hardware.

Table 14: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J58890N</td>
<td>Port network expansion control carrier</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>CFY1B current limiter (CURL) (if SI; can reuse existing one if R)</td>
<td>1</td>
</tr>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter)</td>
<td>1</td>
</tr>
<tr>
<td>108865775</td>
<td>TN775D Maintenance circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700168727</td>
<td>Short ribbon cable—from maintenance board to IPSI in MCC1 A carrier</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>TN2302AP IP Media Processor circuit pack or TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or more</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/1</td>
</tr>
</tbody>
</table>

1 of 2
Removing the processor port network control cabinet

To remove the processor port network control cabinet:

1. Label both ends of all the cables being removed from all the cabinets. They are reused.

   **CAUTION:**
   
   All active calls processed through this port network are dropped when the cabinet stack is powered down. All trunks and lines within this cabinet stack are down until the cabinet stack is powered up and the media server controls the port network.

   **Note:**
   
   If the system is equipped with Power Failure Transfer (PFT) units using ground start trunks, you must install a temporary ground wire to the PFT units to allow them to operate properly when the cabinet is powered down. The AUX cable, that normally supplies the ground, will be disconnected.

2. Connect a 10 AWG (#25) (2.6 mm²) wire to pin 49 of the connecting block or to pin 49 of the CAP (cable access panel) on the power-failure transfer panel.

3. Route the opposite end of the wire to an approved ground and connect.

   **Note:**
   
   You can cut over to having the media server control the other PNs at this time. Only cutover at this time if you are *not* installing IPSI(s) in the PPN or the customer wants to minimize down time. To cutover, go to Enabling control of IPSI(s) on page 515.

4. Power down the cabinets in the SCC1 stack.

5. Remove all circuit packs from the cabinets and place them in an antistatic carrier.

6. Disconnect the cables on the front of the cabinets.
7. Disconnect the cables on the back of the cabinets.
   - CURL (cannot be reused)
   - TDM/LAN (reused)
   - ICC-A, -B (reused)
8. Remove all cabinet grounds.
9. Remove the top cabinet.
10. Remove the subsequent cabinets, including control cabinet A and control cabinet B (if high or critical reliability).

---

**Installing the expansion control media gateway**

To install the expansion control media gateway:

1. Install the J58890N expansion control media gateway.
2. Connect the media gateway grounds and power.

---

**Stacking the port media gateways**

To stack the port media gateways:

1. If needed, stack a port media gateway (J58890H) on top of the expansion control media gateway.
2. If needed, stack a third and fourth port media gateway on top of the first port media gateway.
3. Install the new CFY1B CURL unit on the back of control cabinet A.
4. Connect all the cables to the back of all the media gateways.
   - TDM/LAN
   - ICC-A, -B

---
Installing IPSI and maintenance circuit packs

If this PN does *not* contain an IPSI, install the tone clock and maintenance circuit packs, as required, then continue with Installing Expansion Interface circuit packs on page 500.

If this PN contains one or two IPSIs, reinstall the IPSIs and the ribbon cables as you did before. See Duplex reliability configuration on page 483 and High or critical reliability configuration on page 486.

Installing Expansion Interface circuit packs

Note:

If the existing PPN has a TN776 or TN570 Expansion Interface circuit pack(s), you must replace them with a TN570B Expansion Interface, vintage 7, or higher circuit pack.

If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN776 or TN570 Expansion Interface circuit packs with a TN570D Expansion Interface or later circuit pack.

To install the Expansion Interface circuit packs:

1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570C or higher EI circuit packs into the EXPN INTFC slots (A01, B02).

If reusing the EI circuit pack in a CSS:

3. Move the EI/ATM Interface circuit pack from location C02 to location A01.
4. If critical reliability, move the EI/ATM Interface circuit pack from location D02 to location B02.

If using ATM Els:

5. Run the fiber optic cables for the expansion interface circuit packs through the media gateway, using a cable pass-thru kit.
6. Connect the fiber optic cables to the connector on the front of the expansion interface circuit packs. LED lights up when properly connected.

Powering up the media gateway(s)

To power up the media gateway(s):

1. Power up the media gateways.
2. Remove the emergency ground wire if used.
Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using the dynamic host configuration protocol (DHCP).

Using DHCP addressing

For the TN2312BP IPSI circuit packs to get IP addresses dynamically, you must first assign the switch ID (A through J) and the cabinet number (01 through 64) to each IPSI circuit pack. For G650 Media Gateways, a cabinet is defined as one or more media gateways connected by TDM cable, which is called a G650-rack-mount-stack.

Administering the location assignment

1. Fully insert the TN2312BP IPSI circuit pack. If necessary, reseat the circuit pack to begin the programming sequence.

   Note:
   You must start the following steps within 5 seconds after inserting the circuit pack.

2. Insert a pen, golf tee, or similar object (no graphite pencil) into the recessed push button switch.
Note:
If you pass up the letter or number that you want, you must either cycle through all the letters or numbers to get to the one you want or reinsert (reseat) the circuit pack and begin again.

Setting the switch ID
If you have only one system, the default switch ID is A. The second system would be B and so on. The switch ID is not the media gateway or carrier letter.

1. While the display is flashing, press the button until the switch ID (A through J) shows on the top character of the LED display. When the correct letter shows, stop. It will flash a few times (5 seconds) then stop. The next character down begins to flash.

Setting the cabinet number
The number to program is the cabinet number not the port network number. If you have more than one IPSI in a cabinet, they all have the same cabinet number.

1. While the first digit of the number is flashing, press the button until the correct tens digit (0 through 6) shows on the display. When the correct digit shows, stop. It flashes a few times then stops (5 seconds). The second digit begins flashing.

2. While the second digit is flashing, press the button until the correct units digit (0 through 9) shows on the display. When the correct digit shows, stop. The digit flashes a few times then stops (5 seconds).

3. All segments of the display goes dark for one second, and then the Switch ID and media gateway stack number is displayed in the top three characters of the LED display. A "V" is shown in the fourth character (bottom) of the display. When the DHCP server assigns an address to the IPSI, the center of the "V" is filled in to form the bottom half of a diamond in the display.

For duplicated control network, repeat these steps for the second IPSI in the cabinet.
Migrating from a DEFINITY Server SI in an SCC to an S8700 Series Media Server Multi-Connect

---

**Verifying IPSI translations**

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.

---

**Verifying IPSI connectivity**

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click **Ping**.

2. Select **IPSI's with cab number (1–99) ____ carrier number ____**. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click **Execute Ping**.

4. Verify that the endpoints respond correctly.
Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

Note: Make sure the IPSI(s) have the same, current firmware.

⚠️ CAUTION: This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type `change system-parameters ipserver-interface` and press Enter.

   change system-parameters ipserver-interface                     Page  1 of   1

   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS

   SERVER INFORMATION

   IPSI Host Name Prefix: neptune
   Primary Control Subnet Address: 198.152.254.  0 *
   Secondary Control Subnet Address: 198.152.255.  0 *

   OPTIONS

   Switch Identifier: A
   IPSI Control of Port Networks: enabled

2. Set the IPSI Control of Port Networks: field to enabled
3. Press Enter to effect the change.
4. Type `save translation` and press Enter.

All the port networks are now controlled by the media server.

Verifying customer’s data

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the converted cabinets (chassis). Verify that the information is correct.
Verifying circuit pack locations

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the converted cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the converted cabinet, and press Enter. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the stack (SCC).

Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `status system all` and press Enter to see the list of all the slot locations.

2. Verify that the circuit pack code and vintage number appears in the Code and Vintage fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.

2. Type `list node-names` and press Enter to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press Enter. Write down all enabled links.

2. Type `status link number` where `number` is 1-99 and press Enter.

3. Compare which links are in service with the pre-migration list.

4. Repeat steps 2 and 3 for all link numbers.
Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.
2. Verify the firmware release for the TN2312BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219."

Testing the installation

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.
Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.

Changing port networks to IP-Connect

These procedures are for migrating Multi-Connect to Multi-Connect. However, if you want to change one or more port networks to IP-Connect, see Conversions.
Migrating a DEFINITY Server SI in an MCC to an S8700 Series Media Server Multi-Connect

These procedures are for migrating from an existing DEFINITY Server SI in an MCC to the Avaya S8700 Series Media Server Multi-Connect configuration.

But before installing the IPSI, you must convert the PPN to an EPN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs. This is a service-affecting event.

Basic migration steps

Note:

When this migration is complete, the terms EPN and port network (PN) can be used synonymously.

When migrating from DEFINITY platforms:

● Install the media servers and, if Avaya supplied, the Ethernet switch(es) and uninterruptible power supply (UPSs) in the 4-post, 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Servers (555-245-703)

● Replace the Tone-Clock with the IPSI circuit pack

● If high or critical reliability, replace the second control carrier/cabinet with a port carrier/cabinet (when reusing MCCs)

● Connect the media servers to the media gateways

● Enable control of the IPSIs, switching control to the media servers

● Install new RFA license file and authentication file

● Complete the post-migration administration
Migration paths

DEFINITY Server SI in an MCC and their releases that can be migrated to the S8700 Series Media Server Multi-Connect configurations include DEFINITY Release G3V4, Release G3s/si (w/Intel 386), Release 5 - 10, MV Release 1.1 and 1.2, and release 1.3 - 2.2 of Communication Manager.

When migrating, you can use the existing translations. You must freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation files and translation reports via email along with documentation on how to save them to the Services laptop and restore them to the S8700 Series Media Server. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Prerequisites** on page 520 - these are tasks that must be performed before going on site.
- on page 522 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
- **Pre-site migration checklist** on page 527 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 528 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 529 - these are the documents Avaya recommends that you have on hand for the migration.
## Tasks checklists

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Verify that your Services laptop has the appropriate hardware.** | Correct hardware components include:  
  - 40 MB available disk space  
  - direct Ethernet cable  
  - serial cable and adapter  
  - RS-232 port connector  
  - Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  - 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  - CD-ROM drive |
| **Verify that your Services laptop has the appropriate software.** | Correct software components include:  
  - Windows 2000/XP operating system  
  - Terminal emulation program: HyperTerminal or other  
  - TCP/IP networking software: bundled with Windows OS  
  - Web browser: Internet Explorer 5.0 or later |
| **Obtain appropriate logins and passwords for all equipment and software.** | For example, obtain logins and passwords for the following components:  
  - Media Server  
  - Media Gateway  
  - auxillary equipment  
  - Communication Manager  
  These logins and passwords include the customer’s equipment. |
| **Obtain the serial number of the Media Servers, if necessary.** | You need a new RFA license file and authentication file.  
  You need the serial number from the reference IPSI and the SAP order number to generate a new license file. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
- service packs  
- license file  
- authentication file  
- firmware for programmable circuit packs |
Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that your Services laptop has the appropriate hardware.</td>
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</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>● direct Ethernet cable</td>
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<tr>
<td></td>
<td>● RS-232 port connector</td>
</tr>
<tr>
<td></td>
<td>● Network interface card (NIC) with a 10/100 BaseT Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>● 10/100 BaseT Ethernet, category 5 (or better) crossover cable with an RJ45</td>
</tr>
<tr>
<td></td>
<td>connector on each end (MDI to MDI-X)</td>
</tr>
<tr>
<td></td>
<td>● CD-ROM drive</td>
</tr>
<tr>
<td>Verify that your Services laptop has the appropriate software.</td>
<td>Correct software components include:</td>
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<tr>
<td></td>
<td>● Windows 2000/XP operating system</td>
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<td></td>
<td>● Terminal emulation program: HyperTerminal or other</td>
</tr>
<tr>
<td></td>
<td>● TCP/IP networking software: bundled with Windows OS</td>
</tr>
<tr>
<td></td>
<td>● Web browser: Internet Explorer 5.0 or later</td>
</tr>
<tr>
<td>Obtain appropriate logins and passwords for all equipment and software.</td>
<td>For example, obtain logins and passwords for the following components:</td>
</tr>
<tr>
<td></td>
<td>● Media Server</td>
</tr>
<tr>
<td></td>
<td>● Media Gateway</td>
</tr>
<tr>
<td></td>
<td>● auxiliary equipment</td>
</tr>
<tr>
<td></td>
<td>● Communication Manager</td>
</tr>
<tr>
<td></td>
<td>These logins and passwords include the customer’s equipment.</td>
</tr>
<tr>
<td>Obtain the serial number of the Media Servers, if necessary.</td>
<td>You need a new RFA license file and authentication file.</td>
</tr>
<tr>
<td></td>
<td>You need the serial number from the reference IPSI and the SAP order number</td>
</tr>
<tr>
<td></td>
<td>to generate a new license file.</td>
</tr>
<tr>
<td>Verify that you have the Communication Manager software distribution CD</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
</tbody>
</table>

1 of 2
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  ● service packs  
  ● license file  
  ● authentication file  
  ● firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out Electronic Preinstallation Worksheet (EPW)</td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the project manager, software specialist, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see [Migration paths](#) on page 520.
When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **✓** Find out which adapters and cables are reusable. | The following items are *not* reusable:  
  - 982LS Current Limiter (CURL) for an SI; must replace with larger CFY1B CURL  
  - C-LAN 259A adapter; must use adapter for IP Media Processor for 100 Mbps speed  
  - CAT3 cable used with C-LAN; must use CAT5 or better for 100 Mbps speed. |
| **✓** Replace any TN775/B/C maintenance circuit packs. | Replace with TN775D circuit packs in any EPNs that will have an IPSI. |
| **✓** About 2 weeks before the migration, freeze the translations. | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
  STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician.  
  Verify that a copy of the existing translations exists so they can be re-entered later. |
| **✓** Verify that you have the appropriate logins and passwords to access the media servers and server complex components. | When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer's media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response.  
  This unique craft password remains valid until it is changed by installing a new authentication file. |
| **✓** Copy the translation file from STS to a directory on the Services laptop. | Files normally are in the 1-4 megabytes range. |
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>✔ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>redesigned.</td>
<td></td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace the TN776 and TN570 EI circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>

Before you go on site, complete the following additional tasks:

<table>
<thead>
<tr>
<th>✔ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace the TN570 EI circuit packs.</td>
<td>If coincidentally installing an ESS server, replace with TN570D or later circuit pack.</td>
</tr>
</tbody>
</table>
## On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled <em>Approved Grounds</em> (555-245-772)</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See <em>Installing and Configuring the Avaya S8700 Media Server</em> (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there (for installing in square holes or with adapters). Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>Verify that cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs is labeled and that appropriate connectivity is provided.</td>
<td>The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs runs from the control hardware rack to the port networks.</td>
</tr>
<tr>
<td>Verify that you have the license file from RFA and that it includes the licensed features.</td>
<td></td>
</tr>
<tr>
<td>Verify that you have the Avaya authentication file from RFA.</td>
<td></td>
</tr>
</tbody>
</table>
Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.

Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
</tr>
<tr>
<td>Installing and Configuring an Avaya S8700 Series Media Server (03-300145)</td>
<td>Provides installation instructions for the S8700 Series Media Servers.</td>
</tr>
<tr>
<td>Job Aid: Server and CSS Separation - Avaya S8700 Series Media Server (555-245-766)</td>
<td>Provides information on and connectivity diagrams when the S8700 Series Media Servers are in separate locations.</td>
</tr>
</tbody>
</table>

Migration tasks

Perform these tasks to convert a processor port network to a port network.

Pre-migration administration:

- Connecting to the processor on page 531
- Verifying system status on page 531
- Recording all busyouts on page 531
- Note node names and IP addresses on page 532
- Saving translations on page 532
- Connecting media server and IPSI cables to Ethernet switch(es) on page 533
- Upgrading hardware in each port network on page 534
- Duplex reliability configuration on page 535
Migrating a DEFINITY Server SI in an MCC to an S8700 Series Media Server Multi-Connect

- **High or critical reliability configuration** on page 538
- **Connecting the CAT5 cables to the IPSI circuit packs** on page 540
- **Installing Expansion Interface circuit packs** on page 541
- **Completing circuit pack replacement** on page 541

**Migration tasks:**
- **Accessing the media server** on page 541
- **Checking system status** on page 542
- **Verifying license file** on page 543
- **Restoring data for a migration** on page 543
- **Adding IPSI translations to Communication Manager** on page 545
- **Backing up translations** on page 548
- **Verifying hardware** on page 549
- **Removing the processor port network control carrier(s)** on page 550
- **Installing the expansion control carrier and port carrier** on page 551
- **Installing IPSI and maintenance circuit packs** on page 552
- **Connecting the CAT5 cables to the IPSI circuit packs** on page 552
- **Installing Expansion Interface circuit packs** on page 552
- **Powering up the media gateway(s)** on page 553

**Post-migration administration:**
- **Assigning IP addresses to the IPSI circuit packs** on page 553
- **Verifying IPSI connectivity** on page 556
- **Enabling control of IPSI(s)** on page 556
- **Verifying customer's data** on page 557
- **Upgrading firmware (if necessary)** on page 558
- **Testing the installation** on page 559
- **Busying out trunks** on page 559
- **Troubleshooting the migration** on page 559
- **Returning replaced equipment** on page 559
Pre-migration administration

This is a service-affecting event. The PPN must be powered down to replace the carrier. Before powering down the cabinet, you must do some pre-migration administration.

Connecting to the processor

To connect to the SI processor, complete the following steps:

1. Use the computer used to access the cabinet.
2. Open a SAT session using Avaya Site Administration.
3. Log in as craft.

Verifying system status

You want to check which groups are in or out of service before the migration and compare the list after the migration to make sure they are the same.

To verify system status, complete the following steps:

1. Execute the following commands to see whether the system has administration:
   a. list configuration all
   b. list trunk-group
   c. list hunt-group

   If any command does not complete successfully, escalate the problem immediately. After the migration, check the same administration to be sure that the translations are intact.

Recording all busyouts

To record busyouts, complete the following steps:

1. Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.
Migrating a DEFINITY Server SI in an MCC to an S8700 Series Media Server Multi-Connect

---

**Note node names and IP addresses**

To record node names and IP addresses, complete the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   **Note:**
   
   If the existing switch has a TN799C C-LAN circuit pack, you’ll need to replace it with a TN799DP circuit pack.

2. Type `display ip-interfaces` and press **Enter** to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press **Enter** to get the IP addresses that match the node names.

4. Write the information down for after the migration.

---

**Saving translations**

Although the migrated translations are already copied to the S8700 Series Media Server, this step is important in case you need to back out of the migration.

**Note:**

Save translations to a flash card.

To save translations, complete the following step:

1. Type `save translation` and press **Enter** to save translations to the flash disk.

   Either a **Command successfully completed** message displays or all error messages are logged.

---

**Upgrading and administering the existing hardware**

This section covers upgrading and administering existing port networks (PNs) in preparation for migrating to the S8700 Series Multi-Connect configuration for multicarrier cabinets (MCCs). This consists of:

- Placing the CAT5 cables between the Ethernet switches and PNs
- Changing out expansion interface circuit packs (if necessary)
Upgrading and administering the existing hardware

- Changing out tone clocks and maintenance boards for IP Server Interfaces (IPSI) and new maintenance boards
- Connecting the IPSI boards to the Ethernet Switches.
- Assigning IDs or static IP addresses to the IPSI boards

This can all be done while the existing switch is in service. However, with duplex reliability configurations, short service interruptions are encountered as the tone clock is changed out in IPSI-controlled PNs.

Note:
If you are installing IPSIs in the existing PPN, you must move all the new circuit packs to the new carrier (cabinet) during the PPN conversion.

This section assumes that the S8700 Series Media Servers have the latest software release, the media server complex is installed, configured, and operational.

This section covers the following tasks:
- Connecting media server and IPSI cables to Ethernet switch(es) on page 533
- Upgrading hardware in each port network on page 534
- Installing Expansion Interface circuit packs on page 541
- Post-migration tasks on page 553

Connecting media server and IPSI cables to Ethernet switch(es)

See Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703) for a connectivity guide.

Each TN2312BP IP Server Interface (IPSI) circuit pack must have a CAT5 Ethernet cable back to the Ethernet switch. Cables for IPSIs located in PN carrier A are GREEN. Cables for IPSIs located in PN carrier B (high or critical reliability) are RED.

Each media server is connected to the Ethernet switch(es) that comprise Control Network A (CNA) in duplex configurations (GREEN cable).

Each media server is connected to the Ethernet switch(es) that comprise Control Network B (CNB) in high and critical reliability configurations (RED cable).
Upgrading hardware in each port network

In IPSI-controlled PNs you must replace the existing tone-clock and maintenance circuit packs with a TN2312BP IPSI circuit pack and TN775D or later maintenance circuit pack. You must also replace TN570 (R) Expansion Interface circuit packs with TN570B, vintage 7, or later circuit packs.

- Replacing tone clocks with IPSI circuit packs and replace maintenance circuit packs on page 534
- Assigning IP addresses to the IPSI circuit packs on page 553
- Completing circuit pack replacement on page 541

Replacing tone clocks with IPSI circuit packs and replace maintenance circuit packs

Note:
Before beginning, read this procedure and Assigning IP addresses to the IPSI circuit packs on page 553 to familiarize yourself with them. If using DHCP server, setting the Switch ID and Cabinet number on the IPSI circuit pack can be done at initial installation. However, there are certain sequences that need to be completed prior to a predetermined time-out interval. If the Switch ID and Cabinet number are not set when the circuit pack is first plugged in it can be done later but it will require that the circuit pack be reseated. This could result in an additional service interruption in a duplex reliability configurations.

Determining IPSI placement in port networks

Determine which PNs get the IPSI circuit packs. Not all PNs require them. Port networks that do not house an IPSI have an Expansion Interface (EI) circuit pack that controls the PN. These EI-controlled PNs are assigned automatically to an IPSI at switch initialization. The balancing of EI-controlled PNs amongst available IPSIs is also done automatically.

Also, with Release 2.0 or later of Communication Manager, you are allowed to put an IPSI in a DS1-C-remoted port network.

The following are the rules and guidelines for placement of IPSI circuit packs.

Rules:
- When placing an IPSI in a DS1-C-remoted port network, make sure that the non-remoted IPSI is administered first and that the IP Control field is set to y. The IPSI in the DS1-C-remoted PN does not have to be set to no. However, if it is set to y, customers need to run Ethernet from the IPSI and there is limited control (1:2 versus 1:5).
Upgrading and administering the existing hardware

- The reference IPSI (the one whose serial number is used in the license file) is placed in the PN with the shortest Ethernet connection to the media servers. This minimizes the amount of data network that could fail between the IPSI and the media servers causing the system to switch to No License mode.

- The minimum number of port networks that require an IPSI is determined by the following formulas:
  - Duplex (Direct Connect): 1 IPSI controls up to 3 PNs. If 1 or 2 PNs and if a G650 media gateway PN is added, it may have an IPSI too. If 2 IPSIs are used, the IP control for 1 is yes and the other is no.
  - Duplex (CSS or ATM): Total Number of PNs divided by 5 (if not an integer, round up), plus one.
  - High/Critical: Total Number of PNs divided by 5 (if not an integer, round up). For each IPSI-connected PN, you need 2 IPSIs.

Guidelines:

- On large configurations that contain multiple switch node carriers, IPSIs should be placed as evenly as possible among the switch nodes. Use the list fiber all command to determine which port networks are connected to which switch node.

**Duplex reliability configuration**

To set up a duplex configuration, perform the following steps:

⚠️ WARNING:

The following procedure affects service when the circuit packs are being switched out. Coordinate this activity with the customer to minimize disruption of customer activities.

**Note:**

You can replace the maintenance circuit pack with the TN775D Maintenance (EPN) (if necessary) and the TN2182 Tone Clock circuit packs with the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs and program them ahead of time. All the circuit packs being replaced are hot-swappable, so you do not need to power down the PNs or the carrier.

1. Type `status system all` and press Enter to determine which PNs have TN2182 Tone Clock circuit packs, which cabinets they are in, which is active, and which is standby.

2. In cabinets receiving an IPSI circuit pack, remove the TN2182 Tone Clock circuit pack from the expansion control carrier and place it in an antistatic carrier.

**Note:**

If present, do not remove the TN771 Maintenance/Test circuit pack.
3. Remove the TN775B/C Maintenance (EPN) circuit pack from the expansion control carrier and place it in an antistatic carrier.

4. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot.

5. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the TN 2312BP circuit pack. See Figure 37: Ribbon Cable Connector.

Figure 37: Ribbon Cable Connector

6. Push the tabs on the ends of the connector inward to lock the connector in place.

7. Thread the ribbon through the slot on the front panel. See Figure 38: Duplex Reliability Ribbon Cable Connection on page 537. (Duplex reliability in the S8700 Series Multi-Connect configuration consists of the two media servers.)

8. Insert the TN775D maintenance circuit pack part way into the MAINTENANCE slot.

9. Attach the other end of the short ribbon cable to the top connector on the component side of the TN775D circuit pack (red line on the bottom). See Figure 38: Duplex Reliability Ribbon Cable Connection on page 537.
10. Push the tabs on the ends of the connector inward to lock the connector in place.
11. Thread the ribbon through the slot on the front panel.
12. Fully insert the circuit packs.
13. Program the TN2312BP just inserted. See Assigning IP addresses to the IPSI circuit packs on page 553.
High or critical reliability configuration

To set up a high or critical reliability configuration, perform the following steps:

**Note:**
You can replace the maintenance circuit pack with the TN775D Maintenance (EPN) (if necessary) and the TN2182 Tone Clock circuit packs with the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs and program them ahead of time. All the circuit packs being replaced are hot-swappable, so you do not need to power down the PNs or the carrier.

These procedures assume that the tone-clock and maintenance circuit packs are in the A and B carriers. If one of them is in the E or D rather than B carrier, then the ribbon cable is not necessary.

1. Determine which PNs get the IPSI circuit packs. See [Determining IPSI placement in port networks](#) on page 534.

**Note:**
Not every port network requires an IPSI circuit pack.

2. Type `status system all` and press Enter to determine which port networks have TN2182 Tone Clock circuit packs, which media gateway they are in, which is active, and which is standby.

3. If needed, type `set tone-clock cabinet carrier` where `cabinet` is 1-64 and `carrier` is A-E and press Enter to make the tone clock in the B carrier active.

4. Remove the TN2182 Tone Clock circuit pack from the standby carrier (A) and place it in an antistatic carrier.

**Note:**
If present, do not remove the TN771 Maintenance/Test circuit pack.

5. Remove the TN775B/C Maintenance/Test circuit pack from standby carrier (A) and place it in an antistatic carrier.

6. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot on the standby carrier (A).

7. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the circuit pack.

8. Push the tabs on the ends of the connector inward to lock the connector in place. See [Figure 37: Ribbon Cable Connector](#) on page 536.

9. Thread the ribbon through the slot on the front panel.

10. Insert the TN775D Maintenance (EPN) circuit pack part way into the MAINTENANCE slot in carrier A.
11. Attach the other end of the short ribbon cable to the top connector on the component side of the circuit pack (red line on the bottom). See Figure 38: Duplex Reliability Ribbon Cable Connection on page 537.

12. Push the tabs on the ends of the connector inward to lock the connector in place.

13. Thread the ribbon through the slot on the front panel.

14. Fully insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack only.

15. Assign the Switch and Cabinet ID to the TN2312BP Internet Protocol Server Interface (IPSI) just inserted. See Assigning IP addresses to the IPSI circuit packs on page 553.

16. Type set tone-clock cabinet carrier and press Enter to force a tone-clock interchange.

17. Type status port-network number where number is the number of the port network and press Enter to verify the service state of the tone-clock. Verify that the YELLOW LED on the IPSI circuit pack is flashing.

18. Remove the TN2182 Tone Clock circuit pack from the new standby carrier (B) and place in an antistatic carrier.

19. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot on the standby carrier (B).

20. With the red line on the bottom (pin 1), attach one end of the long ribbon cable to the connector on the component side of the circuit pack.

21. Push the tabs on the ends of the connector inward to lock the connector in place. See Figure 37: Ribbon Cable Connector on page 536.

22. Thread the ribbon through the slot on the front panel.

23. Attach the other end of the long ribbon cable to the bottom connector on the component side of the TN775D Maintenance (EPN) circuit pack (red line on the bottom). See Figure 39: High/Critical Reliability Ribbon Cable Connection on page 540.

24. Fully insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.

25. Program the TN2312BP Internet Protocol Server Interface (IPSI) just inserted. See Assigning IP addresses to the IPSI circuit packs on page 553.

26. Fully insert the TN775D Maintenance (EPN) circuit pack after both IPSIs have been programmed.
Connecting the CAT5 cables to the IPSI circuit packs

See Quick Start for Hardware Installation: Avaya S8700 Series Media Servers (555-245-703) for a connectivity guide.

To connect the CAT 5 cables to the IPSI circuit packs, perform the following step:

1. Connect the GREEN CAT5 cable to the IPSI in the A carrier or cabinet in the A position.
2. If high or critical reliability, connect the RED CAT5 cables to the IPSIs in the B carrier or cabinet in the B position.
Installing Expansion Interface circuit packs

To install the Expansion Interface circuit packs, perform the following steps:

Note:

If the existing PPN has TN776 or TN570 Expansion Interface circuit packs, you must replace them with a TN570B Expansion Interface, vintage 7, or later circuit pack.

If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN776 or TN570 Expansion Interface circuit packs with a TN570D or later Expansion Interface circuit pack.

1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570B Expansion Interface, vintage 7, or later EI circuit pack into the EXPN INTFC slots (01, 02).
3. Repeat steps 1 and 2 for each PN that does not have TN570B Expansion Interface, vintage 7, or later EI circuit packs.

Completing circuit pack replacement

For duplex reliability configurations repeat Duplex reliability configuration on page 535 for each port network that will receive a TN2312BP.

For high and critical reliability configurations repeat High or critical reliability configuration on page 538 and Connecting the CAT5 cables to the IPSI circuit packs on page 540 for each port network that receives a TN2312BP.

Migrating translations

This section provides information for migrating translation files from the existing switch to the new S8700 Series Media Server.

Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the active media server.
2. Launch the Web browser.
3. In the **Address** field, type **192.11.13.6** and press **Enter** to bring up the login Web page.

4. Log in as **craft** or **dadmin**.

5. When asked **Do you want to suppress alarms?**, select **yes**.

6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

### Checking system status

To check the system status, perform the following steps:

1. Under Server, click **Status Summary**.

2. Verify the following information

   - Duplication link between the S8700 Series Media Servers is Up
   - Standby shadowing is On
   - Standby Refreshed is Yes
Verifying license file

To verify the license file, perform the following steps:

2. Verify that the CommunicaMgr License Mode: field shows Normal.

Restoring data for a migration

The following procedure assumes the technician has already saved the customer’s conversion files (sent from the Avaya STS team) on the technician’s laptop.

Accessing the media server from your laptop

1. Connect a crossover cable to the Services port on the back of the media server.
2. Launch the Web browser.
3. Type 192.11.13.6 in the Address bar and press Enter to bring up the logon Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Verifying license file

2. Verify that the MultiVantage License Mode: field shows Normal.

Copying translation files to media server

1. Under Miscellaneous, click Download Files.
2. Click Browse and select the translation file saved on the Services laptop.
3. Click Download to place the file on the media server.

Restoring translation files

1. Under Data Backup/Restore, click View/Restore Data.
2. Select Local Directory and click View. The field automatically displays the default directory.
3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.
4. Click Restore to restore the translation files.
5. Click **Restore Status**.

6. Select the first file, then scroll down and click **Review Status** to see the results of the restore.

   When done, the screen displays **Restore is finished**.

   If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

**Connecting to the standby media server**

1. Connect to the Services port on the back of the standby media server.
2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Pages**.
5. Under Server, click **Release Server**.
6. Click **Release**.

**Connecting to the active media server**

1. Connect to the Services port on the back of the active media server.
2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Interface**.
5. Under Server, click **Status Summary** to verify that the standby media server has been refreshed. Do not continue until the standby media server has been refreshed.
6. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
7. Login as **craft** or **dadmin**.

**Installing the translations**

1. Type `reset system 4` and press **Enter**.
2. Return the STS-supplied PCMCIA flash card to Avaya.

   Go to **Adding IPSI translations to Communication Manager** on page 545 to add the IPSI translations before saving translations.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter

   ```
   change system-parameters ipserver-interface
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS
   
   SERVER INFORMATION
   
   IPSI Host Name Prefix: neptune
   Primary Control Subnet Address: 198.152.254. 0 *
   Secondary Control Subnet Address: 198.152.255. 0 *
   
   OPTIONS
   
   Switch Identifier: A
   IPSI Control of Port Networks: disabled
   ```

2. Verify that the **Primary Control Subnet Address** and **Secondary Control Subnet Address** (if equipped) fields are correct.

   The subnet addresses must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; the Communication Manager call processing software does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**
   
   If the information displayed in the **Primary Control Subnet Address** and/or **Secondary Control Subnet Address** fields is not correct, it must be changed on the media servers. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks**: field is set to **disabled**.

5. Press **Enter** to submit the form.
Note:
The information you provide differs, depending on whether the IPSIs get static addresses or they are assigned automatically through DHCP.

Setting IPSI duplication (high/critical reliability only)

To set IPSI duplication, perform the following steps:

1. Type `change system-parameters duplication` and press Enter

2. Set the Enable Operation of IPSI Duplication? field to `y`.

3. Press Enter to effect the changes.

Adding IPSI information

To add IPSI information, perform the following steps:

1. Type `add ipserver-interface PNnumber` where `PNnumber` is the port network number and press Enter to add the IPSI circuit pack information.
2. When using a DHCP server, verify that the fields associated with the Primary IPSI and Secondary IPSI (if equipped) are populated with default data. The **Host:** and **DHCP ID:** fields are set by the DHCP server.

<table>
<thead>
<tr>
<th>add ipserver-interface 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 1</td>
</tr>
<tr>
<td>IP Control? y</td>
</tr>
<tr>
<td>Ignore Connectivity in Server Arbitration? n</td>
</tr>
<tr>
<td>Administer secondary ip server interface board? y</td>
</tr>
</tbody>
</table>

**Primary IPSI**
- Location: 1AXX
- Host: cd
- DHCP ID: ipsi-A01a

**Secondary IPSI**
- Location: 1B01
- Host: ipsi-A09b
- DHCP ID: ipsi-A01b

3. Verify the correct setting for the **IP Control?** field
   - If IPSIs are in IP-connected PNs, then set the **IP Control?** field to **y**.
   - If IPSIs are in fiber-connected PNs (CSS or ATM), then set the **IP Control?** field to **y**.
   - If IPSIs are in fiber-connected PNs (direct-connect), then set the **IP Control?** field to **y** unless there is more than 1 IPSI. Then set the **IP Control?** field for the second IPSI to **n**.
   - If an IPSI is in a DS1-C–remoted PN, then set the **IP Control?** field to **n** to maintain the 5:1 ratio of IPSIs to PNs. If the field is set to **y**, then the system decreases the ratio to 2:1.

4. Verify that all the other fields are populated.
5. Press **Enter** to effect the changes.
6. Repeat steps 1 through 5 for each port network.
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press **Enter**.

   ```
   change system-parameters
   maintenance
   ```

   **MAINTENANCE-RELATED SYSTEM PARAMETERS**

   **OPERATIONS SUPPORT PARAMETERS**
   
   CPE Alarm Activation Level: none

   **SCHEDULED MAINTENANCE**
   
   Start Time: 22:00
   Stop Time: 06:00
   Save Translation: daily
   Update LSPs When Saving Translations: y
   Command Time-out (hours): 2
   Control Channel Interchange: no
   System Clocks/IPSI Interchange: no

2. In the **CPE Alarm Activation Level** field, select **none** (default), **warning**, **minor**, or **major**, depending on the level the customer wants.

---

Backing up translations

To back up translations, perform the following steps:

1. Format an unformatted CompactFlash card.

   **Note:**
   
   For the following step, if you are not sure the card is formatted, then format the card.

2. S8700 MC: Insert the PCMCIA memory card (Local PC card) in the bottom PCMCIA slot of the **active** media server.

   S8710: Insert a formatted CompactFlash card in the compact flash drive attached to a USB port.

3. Launch a Web browser.

4. Log in as **craft** or **dadmin**.

5. Click **Launch Maintenance Web Pages**.

6. Under Data Backup/Restore, click **Backup Now**.
7. Select the data sets and the backup method.

If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.

8. Click **Start Backup** to begin the back up process.

---

**Migration tasks**

Perform these tasks to change a processor port network to a port network (MCC).

---

**Verifying hardware**

Make sure you have the conversion specific hardware on hand. See **Required Migration Hardware** on page 549 for a list of hardware.

**Table 10: Required Migration Hardware**

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J58890-AF-2 L13</td>
<td>Port network expansion control carrier</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>CFY1B current limiter (CURL) (can reuse existing one)</td>
<td>1</td>
</tr>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter)</td>
<td>1</td>
</tr>
<tr>
<td>108865775</td>
<td>TN775D Maintenance circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700168727</td>
<td>Short ribbon cable—from maintenance board to IPSI in MCC1 A carrier</td>
<td>1</td>
</tr>
<tr>
<td>700060063</td>
<td>Green CAT5 Ethernet cable:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td>1 or more</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
</tbody>
</table>
Removing the processor port network control carrier(s)

To remove the processor port network control carrier(s), perform the following steps:

1. Label both ends of all the cables being removed from the control carriers. They may be reused.

⚠️ CAUTION:

All active calls processed through this port network are dropped when the cabinet is powered down. All trunks and lines within this cabinet are down until the cabinet is powered up and the media server controls the port network.

Note:

If the switch is equipped with Power Failure Transfer (PFT) units using ground start trunks, you must install a temporary ground wire to the PFT units to allow them to operate properly when the cabinet is powered down. The AUX cable, that normally supplies the ground, will be disconnected.

2. Connect a 10 AWG (#25) (2.6 mm²) wire to pin 49 of the connecting block associated with the power failure transfer panel.

3. Route the opposite end of the wire to an approved ground and connect.

Note:

You can cut over to having the media server control the other PNs at this time. Only cutover at this time if you are not installing IPSI(s) in the PPN or the customer wants to minimize down time. To cutover, go to Enabling control of IPSI(s) on page 556.

4. Power down the cabinet.
5. Disconnect the cables on the front of carrier A.
   ● Power
   ● ATM Fiber (optional)
6. Remove all circuit packs from carrier A and place in an antistatic carrier.
7. Remove power supplies from carrier A.
8. Remove faceplate from carrier A
9. Disconnect the cables on the back of carrier A.
   ● TDM/LAN (reused)
   ● ICC-A, -B (Replaced)
   ● AUX Cable (reused)
   ● 9-pin D subminiature plug on right side of cabinet from the P1 connector on carrier (reused)
10. Remove the Current Limiter (CURL) unit from the back of the carrier. (Can be reused.)
11. Remove all carrier grounds.
12. Remove carrier A from the cabinet.
13. Repeat for carrier B (H/C only).

---

**Installing the expansion control carrier and port carrier**

To install the expansion control carrier and port carrier, perform the following steps:

1. Install the J58890-AF-2 L13 PN expansion control carrier in position A.
2. Install a J58890BB -4 L14 Port carrier in position B.
3. Connect the carrier grounds.
4. Install the CFY1B Current Limiter (CURL) unit on the back of control carrier A. (Reuse the CURL.)
5. Connect the cables to the back of the carriers.
   ● TDM/LAN
     ● Carrier A to D (if equipped)
     ● Carrier A to B
     ● Carrier B to C (if equipped)
   ● ICC cables from carrier A to B (if required).
     ● Duplex reliability: No ICC cables required
     ● High reliability: ICCC and ICCD
Critical reliability: ICCA, ICCB, ICCC, and ICCD

- AUX cable to carrier A.
- 9-pin D subminiature plug to P1 connector on each carrier.

6. Install faceplates on carrier A.
7. Install faceplates on carrier B.
8. Install power supplies in carrier A.
9. Install power supplies in carrier B.

---

Installing IPSI and maintenance circuit packs

If this PN does not contain an IPSI, install the tone clock and maintenance circuit packs, as required, then continue with Installing Expansion Interface circuit packs on page 552.

If this PN contains one or two IPSIs, reinstall the IPSIs and the ribbon cables as you did before. See Duplex reliability configuration on page 535 and High or critical reliability configuration on page 538.

Although you can use ICCs for connectivity (ICCC and ICCD) for consistency, just use the ribbons on the front.

---

Connecting the CAT5 cables to the IPSI circuit packs

See Quick Start for Hardware Installation: Avaya S8700 Series Media Servers (555-245-703) for a connectivity guide.

To connect the CAT 5 cables to the IPSI circuit packs, perform the following step:

1. Connect the GREEN CAT5 cable to the IPSI in the A carrier.

---

Installing Expansion Interface circuit packs

Note:

If the existing PPN has a TN776 or TN570 Expansion Interface circuit packs, you must replace them with a TN570B, vintage 7, or higher circuit pack.

If you are coincidentally installing an Enterprise Survivable Server (ESS), replace the TN776 or TN570 Expansion Interface circuit packs with a TN570D Expansion Interface or later circuit pack.
To install the Expansion Interface circuit packs, perform the following steps:

1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570C or higher EI circuit packs into the EXPN INTFC slots (A01, B02).

---

Powering up the media gateway(s)

To power up the media gateway(s), perform the following steps:

1. Power up the media gateways.
2. Remove the emergency ground wire if used.

---

Post-migration tasks

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using the dynamic host configuration protocol (DHCP).

Using DHCP addressing

For the TN2312BP IPSI circuit packs to get IP addresses dynamically, you must first assign the switch ID (A through J) and the cabinet number (01 through 64) to each IPSI circuit pack. For G650 Media Gateways, a cabinet is defined as one or more media gateways connected by TDM cable, which is called a G650-rack-mount-stack.
Administering the location assignment

1. Fully insert the TN2312BP IPSI circuit pack. If necessary, reseat the circuit pack to begin the programming sequence.

   **Note:**
   You must start the following steps within 5 seconds after inserting the circuit pack.

2. Insert a pen, golf tee, or similar object (no graphite pencil) into the recessed push button switch.

   **Note:**
   If you pass up the letter or number that you want, you must either cycle through all the letters or numbers to get to the one you want or reinsert (reseat) the circuit pack and begin again.

Setting the switch ID

If you have only one system, the default switch ID is A. The second system would be B and so on. The switch ID is *not* the media gateway or carrier letter.

1. While the display is flashing, press the button until the switch ID (A through J) shows on the top character of the LED display. When the correct letter shows, stop. It will flash a few times (5 seconds) then stop. The next character down begins to flash.
Setting the cabinet number

The number to program is the cabinet number not the port network number. If you have more than one IPSI in a cabinet, they all have the same cabinet number.

1. While the first digit of the number is flashing, press the button until the correct tens digit (0 through 6) shows on the display. When the correct digit shows, stop. It flashes a few times then stops (5 seconds). The second digit begins flashing.

2. While the second digit is flashing, press the button until the correct units digit (0 through 9) shows on the display. When the correct digit shows, stop. The digit flashes a few times then stops (5 seconds).

3. All segments of the display goes dark for one second, and then the Switch ID and media gateway stack number is displayed in the top three characters of the LED display. A "V" is shown in the fourth character (bottom) of the display. When the DHCP server assigns an address to the IPSI, the center of the "V" is filled in to form the bottom half of a diamond in the display.

For duplicated control network, repeat these steps for the second IPSI in the cabinet.

Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press `Enter`.

2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click Ping.

2. Select IPSIs with cab number (1–99) ___ carrier number ___. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click Execute Ping.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

Note:

Make sure the IPSI(s) have the same, current firmware.
Post-migration tasks

⚠️ CAUTION:
This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type `change system-parameters ipserver-interface` and press Enter.

   ```plaintext
   change system-parameters ipserver-interface
   
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS
   
   SERVER INFORMATION
   
   IPSI Host Name Prefix: neptune
   Primary Control Subnet Address: 198.152.254.0 *
   Secondary Control Subnet Address: 198.152.255.0 *
   
   OPTIONS
   
   Switch Identifier: A
   IPSI Control of Port Networks: enabled
   ```

2. Set the **IPSI Control of Port Networks**: field to **enabled**
3. Press Enter to effect the change.
4. Type `save translation` and press Enter.

   All the port networks are now controlled by the media server.

---

Verifying customer's data

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the converted cabinets (chassis). Verify that the information is correct.

Verifying circuit pack locations

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the converted cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the converted cabinet, and press Enter. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the rack (G600 or G650).
Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `status system all` and press Enter to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the Code and Vintage fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press Enter to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press Enter. Write down all enabled links.
2. Type `status link number` where number is 1-99 and press Enter.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.
2. Verify the firmware release for the TN2312BP IPSI.
Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Changing port networks to IP-Connect

These procedures are for migrating Multi-Connect to Multi-Connect. However, if you want to change one or more port networks to IP-Connect, see Conversions on page 759.
These procedures are for migrating from an existing DEFINITY Server R switch to an Avaya S8700 Series Media Server Multi-Connect configuration.

If all the port networks (PNs) are connected through a center stage switch (CSS) or asynchronous transfer mode (ATM), Avaya recommends replacing the tone clocks with TN2312BP IPSI circuit packs in the processor port network (PPN) and expansion port networks (EPNs) first. The IPSIs are hot swappable.

If all the PNs are direct connect, Avaya recommends that you install one IPSI in the existing PPN rather than in one of the EPNs. But before installing the IPSI, you must convert the PPN to an EPN by replacing the processor control carrier with an expansion control carrier and removing all the control circuit packs.

This is a service-affecting event.

---

**Basic migration steps**

*Note:* When this migration is complete, the terms EPN and port network (PN) can be used synonymously.

When migrating from DEFINITY platforms:

- Install the media servers and, if Avaya supplied, the Ethernet switch(es) and uninterruptible power supplies (UPSs) in the 2-post (S8700) or 4-post (S8710), 19-inch rack as described in the *Quick Start for Hardware: Avaya S8700 Series Media Server* (555-245-703)
- Replace the Tone-Clock with the IPSI circuit pack
- Connect the media servers to the media gateway
- Enable control of the IPSIs, switching control to the media servers
- Install new RFA license file and authentication file
- Complete the post-migration administration
Migration paths

DEFINITY Server R and their releases that can be migrated to the S8700 Series Media Server Multi-Connect configurations include DEFINITY Release G3V4, Release 5 - 10, MV 1.1 - 1.2, and release 1.3 of Communication Manager.

When migrating, you can use the existing translations. For a DEFINITY Server R with a magneto optical drive, you can use the Magneto Optical to S87x0 Translations (MOST) Tool to copy the translations to the S8700 Series Media Server. For a DEFINITY Server R without an optical drive, you must freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation files and translation reports via email along with documentation on how to save them to the Services laptop and restore them to the S8700 Series Media Server. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Transferring translations

From a magneto optical disk

The Magneto Optical to S87x0 Translations (MOST) Tool is used to transfer translation files from a Magneto Optical disk to an Avaya S8700 Series Media Server. This tool is used only when migrating call processing translations on a DEFINITY Server R to an Avaya S8700 Series Media Server in a Multi-Connect configuration only.

The MOST tool is not shipped with every switch but should be available locally.

The MOST tool for use with the S8700 Media Server consists of:

- External Magneto Optical drive
- SCSI PC card
- External SCSI cable

The MOST tool for use with the S8710 Media Server consists of:

- External Magneto Optical drive
- USB cable
Prerequisites

Ordering information

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>700226269</td>
<td>Magneto Optical Server to S8700 Translations (not orderable)</td>
</tr>
<tr>
<td>700355415</td>
<td>Magneto Optical Server to S8710 Translations (with USB cable)</td>
</tr>
</tbody>
</table>

⚠️ CAUTION: When creating the optical disk that will be used to move translations from the source switch to the S8700 Series Media Server, there are specific steps that must be followed. See Pre-site migration checklist on page 570.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration. This section covers the following tasks:

- Pre-site checklist on page 564 - these are tasks that must be performed before going on site.

- Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration; on page 566 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.

- Pre-site migration checklist on page 570 - these are tasks that must be completed before going on site.

- On site migration checklist on page 571 - these are tasks that must be performed on site before beginning the migration.

- Documentation checklist for migrations on page 572 - these are the documents Avaya recommends that you have on hand for the migration.
## Tasks checklists

### Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Correct hardware components include:</th>
</tr>
</thead>
</table>
| Verify that your Services laptop has the appropriate hardware. | ● 40 MB available disk space  
  ● direct Ethernet cable  
  ● serial cable and adapter  
  ● RS-232 port connector  
  ● Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
  ● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
  ● CD-ROM drive |

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Correct software components include:</th>
</tr>
</thead>
</table>
| Verify that your Services laptop has the appropriate software. | ● Windows 2000/XP operating system  
  ● Terminal emulation program: HyperTerminal or other  
  ● TCP/IP networking software: bundled with Windows OS  
  ● Web browser: Internet Explorer 5.0 or later |

<table>
<thead>
<tr>
<th>Task Description</th>
<th>For example, obtain logins and passwords for the following components:</th>
</tr>
</thead>
</table>
| Obtain appropriate logins and passwords for all equipment and software. | ● Media Server  
  ● Media Gateway  
  ● auxiliary equipment  
  ● Communication Manager  
  These logins and passwords include the customer’s equipment. |

<table>
<thead>
<tr>
<th>Task Description</th>
<th>You need a new RFA license file and authentication file.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain the serial number of the Media Servers, if necessary.</td>
<td>You need the serial number from the reference IPSI and the SAP order number to generate a new license file.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
<tr>
<td>Verify that you have copied all necessary files to your computer</td>
<td>These files may include: ● service packs ● license file ● authentication file ● firmware for programmable circuit packs</td>
</tr>
</tbody>
</table>
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

### Pre-migration setup

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, if you are not using the MOST Tool, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see [Migration paths](#) on page 562.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the project manager, software specialist, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>
When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Find out which adapters and cables are reusable.</td>
</tr>
<tr>
<td></td>
<td>The following items are <em>not</em> reusable:</td>
</tr>
<tr>
<td></td>
<td>● 982LS Current Limiter (CURL) for an SI; must replace with larger CFY1B CURL</td>
</tr>
<tr>
<td></td>
<td>● C-LAN 259A adapter; must use adapter for IP Media Processor for 100 Mbps speed</td>
</tr>
<tr>
<td></td>
<td>● CAT3 cable used with C-LAN; must use CAT5 or better for 100 Mbps speed.</td>
</tr>
</tbody>
</table>

**CAUTION:**

If you are going to use the MOST Tool, the following 8 tasks must be done *before* freezing translations or saving translations to an MO disk that will be used to read translations directly into a media server.

If you are going to use STS for translation conversion, go to [Replace any TN775/B/C maintenance circuit packs](#) on page 569.

**CAUTION:**

Be sure to perform this step before freezing translations.

Verify that existing logins do not begin with a number or an asterisk (*).

Linux does not support logins that begin with a number or asterisk. Use the SAT command `list logins` to verify existing logins do not begin with a number or an asterisk (*).

**CAUTION:**

Be sure to do this step before freezing translations.

Verify that the functions of the TN577 Packet Gateway and TN726B Data Line circuit packs (BX.25 links and mode 2 data modules) were converted to work through the C-LAN circuit packs.

Note that the TN577 circuit pack cannot be reused.

Use Avaya Terminal Emulator or Avaya Site Administration to perform a `list node-names` command.
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| **CAUTION:**  
Be sure to do this step before freezing translations.            | Verify that the peripherals (CMS, INTUITY) and Distributed Communication Service (DCS) links have been assigned node names and have an Ethernet address assigned. |
| **CAUTION:**  
Be sure to do this step before freezing translations.            | The S8700 and S8710 do not support the following data modules:  
- System Ports  
- PDMs (7400/8400 Data Modules)  
- PktGateway  
- Pkt Data Dataline  
- Modem Pool  
- System CDR PDMs  
- System Features Printer PDMs |
| **CAUTION:**  
Be sure to do this step before freezing translations.            | The announcements translations will come over to the S8700 Series Media Server; however, the circuit pack locations need to be changed to the TN2501AP Voice Announcement over LAN (VAL) circuit pack.  
**NOTE:**  
All announcement names must be unique on a TN2501AP Voice Announcement over LAN (VAL) circuit pack; the announcement names cannot contain any spaces/blanks or the following characters (/,:;?<>).  
Type change announcements to change any names and port locations. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>You first may need to change the System Parameters Maintenance screen before you can make any changes to the IP Services screen. On the IP Services screen in the Service Type field, remove Alarm1 and Alarm2.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>This indicates trunk group measurement reports are not required. Remember to re-measure trunk groups. Type <code>list trunk-group</code> to get a list of trunk groups that are &quot;measured&quot; and need to be changed. On the Trunk Group screen, change the Measured field from measured to none.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>If none, check the Attendant Console screens for any buttons with <code>attd-qcalls</code> or <code>attd-qtime btns</code>. Remove these if the 0 is not assigned as <code>attd</code>. Check the Dial Plan (or Dial Plan Analysis Table screen depending on the release) screen for 0 assigned as <code>attd</code>.</td>
</tr>
<tr>
<td>Replace any TN775/B/C maintenance circuit packs.</td>
<td>Replace the TN775/B/C maintenance circuit pack with TN775D circuit packs in any PNs that will have an IPSI.</td>
</tr>
<tr>
<td>About 2 weeks before the migration, freeze the translations.</td>
<td>Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations. STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. Verify that a copy of the existing translations exists so they can be re-entered later. Collect the translations locally via a spare flash card. If the existing system does not have a magneto optical drive or if the MOST (From a magneto optical disk on page 562) will not be used, send the translation media to the STS.</td>
</tr>
</tbody>
</table>

About 2 weeks before the migration, freeze the translations.

- Collect the translations locally via a spare flash card.
- If the existing system does not have a magneto optical drive or if the MOST (From a magneto optical disk on page 562) will not be used, send the translation media to the STS.

Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.

STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. Verify that a copy of the existing translations exists so they can be re-entered later.
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the appropriate logins and passwords to access the media servers and server complex components.</td>
<td>When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer’s media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response. This unique craft password remains valid until it is changed by installing a new authentication file.</td>
</tr>
<tr>
<td>Copy the translation file from STS to a directory on the Services laptop.</td>
<td>Files normally are in the 1-4 megabytes range.</td>
</tr>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned. (if applicable)</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 E1 circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
Before you go on site, complete the following additional tasks:

<table>
<thead>
<tr>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace the TN570 EI circuit packs.</td>
</tr>
<tr>
<td>If coincidentally installing an ESS server, replace with TN570D or later circuit pack.</td>
</tr>
</tbody>
</table>

**On site migration checklist**

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
</tr>
<tr>
<td>See the job aid titled <em>Approved Grounds</em> (555-245-772).</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
</tr>
<tr>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
</tr>
<tr>
<td>See <em>Installing and Configuring the Avaya S8700 Media Server</em> (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>
When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard, 19-inch (48-centimeter) equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there (for installing in square holes or with adapters). Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>Verify that cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs is labeled and that appropriate connectivity is provided.</td>
<td>The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs runs from the control hardware rack to the port networks.</td>
</tr>
<tr>
<td>Verify that you have the license file from RFA and that it includes the licensed features.</td>
<td></td>
</tr>
<tr>
<td>Verify that you have the Avaya authentication file from RFA.</td>
<td></td>
</tr>
<tr>
<td>Verify that you have the required tools on site.</td>
<td>For the Magneto Optical Server Tool, see Transferring translations on page 584.</td>
</tr>
</tbody>
</table>

**Documentation checklist for migrations**

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.
Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Start for Hardware Installation: Avaya S8700 Series Media Servers</td>
<td>A quick reference guide providing physical installation and connection information.</td>
</tr>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager</td>
<td>Provides information on network connectivity.</td>
</tr>
<tr>
<td>(555-233-504)</td>
<td></td>
</tr>
<tr>
<td>Installing and Configuring an Avaya S8700 Series Media Server (03-300145)</td>
<td>Provides installation instructions for the S8700 Series Media Servers.</td>
</tr>
<tr>
<td>Job Aid: Server and CSS Separation - Avaya S8700 Series Media Server</td>
<td>Provides information on and connectivity diagrams when the S8700 Series Media Servers are in separate locations.</td>
</tr>
<tr>
<td>(555-245-766)</td>
<td></td>
</tr>
</tbody>
</table>

**Migration tasks**

This section assumes that the media server complex is installed, configured, and operational.

⚠️ **CAUTION:**

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

**Note:**

The new license file should be installed on the media server before making the change.

Perform these tasks to convert a processor port network to a port network (MCC).
Pre-migration administration:
- Connecting to the processor on page 580
- Recording all busyouts on page 581
- Note node names and IP addresses on page 581
- Saving translations on page 581

Migration tasks:
- Accessing the media server on page 582
- Checking system status on page 583
- Verifying license file on page 583
- Transferring translations on page 584
- Restoring data for a migration on page 587
- Adding IPSI translations to Communication Manager on page 590
- Backing up translations on page 593
- Upgrading and administering the existing hardware on page 594
- Connecting media server and IPSI cables to Ethernet switch(es) on page 595
- Upgrading hardware in each port network on page 595
- Duplex reliability configuration on page 597
- Installing Expansion Interface circuit packs on page 603
- Completing circuit pack replacement on page 603
- Verifying hardware on page 604
- Removing the processor port network control carrier(s) on page 605
- Installing the expansion control carrier and port carrier on page 606
- Installing IPSI and maintenance circuit packs on page 607
- Connecting the CAT5 cables to the IPSI circuit packs on page 607
- Installing Expansion Interface circuit packs on page 607
- Powering up the media gateway(s) on page 608

Post-migration administration:
- Assigning IP addresses to the IPSI circuit packs on page 608
- Verifying IPSI translations on page 610
- Verifying IPSI connectivity on page 611
- Enabling control of IPSI(s) on page 611
- Verifying customer’s data on page 612
High-level overview

Note:
This section applies to migrating non-Linux-based servers to the S8700 Series Multi-Connect configuration only.

The migration from a DEFINITY Server R to the Avaya S8700 Series Media Server Multi-Connect configuration may be done in stages. The order in which these stages are completed, in most cases, depends on the resources available, the personnel available to perform them, and the customer’s desire to minimize downtime. There needs to be careful coordination with the customer, as some of the operations required are service affecting.

The recommended process is based on several assumptions:

- The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs are installed ahead of time in the expansion port networks (EPNs) and processor port network (PPN—optional).
- Most PNs converted from a PPN will contain an IPSI, particularly for direct-connect switches.
- The general process is the same regardless of reliability.

The high level stages are:

- Install and configure the S8700 Series Media Server complex.
- Transfer existing DEFINITY translations to Avaya Communication Manager residing on the S8700 Series Media Servers. Add new translations for the IPSI circuit packs.
- Replace expansion interface and maintenance circuit packs in all the existing DEFINITY server port networks (PNs) with upgraded circuit packs (TN570B, vintage 7, or later; TN775D).
- Replace tone clocks with TN2312BP IPSI circuit packs in the designated EPNs and PPN (optional).
- Convert the PPN to a PN.
- Cut over to S8700 Series Media Server control.

- Upgrading firmware (if necessary) on page 613
- Testing the installation on page 613
- Busying out trunks on page 614
- Troubleshooting the migration on page 614
- Returning replaced equipment on page 614
Complete the migration steps, such as enabling alarm reporting and registering the switch.

Test the S8700 Series Media Server Multi-Connect configuration.

The order that the high-level stages are listed above represents a recommended sequence to follow. Some of the stages can be done in a different sequence without causing any negative consequences. Local practice and resource management dictates the actual sequence.

---

### IPSI placement decisions

In a direct-connect switch Avaya installs IPSI(s) in the PPN rather than an EPN because of the fiber connections and administration among the PN(s). If the IPSIs are installed in an EPN in a 3-cabinet switch, you would have to reconnect and readminister the optical fiber connecting the EI circuit packs. In a 2-cabinet switch, this would not be a problem. Even in a CSS switch, installing IPSIs in the PPN is a good idea because it speeds up the switch startup.

You want to put the rest of the IPSIs in as many different cabinets as you can. For example, putting IPSIs in both halves of a dual PN cabinet is not a good idea; if the cabinet dies, you lose 2 IPSI PN(s). However, if in a 10-EPN switch, 7 of the EPNs are DS1-C remoted and the other 3 PN(s) are 1 PPN cabinet and 1 dual PN cabinet, then putting IPSIs in both halves of the dual PN and the converted PPN eliminates running remote IPSI connections.

Installing the IPSIs in the PN(s), including the PPN, ahead of time saves downtime because you can install, connect, and program the IPSIs and test their connectivity to the media server ahead of time. You also can upgrade the firmware on the IPSIs that need it before the actual cutover. Depending on how many IPSIs are installed, this could save a considerable amount of downtime. Installing IPSIs in the PPN and then re-installing them in the new carriers may seem a waste of time, but, again, it allows you to make sure they are working correctly before the cutover.

---

### Installing and configuring the S8700 Series Media Server complex

This stage consists of the physical rack installation of the S8700 Series Media Servers, uninterruptible power supplies (UPSs), Ethernet switches, and connecting cables. After completing the physical installation, the components are configured, the license and Avaya authentication files are installed, and the software is upgraded and patched.

For information on installing the media server complex and configuring the media servers, see *Installing and Configuring an Avaya S8700 Series Media Server* (03-300145).

This stage can be done any time before transferring the existing translations. This stage is not service affecting to the existing DEFINITY server system.
Transferring existing translations

For existing switches equipped with a magneto optical (MO) disk drive, translations can be transferred using an external Magneto Optical disk drive connected to the S8700 Series Media Server. For switches that do not have a MO disk drive connected to the S8700 Series Media Server, you must freeze the translations, send them to STS, and get updated translation files by email.

Perform this stage after the server complex is installed and configured and before the PPN is converted to a PN. Once the translations are copied and saved, you can add the new IPSI translations, making sure that the IPSIs are set to disabled.

This stage is not, in itself, service affecting. However, Avaya recommends that you do this stage just before converting the PPN. If this stage is performed early in the installation process, the likelihood of new translations being added to the existing DEFINITY switch greatly increases, meaning translations would be out of sync. Unless these translations are concurrently entered into Avaya Communication Manager, they will be lost at cutover.

Replacing expansion interface and maintenance circuit packs, if necessary

In PNs that have IPSIs, the maintenance circuit pack needs to be replaced by a TN775D Maintenance (EPN) circuit pack. You may also need to replace the expansion interface (EI) circuit packs; only TN570B, vintage 7, or later work in an S8700 Series Multi-Connect configuration.

You can do this stage at any time before the actual cutover. The maintenance and EI circuit packs are all hot-swappable and can be changed out in the existing DEFINITY switch without powering down the carrier or cabinet.

This stage is service affecting for duplex reliability configurations. As each PN is worked on, it is out of service while the circuit packs are being changed. Service impact can be minimized for high or critical reliability configurations by only working on the circuit packs in the standby carriers (MCC) or cabinets (SCC).

Replacing tone clocks with TN2312BP IPSI circuit packs in the expansion port networks and processor port network (optional)

Some PNs receive IPSI circuit packs. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes the place of the existing TN2182 Tone Clock circuit pack and terminates control communication with the S8700 Series Media Servers. In existing PNs that receive IPSIs, flat ribbon cables run between the IPSIs and the maintenance circuit pack to provide connectivity that is not available via the backplane of older carriers. Once the IPSI circuit packs are installed, you must either program the faceplate so a DHCP server can assign IP addresses
You can accomplish this stage at any time before the actual cutover. The tone clock and IPSI circuit packs are hot-swappable and can be changed out in the existing DEFINITY switch. The IPSI circuit pack provides the same functionality as the tone clock circuit pack. The IPSIs can be connected via CAT5 cable to the media server complex (via Ethernet switch) before the cutover. You can do this while the IPSIs are working as tone clocks in the existing switch. This allows you to test connectivity between the media servers and the IPSIs before the cutover. Even though you are converting the PPN to a PN, it's a good idea to install the IPSIs in the PPN and test connectivity ahead of time. You then re-install the IPSIs in the new carrier(s) after they are installed.

This stage is service affecting for duplex reliability configurations. As each IPSI-equipped PN is worked on, it is out of service while the circuit packs are being changed. Service impact can be minimized for high or critical reliability configurations by only working on the circuit packs in the standby carriers (MCC) or cabinets (SCC).

Converting the processor port network to a port network

This stage consists of replacing the processor carrier A in the PPN with a new expansion control carrier (J58890AF-2 L13). If the PPN has duplicated control carriers (cabinets if SCC), then you also must replace carrier B with a new port carrier (cabinet if SCC).

If you replaced the EIs and maintenance circuit packs and replaced the Tone Clock with an IPSI in the old control carrier, you must reinsert them into the new control carrier. You do not need to reprogram the IPSI. If you have a CSS or ATM, you must move the EIs to positions A01 and B02 (if critical reliability).

You must install and configure the media servers, transfer the translations, and upgrade the existing PNs before performing this stage.

If you want to cutover and have the S8700 Series Media Server control the existing PNs while you convert the PPN, you first must power down the PPN and then enable the IPSIs from the S8700 Series Media Server. Do this only if the customer wants to minimize downtime. If the PPN also contains the switch node carrier(s), then powering down the PPN also takes down the CSS.

This stage is service-affecting for the PPN and, thus, the existing DEFINITY server system. It is out of service while the carriers are changed out, which should take no more than 30 minutes.
Cutting over to S8700 Series Media Server control

Once the PPN is converted and you power it up, you want to cut over to the S8700 Series Media Server. To do this, you must enable the IPSIs on the IP Server Interface (IPSI) System Parameters screen.

This stage is momentarily service affecting as the CSS comes back up and the calls are load-balanced across the IPSIs throughout the port networks.

Completing the migration

This stage includes verifying the customer’s data and upgrading IPSI firmware (if necessary). Alarms are generated if the IPSIs do not have the most current firmware or do not all have the same firmware.

For information on other post-migration tasks, such as clearing alarms, backing up the media servers, enabling alarm reporting, and registering the switch, see *Installing and Configuring an Avaya S8700 Series Media Server* (03-300145) and go to the Completing the installation administration section.

This stage includes clearing alarms, upgrading IPSI firmware (if necessary), backing up the media servers, enabling alarm reporting, and registering the switch. Alarms are generated if the IPSIs do not have the most current firmware or do not all have the same firmware.

This stage must be performed after the actual cutover. However, some parts of this stage (upgrade firmware, register switch) could be done before the cutover.

None of the operations performed in this stage is service affecting. However, if during alarm resolution hardware needs to be replaced, it could result in a service interruption.

Testing the S8700 Series Multi-Connect configuration

This stage involves testing the complete switch and verifying proper operation. Functional call processing is tested, such as station-to-station calls, outgoing calls, incoming calls, and so forth. Various hardware-related testing procedures are provided. These may or may not be performed, depending on whether a given piece of hardware is configured.

Perform the testing procedures after the actual cutover is completed and while completing the migration.

These procedures are not service-affecting. However, replacing hardware to resolve problems encountered may be service-affecting.

*Note:*

You now are ready to begin the migration.
Pre-migration administration

Connecting to the processor

To connect to the processor, complete the following steps:

1. Use the computer used to access the cabinet.
2. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
3. Log in as `craft`.

Verifying administration and system status

You want to check which groups are administered before the migration and compare the list after the migration to make sure they are the same.

To verify administration and system status, complete the following steps:

1. Execute the following commands to see whether the system has administration and system status:
   a. `list config all`
   b. `list trunk`
   c. `list sig`
   d. `list station`
   e. `list dial analysis`
   f. `list vector`
   g. `list vdn`
   h. `list node-names`
   i. `list ip-interfaces`
   j. `display alias station`
   k. `disp sync`
   l. `status health`
   m. `status spe`
   n. `status pnc`
   o. `status sync`
If any command does not complete successfully, escalate the problem immediately. After the migration, check the same administration to be sure that the translations are intact.

__Recording all busyouts__

To record busyouts, complete the following steps:

1. Type `display errors` and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the conversion.

__Note node names and IP addresses__

To record node names and IP addresses, complete the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   **Note:**
   If the existing switch has TN799C C-LAN circuit packs, you must replace them with TN799DP circuit packs.

2. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press Enter to get the IP addresses that match the node names.

4. Write the information down for after the migration.

__Saving translations__

Although the migrated translations are already copied to the S8700 Series Media Server, this step is important in case you need to back out of the migration.

**Note:**

Save translations to disk, optical diskette, or tape.
Migrating a DEFINITY Server R to an S8700 Series Media Server Multi-Connect

To save translations, complete the following step:

1. If this is one DEFINITY Server R, type `save translation` and press Enter to save translations to the hard drive on the DEFINITY Server R.

If this is a duplicated DEFINITY Server R, type `save translation both` and press Enter to save the translations to the hard drive on the DEFINITY Server R.

To copy the translation to a magneto optical (MO) disk drive, type `save translation both removable` and press Enter.

If you do not have a magneto optical (MO) disk drive, type `save translation tape` and press Enter to save the translations to a tape.

Either a Command successfully completed message displays or all error messages are logged.

---

**Migrating translations**

This section provides information for migrating translation files from the existing switch to the new S8700 Series Media Server.

---

**Accessing the media server**

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the active media server.
2. Launch the Web browser.
3. In the Address field, type `192.11.13.6` and press Enter to bring up the login Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.

6. Click **Launch Maintenance Web Interface** to get to the Main Menu.

### Checking system status

To check the system status, perform the following steps:

1. Under Server, click **Status Summary**.
2. Verify the following information
   - Duplication link between the S8700 Series Media Servers is Up
   - Standby shadowing is On
   - Standby Refreshed is Yes

### Verifying license file

To verify the license file, perform the following steps:

1. Under Security, click **License File**.
2. Verify that the **CommunicaMgr License Mode**: field shows **Normal**.
Transferring translations

Note:
If the translations are sent to the STS group as tape, the translations are returned via email with instructions.

To transfer translations to the media server, see From a magneto optical disk on page 562—if the existing switch has an optical drive.

Once the translations are input and copied to the hard drive, you must administer the TN2312BP IP Server Interface circuit packs.

Disconnecting from the active media server
1. Unplug the laptop from the Services port on the back of the active media server.

Connecting to the standby media server
1. Connect to the Services port on the back of the standby media server.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages.
6. Click Busy Out.

Disconnecting from the standby media server
1. Unplug the laptop from the Services port on the back of the standby media server.

Connecting to the active media server

Note:
If the PCMCIA memory card is currently plugged into the bottom slot on the active media server, remove it. The MOST tool will be plugged into the bottom slot.

1. Open a DOS Command window (Start > Run > Command)

If connected to the Services port (2):
2. Type telnet 192.11.13.6 and press Enter.
3. At the login prompt log in as craft or dadmin.
Migrating translations

If connected through the customer network:

4. Type `telnet ipaddress` and press **Enter**, where `ipaddress` is the active media server IP address

5. At the login prompt log in as **craft** or **dadmin**.

**Copying translation files from MO disk to the active S8700 Series Media Server**

1. Type `stop -acf` and press **Enter** to stop Communication Manager call processing.

2. Type `sudo readmo -e` and press **Enter** to enable MO read.

3. Be sure that the Magneto Optical drive is powered up. There is a power switch located on the rear of the drive. For the media servers, see Magneto optical drive connection to media servers on page 586.

4. S8700 MC: Insert the MOST Tool flash adapter into the bottom PCMCIA port of the media server.
   
   S8710: Insert the MOST Tool USB cable into a USB port on the back of the media server.

5. Insert the removable media (optical disk) into the external MO drive.

6. Type `sudo mo -1` and press **Enter** to list the contents of the MO disk. Note the file sizes of Translation and TranslationA.

    **Note:**
    The next step copies the translation files from the MO disk to `/etc/opt/defty` on the media server hard drive.

7. Type `sudo readmo` and press **Enter** to copy the translations from the MO disk to the media server. The light on the front of the MO drive will flash rapidly. Reading the translation files takes from 40 seconds to one minute.

8. Type `cd /etc/opt/defty` and press **Enter** to change to the translations directory.

9. Type `ls -l` and press **Enter** to verify that files `xln1` and `xln2` are the same size as files Translation and TranslationA from step 6.

10. If the file sizes are different repeat steps 6 through 9. If the file sizes are still different, escalate the problem through the appropriate channels.

11. S8700 MC: Eject the flash adapter from the media server. Unplug the MOST tool from the USB port.

12. Type `sudo readmo -d` and press **Enter** to disable MO read.

13. Type `start -ac` and press **Enter** to restart Communication Manager call processing.

14. Remove the cartridge from the MOST Tool.

15. Remove power to the MOST Tool.
Disconnecting from the active media server

1. Unplug the laptop from the Services port on the back of the active media server.

Connecting to the standby media server

1. Connect to the Services port on the back of the standby media server.
2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Pages**.
5. Under Server, click **Release Server**.
6. Click **Release**.
Disconnecting from the standby media server
1. Unplug the laptop from the Services port on the back of the standby media server.

Connecting to the active media server
1. Connect to the Services port on the back of the active media server.
2. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
3. Login as craft or dadmin.

Installing the translations
1. Type reset system 4 and press Enter.
To add the IPSI translations before saving translations, go to Adding IPSI translations to Communication Manager on page 590.

Restoring data for a migration
The following procedure assumes the technician has already saved the customer’s conversion files (sent from the Avaya STS team) on the technician’s laptop.

Busying out the standby media server
1. Connect to the Services port on the back of the standby media server.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages.
6. Click Busy Out.

Accessing the active media server from your laptop
1. Connect a crossover cable to the Services port on the back of the active media server.
2. Launch the Web browser.
3. Type 192.11.13.6 in the Address bar and press Enter to bring up the logon Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.
**Busying out the active media server**
1. Connect to the Services port on the back of the active media server.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages.
6. Click Busy Out.

**Verifying license file**
2. Verify that the CommunicaMgr License Mode: field shows Normal.

**Copying translation files to media server**
1. Under Miscellaneous, click Download Files.
2. Click Browse and select the file saved on the Services laptop.
3. Click Download to place the file on the media server.
Restoring translation files
1. Under Data Backup/Restore, click View/Restore Data.
2. Select Local Directory and click View. The field automatically displays the default directory.
3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.
4. Click Restore to restore the translation files.
5. Click Restore Status.
6. Select the first file, then scroll down and click Review Status to see the results of the restore.
   When done, the screen displays Restore is finished.
If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

Connecting to the active media server
1. Connect to the Services port on the back of the active media server.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Interface.
5. Under Server, click Status Summary to verify that the standby media server has been refreshed. Do not continue until the standby media server has been refreshed.
6. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
7. Login as craft or dadmin.

Installing the translations
1. Type reset system 4 and press Enter.
2. Log into a SAT session.
3. Type list station and press Enter.
   Verify you have the current translations.
Go to Adding IPSI translations to Communication Manager on page 590 to add the IPSI translations before saving translations.

Connecting to the standby media server
1. Connect to the Services port on the back of the standby media server.
2. Launch a Web browser.
3. Log in as **craft** or **dadmin**.
4. Click **Launch Maintenance Web Pages**.
5. Under Server, click **Release Server**.
6. Click **Release**.

---

**Adding IPSI translations to Communication Manager**

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press **Enter**

```
change system-parameters ipserver-interface                       Page 1 of 1
IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS

SERVER INFORMATION

  IPSI Host Name Prefix: neptune
  Primary Control Subnet Address: 198.152.254. 0 *
  Secondary Control Subnet Address: 198.152.255. 0 *

OPTIONS

  Switch Identifier: A
  IPSI Control of Port Networks: disabled
```

2. Verify that the **Primary Control Subnet Address** and **Secondary Control Subnet Address** (if equipped) fields are correct.

   The subnet addresses must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; the Communication Manager call processing software does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** and/or **Secondary Control Subnet Address** fields is not correct, it must be changed on the media servers. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.
3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the **IPSI Control of Port Networks**: field is set to **disabled**.

5. Press **Enter** to submit the form.

**Note:**
The information you provide differs, depending on whether the IPSIs get static addresses or they are assigned automatically through DHCP.

### Setting IPSI duplication (high/critical reliability only)

To set IPSI duplication, perform the following steps:

1. Type `change system-parameters duplication` and press **Enter**

   ```
   change system-parameters duplication
   DUPLICATION RELATED SYSTEM PARAMETERS
   
   Enable Operation of PNC Duplication? y
   Enable Operation of IPSI Duplication? y
   ```

2. Set the **Enable Operation of IPSI Duplication?** field to **y**.

3. Press **Enter** to effect the changes.

### Adding IPSI information

To add IPSI information, perform the following steps:

1. Type `add ipserver-interface PNumber` where `PNumber` is the port network number and press **Enter** to add the IPSI circuit pack information.
2. When using a DHCP server, verify that the fields associated with the Primary IPSI and Secondary IPSI (if equipped) are populated with default data. The Host: and DHCP ID: fields are set by the DHCP server.

<table>
<thead>
<tr>
<th>Primary IPSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: 1AXX</td>
</tr>
<tr>
<td>Host: cd</td>
</tr>
<tr>
<td>DHCP ID: ipsi-A01a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary IPSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: 1B01</td>
</tr>
<tr>
<td>Host: ipsi-A09b</td>
</tr>
<tr>
<td>DHCP ID: ipsi-A01b</td>
</tr>
</tbody>
</table>

3. Verify the correct setting for the IP Control? field
   - If IPSIs are in IP-connected PNs, then set the IP Control? field to y.
   - If IPSIs are in fiber-connected PNs (CSS or ATM), then set the IP Control? field to y.
   - If IPSIs are in fiber-connected PNs (direct-connect), then set the IP Control? field to y unless there is more than 1 IPSI. Then set the IP Control? field for the second IPSI to n.
   - If an IPSI is in a DS1-C–remoted PN, then set the IP Control? field to n to maintain the 5:1 ratio of IPSIs to PNs. If the field is set to y, then the system decreases the ratio to 2:1.

4. If you need high or critical reliability, set the Administer secondary ip server interface board field to y.
   When set to y, the system displays Secondary IPSI area.

5. Verify that all the other fields are populated.

6. Press Enter to effect the changes.

7. Repeat steps 1 through 5 for each port network.
Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.

<table>
<thead>
<tr>
<th>change system-parameters maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAINTENANCE-RELATED SYSTEM PARAMETERS</td>
</tr>
</tbody>
</table>

   **OPERATIONS SUPPORT PARAMETERS**
   
   CPE Alarm Activation Level: none

   **SCHEDULED MAINTENANCE**
   
   Start Time: 22 : 00  
   Stop Time: 06 : 00  
   Save Translation: daily

   Update LSPs When Saving Translations: y  
   Command Time-out (hours): 2  
   Control Channel Interchange: no  
   System Clocks/IPSI Interchange: no

2. In the **CPE Alarm Activation Level** field, select none (default), warning, minor, or major, depending on the level the customer wants.

Back up translations

To back up translations, perform the following steps:

1. Format an unformatted CompactFlash card.

   **Note:**

   For the following step, if you are not sure the card is formatted, then format the card.

2. S8700 MC: Insert the PCMCIA memory card (Local PC card) in the bottom PCMCIA slot of the *active* media server.

   S8710: Insert a formatted CompactFlash card in the compact flash drive attached to a USB port.

3. Launch a Web browser.

4. Log in as craft or dadmin.

5. Click **Launch Maintenance Web Pages**.

6. Under Data Backup/Restore, click **Backup Now**.
7. Select the data sets and the backup method.

If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.

8. Click **Start Backup** to begin the back up process.

---

**Upgrading and administering the existing hardware**

This section covers upgrading and administering existing port networks (PNs) in preparation for migrating to the S8700 Series Multi-Connect configuration for both multi-carrier cabinets (MCCs) and single carrier cabinets (SCCs). This consists of:

- Placing the CAT5 cables between the Ethernet switches and PNs
- Changing out expansion interface circuit packs (if necessary)
- Changing out tone clocks and maintenance boards for IP Server Interfaces (IPSI) and new maintenance boards
- Connecting the IPSI boards to the Ethernet Switches.
- Assigning IDs or static IP addresses to the IPSI boards

This can all be done while the existing switch is in service. However, with duplex reliability configurations, short service interruptions are encountered as the tone clock is changed out in IPSI-controlled PNs.

**Note:**

If you are installing IPSIs in the existing PPN, you must move all the new circuit packs to the new carrier (cabinet) during the PPN conversion.

This section assumes that the S8700 Series Media Servers have the latest software release, the media server complex is installed, configured, and operational.

This section covers the following tasks:

- **Connecting media server and IPSI cables to Ethernet switch(es)** on page 595
- **Upgrading hardware in each port network** on page 595
- **Installing Expansion Interface circuit packs** on page 603
- **Post-migration administration** on page 608
Connecting media server and IPSI cables to Ethernet switch(es)

See *Quick Start for Hardware Installation: Avaya S8700 Series Media Server* (555-245-703) for a connectivity guide.

Each TN2312BP IP Server Interface (IPSI) circuit pack must have a CAT5 Ethernet cable back to the Ethernet switch. Cables for IPSIs located in PN carrier A are GREEN. Cables for IPSIs located in PN carrier B (high or critical reliability) are RED.

Each media server is connected to the Ethernet switch(es) that comprise Control Network A (CNA) in duplex configurations (GREEN cable).

Each media server is connected to each Ethernet switch(es) that comprise Control Network B (CNB) in high and critical reliability configurations (RED cable).

Upgrading hardware in each port network

In IPSI-controlled PN you must replace the existing tone-clock and maintenance circuit packs with a TN2312BP IPSI circuit pack and TN775D or later maintenance circuit pack. You must also replace TN570 (R) Expansion Interface circuit packs with TN570B, vintage 7, or later circuit packs.

- **Replacing tone clocks with IPSI circuit packs and replace maintenance circuit packs** on page 595
- **Assigning IP addresses to the IPSI circuit packs** on page 608
- **Completing circuit pack replacement** on page 603

Replacing tone clocks with IPSI circuit packs and replace maintenance circuit packs

**Note:**

Before beginning, read this procedure and **Assigning IP addresses to the IPSI circuit packs** on page 608 to familiarize yourself with them. If using DHCP server, setting the Switch ID and Cabinet number on the IPSI circuit pack can be done at initial installation. However, there are certain sequences that need to be completed prior to a predetermined time-out interval. If the Switch ID and Cabinet number are not set when the circuit pack is first plugged in it can be done later but it will require that the circuit pack be reseated. This could result in an additional service interruption in a duplex reliability configurations.
Determining IPSI placement in port networks

Determine which PNs get the IPSI circuit packs. Not all PNs require them. Port networks that do not house an IPSI have an Expansion Interface (EI) circuit pack that controls the PN. These EI-controlled PNs are assigned automatically to an IPSI at switch initialization. The balancing of EI-controlled PNs amongst available IPSIs is also done automatically.

Also, with Release 2.0 or later of Communication Manager, you are allowed to put an IPSI in a DS1-C-remoted port network.

The following are the rules and guidelines for placement of IPSI circuit packs.

Rules:

● When placing an IPSI in a DS1-C-remoted port network, make sure that the non-remoted IPSI is administered first and that the IP Control field is set to y. The IPSI in the DS1-C-remoted PN does not have to be set to no. However, if it is set to y, customers need to run Ethernet from the IPSI and there is limited control (1:2 versus 1:5).

● The reference IPSI (the one whose serial number is used in the license file) is placed in the PN with the shortest Ethernet connection to the media servers. This minimizes the amount of data network that could fail between the IPSI and the media servers causing the system to switch to No License mode.

⚠️ Important:

If you are using an Enterprise Survivable Server (ESS) and want a given PN to failover, that PN must have an installed PN. For more information, see the Avaya Enterprise Survivable Servers User Guide (03-300428).

● The minimum number of port networks that require an IPSI is determined by the following formulas:
  - Duplex (Direct Connect) reliability: 1 IPSI controls up to 3 PNs. If 1 or 2 PNs and a G650 media gateway PN is added, it will have an IPSI. If 2 IPSIs are used, the IP control for 1 is yes and the other is no.
  - Duplex (CSS or ATM) reliability: Total Number of PNs divided by 5 (if not an integer, round up), plus one.
  - High/Critical reliability: Total Number of PNs divided by 5 (if not an integer, round up). For each IPSI-connected PN, you need 2 IPSIs.

Guidelines:

● On large configurations that contain multiple switch node carriers, IPSIs should be placed as evenly as possible among the switch nodes. Use the list fiber all command to determine which port networks are connected to which switch node.
Duplex reliability configuration

To set up a duplex configuration:

⚠️ **WARNING:**

The following procedure affects service when the circuit packs are being switched out. Coordinate this activity with the customer to minimize disruption of customer activities.

**Note:**

You can replace the maintenance circuit pack with the TN775D Maintenance (EPN) (if necessary) and the TN2182 Tone Clock circuit packs with the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs and program them ahead of time. All the circuit packs being replaced are hot-swappable, so you do not need to power down the PNs or the carrier.

1. Type `list configuration control` and press **Enter** to determine which PNs have TN2182 Tone Clock circuit packs and in which cabinets they are in.

2. In cabinets receiving an IPSI circuit pack, remove the TN2182 Tone Clock circuit pack from the expansion control carrier and place it in an antistatic carrier.

**Note:**

If present, do not remove the TN771 Maintenance/Test circuit pack.

3. Remove the TN775B/C Maintenance (EPN) circuit pack from the expansion control carrier and place it in an antistatic carrier.

4. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot.

5. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the TN 2312BP circuit pack. See [Figure 41: Ribbon Cable Connector](#) on page 598.
6. Push the tabs on the ends of the connector inward to lock the connector in place.

7. Thread the ribbon through the slot on the front panel. See Figure 42: Duplex Reliability Ribbon Cable Connection on page 599. (Duplex reliability in the S8700 Series Multi-Connect configuration consists of the two media servers.)

8. Insert the TN775D maintenance circuit pack part way into the MAINTENANCE slot.

9. Attach the other end of the short ribbon cable to the top connector on the component side of the TN775D circuit pack (red line on the bottom). See Figure 42: Duplex Reliability Ribbon Cable Connection on page 599.
Figure 42: Duplex Reliability Ribbon Cable Connection

10. Push the tabs on the ends of the connector inward to lock the connector in place.
11. Thread the ribbon through the slot on the front panel.
12. Fully insert the circuit packs.
13. Program the TN2312BP just inserted. See Assigning IP addresses to the IPSI circuit packs on page 608.
High or critical reliability configuration

To set up a high or critical reliability configuration, perform the following steps:

**Note:**

You can replace the maintenance circuit pack with the TN775D Maintenance (EPN) (if necessary) and the TN2182 Tone Clock circuit packs with the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs and program them ahead of time. All the circuit packs being replaced are hot-swappable, so you do not need to power down the PNs or the carrier.

These procedures assume that the tone-clock and maintenance circuit packs are in the A and B carriers. If one of them is in the E or D rather than B carrier, then the ribbon cable is not necessary.

1. Determine which PNs get the IPSI circuit packs. See Determining IPSI placement in port networks on page 596.

   **Note:**
   
   Not every port network requires an IPSI circuit pack.

2. Type `list configuration control` and press `Enter` to determine which port networks have TN2182 Tone Clock circuit packs, which media gateway they are in.

3. Type `status port-network number` where `number` is the number of the port network and press `Enter` to determine the active tone clock.

4. If needed, type `set tone-clock cabinet carrier` where `cabinet` is 1-64 and `carrier` is A-E and press `Enter` to make the tone clock in the B carrier active.

5. Remove the TN2182 Tone Clock circuit pack from the standby carrier (A) and place it in an antistatic carrier.

   **Note:**
   
   If present, do not remove the TN771 Maintenance/Test circuit pack.

6. Remove the TN775B/C Maintenance/Test circuit pack from standby carrier (A) and place it in an antistatic carrier.

7. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot on the standby carrier (A).

8. With the red line on the bottom (pin 1), attach one end of the short ribbon cable to the connector on the component side of the circuit pack.

9. Push the tabs on the ends of the connector inward to lock the connector in place. See Figure 41: Ribbon Cable Connector on page 598.

10. Thread the ribbon through the slot on the front panel.

11. Insert the TN775D Maintenance (EPN) circuit pack part way into the MAINTENANCE slot in carrier A.
12. Attach the other end of the short ribbon cable to the top connector on the component side of the circuit pack (red line on the bottom). See Duplex Reliability Ribbon Cable Connection on page 599.

13. Push the tabs on the ends of the connector inward to lock the connector in place.

14. Thread the ribbon through the slot on the front panel.

15. Fully insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack only.

16. Assign the Switch and Cabinet ID to the TN2312BP Internet Protocol Server Interface (IPSI) just inserted. See Assigning IP addresses to the IPSI circuit packs on page 608.

17. Type set tone-clock cabinet carrier and press Enter to force a tone-clock interchange.

18. Type status port-network number where number is the number of the port network and press Enter to verify the service state of the tone-clock. Verify that the YELLOW LED on the IPSI circuit pack is flashing.

19. Remove the TN2182 Tone Clock circuit pack from the new standby carrier (B) and place in an antistatic carrier.

20. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack part way into the TONE-CLOCK slot on the standby carrier (B).

21. With the red line on the bottom (pin 1), attach one end of the long ribbon cable to the connector on the component side of the circuit pack.

22. Push the tabs on the ends of the connector inward to lock the connector in place. See Ribbon Cable Connector on page 598.

23. Thread the ribbon through the slot on the front panel.


25. Fully insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.

26. Program the TN2312BP Internet Protocol Server Interface (IPSI) just inserted. See Assigning IP addresses to the IPSI circuit packs on page 608.

27. Fully insert the TN775D Maintenance (EPN) circuit pack after both IPSIs have been programmed.
Figure 43: High/Critical Reliability Ribbon Cable Connection
Connecting the CAT5 cables to the IPSI circuit packs

See Quick Start for Hardware Installation: Avaya S8700 Series Media Servers (555-245-703) for a connectivity guide.

To connect the CAT 5 cables to the IPSI circuit packs, perform the following step:

1. Connect the GREEN CAT5 cable to the IPSI in the A carrier or cabinet in the A position.
2. If high or critical reliability, connect the RED CAT5 cables to the IPSIs in the B carrier or cabinet in the B position.

Installing Expansion Interface circuit packs

To install the Expansion Interface circuit packs:

Note:
If the existing PPN has TN570 Expansion Interface circuit packs, you must replace them with a TN570B Expansion Interface, vintage 7, or later circuit pack.
If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN570 Expansion Interface circuit packs with a TN570D Expansion Interface or later circuit pack.

1. Remove the existing circuit pack and place in an antistatic container.
2. Insert the TN570B Expansion Interface, vintage 7, or later EI circuit pack into the EXPN INTFC slots (01, 02).
3. Repeat steps 1 and 2 for each PN that does not have TN570B Expansion Interface, vintage 7, or later EI circuit packs.

Completing circuit pack replacement

For duplex reliability configurations, repeat Duplex reliability configuration on page 597 for each port network that will receive a TN2312BP.

Migration tasks

Perform these tasks to convert a processor port network to a port network (MCC).
Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 604 for a list of hardware.

Table 11: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J58890-AF-2 L13</td>
<td>Port network expansion control carrier</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>CFY1B current limiter (CURL) (can reuse existing one)</td>
<td>1</td>
</tr>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter)</td>
<td>1</td>
</tr>
<tr>
<td>108865775</td>
<td>TN775D Maintenance circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700168727</td>
<td>Short ribbon cable—from maintenance board to IPSI in MCC1 A carrier</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td></td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td></td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td></td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td></td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td></td>
</tr>
<tr>
<td>105679542</td>
<td>Z100C Apparatus blank (optional)</td>
<td></td>
</tr>
</tbody>
</table>
Removing the processor port network control carrier(s)

To remove the processor port network control carrier(s), complete the following steps:

1. Label both ends of all the cables being removed from the control carriers. They may be reused.

⚠️ **CAUTION:**

All active calls processed through this port network are dropped when the cabinet is powered down. All trunks and lines within this cabinet are down until the cabinet is powered up and the media server controls the port network.

**Note:**

If the switch is equipped with Power Failure Transfer (PFT) units using ground start trunks, you must install a temporary ground wire to the PFT units to allow them to operate properly when the cabinet is powered down. The AUX cable, that normally supplies the ground, will be disconnected.

2. Connect a 10 AWG (#25) (2.6 mm²) wire to pin 49 of the connecting block associated with the power failure transfer panel.

3. Route the opposite end of the wire to an approved ground and connect.

**Note:**

You can cut over to having the media server control the other PNs at this time. Only cut over at this time if you are not installing IPSI(s) in the PPN or the customer wants to minimize down time. To cut over, go to Enabling control of IPSI(s) on page 611.

4. Power down the cabinet.

5. Disconnect the cables on the front of carrier A.
   - Power
   - ATM Fiber (optional)

6. Remove all circuit packs from carrier A and place in an antistatic carrier.

7. Remove power supplies from carrier A.

8. Remove faceplate from carrier A.

9. Disconnect the cables on the back of carrier A.
   - TDM/LAN (reused)
   - ICC-A, -B (Replaced)
   - AUX Cable (reused)
   - 9-pin D subminiature plug on right side of cabinet from the P1 connector on carrier (reused)
10. Remove the Current Limiter (CURL) unit from the back of the carrier. (Can be reused.)
11. Remove all carrier grounds.
12. Remove carrier A from the cabinet.
13. Repeat for carrier B (H/C only).

---

**Installing the expansion control carrier and port carrier**

To install the expansion control carrier and port carrier, complete the following steps:

1. Install the J58890-AF-2 L13 PN expansion control carrier in position A.
2. Install a J58890BB -4 L14 Port carrier in position B.
3. Connect the carrier grounds.
4. Install the CFY1B Current Limiter (CURL) unit on the back of control carrier A. (Reuse the CURL.)
5. Connect the cables to the back of the carriers.
   - TDM/LAN
     - Carrier A to D (if equipped)
     - Carrier A to B
     - Carrier B to C (if equipped)
   - ICC cables from carrier A to B (if required).
     - Duplex reliability: No ICC cables required
     - High reliability: ICCA and ICCD
     - Critical reliability: ICCA, ICCB, ICCC, and ICCD
   - AUX cable to carrier A.
   - 9-pin D subminiature plug to P1 connector on each carrier.
6. Install faceplates on carrier A.
7. Install faceplates on carrier B.
8. Install power supplies in carrier A.
9. Install power supplies in carrier B.
Installing IPSI and maintenance circuit packs

If this PN does not contain an IPSI, install the tone clock and maintenance circuit packs, as required, then continue with Installing Expansion Interface circuit packs on page 607.

If this PN contains one or two IPSIs, reinstall the IPSIs and the ribbon cables as you did before. See Duplex reliability configuration on page 597.

Although you can use ICCs for connectivity (ICCC and ICCD) for consistency, just use the ribbons on the front.

Connecting the CAT5 cables to the IPSI circuit packs

See Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703) and the job aid titled Cabling Guide — MCC1 and SCC1 Media Gateway (555-245-771) for a connectivity guide.

To connect the CAT 5 cables to the IPSI circuit packs, complete the following step:

1. Connect the GREEN CAT5 cable to the IPSI in the A carrier.

Installing Expansion Interface circuit packs

Note:

If the existing PPN has a TN570 Expansion Interface circuit packs, you must replace them with a TN570B, vintage 7, or higher circuit pack.

If this switch is to be used with an Enterprise Survivable Server (ESS), replace the TN570 Expansion Interface circuit packs with a TN570D or later Expansion Interface circuit pack.

To install the Expansion Interface circuit packs, complete the following steps:

1. Remove the existing circuit pack and place in an antistatic container.

2. Insert the TN570B, vintage 7, or higher EI circuit packs into the EXPN INTFC slots (A01, B02).

If reusing the EI circuit pack in a CSS:

3. Move the EI/ATM Interface circuit pack from location C02 to location A01.

4. If critical reliability, move the EI/ATM Interface circuit pack from location D02 to location B02.
If using ATM EIs:

5. Run the fiber optic cables for the expansion interface circuit packs through the media gateway, using a cable pass-thru kit.

6. Connect the fiber optic cables to the connector on the front of the expansion interface circuit packs. LED lights up when properly connected.

---

**Powering up the media gateway(s)**

To power up the media gateway(s), complete the following steps:

1. Power up the media gateways.
2. Remove the emergency ground wire if used.

---

**Post-migration administration**

---

**Assigning IP addresses to the IPSI circuit packs**

The IP server interface circuit packs get IP addresses using the dynamic host configuration protocol (DHCP).

**Using DHCP addressing**

For the TN2312BP IPSI circuit packs to get IP addresses dynamically, you must first assign the switch ID (A through J) and the cabinet number (01 through 64) to each IPSI circuit pack. For G650 Media Gateways, a cabinet is defined as one or more media gateways connected by TDM cable, which is called a G650-rack-mount-stack.
Administering the location assignment

1. Fully insert the TN2312BP IPSI circuit pack. If necessary, reseat the circuit pack to begin the programming sequence.

   **Note:**
   You must start the following steps within 5 seconds after inserting the circuit pack.

2. Insert a pen, golf tee, or similar object (no graphite pencil) into the recessed push button switch.

   **Note:**
   If you pass up the letter or number that you want, you must either cycle through all the letters or numbers to get to the one you want or reinsert (reseat) the circuit pack and begin again.

Setting the switch ID

If you have only one system, the default switch ID is A. The second system would be B and so on. The switch ID is not the media gateway or carrier letter.

1. While the display is flashing, press the button until the switch ID (A through J) shows on the top character of the LED display. When the correct letter shows, stop. It will flash a few times (5 seconds) then stop. The next character down begins to flash.
Setting the cabinet number

The number to program is the cabinet number not the port network number. If you have more than one IPSI in a cabinet, they all have the same cabinet number.

1. While the first digit of the number is flashing, press the button until the correct tens digit (0 through 6) shows on the display. When the correct digit shows, stop. It flashes a few times then stops (5 seconds). The second digit begins flashing.

2. While the second digit is flashing, press the button until the correct units digit (0 through 9) shows on the display. When the correct digit shows, stop. The digit flashes a few times then stops (5 seconds).

3. All segments of the display goes dark for one second, and then the Switch ID and media gateway stack number is displayed in the top three characters of the LED display. A "V" is shown in the fourth character (bottom) of the display. When the DHCP server assigns an address to the IPSI, the center of the "V" is filled in to form the bottom half of a diamond in the display.

For duplicated control network, repeat these steps for the second IPSI in the cabinet.

Verifying IPSI translations

To verify IPSI translations:

1. Type list ipserver-interface and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, complete the following steps:

1. Under Diagnostics, click Ping.
2. Select IPSIs with cab number (1–99) ___ carrier number ___ . Fill in the blanks with the correct cabinet and carrier numbers.
3. Click Execute Ping.
4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), complete the following steps:

Note: Make sure the IPSI(s) have the same, current firmware.

⚠️ CAUTION: This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type change system-parameters ipserver-interface and press Enter.

2. Set the IPSI Control of Port Networks: field to enabled.
3. Type save translation and press Enter.
4. Press Enter to effect the change.

All the port networks are now controlled by the media server.
Verifying customer’s data

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the converted cabinets (chassis). Verify that the information is correct.

Verifying circuit pack locations

To verify circuit pack locations, complete the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the converted cabinets shows.

2. Type `display cabinet number`, where `number` is the cabinet number of the converted cabinet, and press Enter. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the rack (G600 or G650).

Verifying circuit pack insertion

To verify circuit pack insertion, complete the following steps:

1. Type `list configuration all` and press Enter to see the list of all the slot locations.

2. Verify that the circuit pack code and vintage number appears in the Code and Vintage fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, complete the following steps:

1. Type `display ip-interfaces` and press Enter to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.

2. Type `list node-names` and press Enter to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.
To check link status, complete the following steps:

1. Type `display communication-interface links` and press `Enter`. Write down all enabled links.
2. Type `status link number` where `number` is `1-99` and press `Enter`.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

---

### Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page ([http://avaya.com/support](http://avaya.com/support)) and click Downloads.

First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.
2. Verify the firmware release for the TN2312BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see [Upgrading firmware on the IPSIs](#) on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see [Upgrading firmware on the IPSIs](#) on page 219.

---

### Testing the installation

Test the complete installation. See *Testing the media server installation* which is part of the *Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.*
Busying out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you've determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating a DEFINITY ONE/S8100 to an S8700 Series Media Server IP-Connect

These procedures are for migrating from an existing DEFINITY ONE/S8100 switch to the Avaya S8700 Series Media Servers IP-Connect configuration.

You can only migrate a DEFINITY ONE/S8100 to an Avaya S8700 or S8710 Media Server IP-Connect configuration.

When migrating an existing DEFINITY ONE/S8100, you use one TN2312BP IPSI circuit pack to control the port network. You also replace the processor circuit pack with the IPSI.

This is a service-affecting event.

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media servers and, if Avaya supplied, the Ethernet switch(es), and uninterruptible power supplies (UPSs) in the 4-post, 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703)
- Replace the Tone-Clock with the IPSI circuit pack
- Move circuit packs to the G650 Media Gateway
- Connect the media servers to the media gateways
- Enable control of the IPSIs, switching control to the media servers
- Complete the post-migration administration
Migration paths

DEFINITY ONE/S8100 and their releases that can be migrated to the S8700 or S8710 Media Server IP-Connect configurations include DEFINITY Release 6 - 10, MV Release 1.1 and 1.2, and release 1.3 - 3.0 of Communication Manager.

When migrating, in most cases, all the translations must be re-entered. However, when migrating from an S8100, the only supported method of moving translations is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.

Prerequisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 617 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:** on page 619 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.
- **Pre-site migration checklist** on page 623 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 623 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 624 - these are the documents Avaya recommends that you have on hand for the migration.
# Tasks checklists

## Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that your Services laptop has the appropriate hardware.</td>
<td>Correct hardware components include:</td>
</tr>
<tr>
<td></td>
<td>● 40 MB available disk space</td>
</tr>
<tr>
<td></td>
<td>● direct Ethernet cable</td>
</tr>
<tr>
<td></td>
<td>● serial cable and adapter</td>
</tr>
<tr>
<td></td>
<td>● RS-232 port connector</td>
</tr>
<tr>
<td></td>
<td>● Network interface card (NIC) with a 10/100 BaseT Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)</td>
</tr>
<tr>
<td></td>
<td>● CD-ROM drive</td>
</tr>
<tr>
<td>Verify that your Services laptop has the appropriate software.</td>
<td>Correct software components include:</td>
</tr>
<tr>
<td></td>
<td>● Windows 2000/XP operating system</td>
</tr>
<tr>
<td></td>
<td>● Terminal emulation program: HyperTerminal or other</td>
</tr>
<tr>
<td></td>
<td>● TCP/IP networking software: bundled with Windows OS</td>
</tr>
<tr>
<td></td>
<td>● Web browser: Internet Explorer 5.0 or later</td>
</tr>
<tr>
<td>Obtain appropriate logins and passwords for all equipment and software.</td>
<td>For example, obtain logins and passwords for the following components:</td>
</tr>
<tr>
<td></td>
<td>● Media Server</td>
</tr>
<tr>
<td></td>
<td>● Media Gateway</td>
</tr>
<tr>
<td></td>
<td>● auxillary equipment</td>
</tr>
<tr>
<td></td>
<td>● Communication Manager</td>
</tr>
<tr>
<td></td>
<td>These logins and passwords include the customer’s equipment.</td>
</tr>
<tr>
<td>Obtain the serial number of the Media Servers, if necessary.</td>
<td>You need a new RFA license file and authentication file.</td>
</tr>
<tr>
<td></td>
<td>You need the serial number from the reference IPSI and the SAP order number to generate a new license file.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  ● service packs  
  ● license file  
  ● authentication file  
  ● firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see *Migration paths* on page 616.
When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Find out which adapters and cables are reusable.</td>
</tr>
<tr>
<td></td>
<td>The following items are <em>not</em> reusable:</td>
</tr>
<tr>
<td></td>
<td>● C-LAN 259A adapter; must use adapter for IP Media Processor for 100 Mbps speed</td>
</tr>
<tr>
<td></td>
<td>● CAT3 cable used with C-LAN; must use CAT5 or better for 100 Mbps speed.</td>
</tr>
</tbody>
</table>

**CAUTION:**

The following 7 tasks must be done before freezing translations or saving translations to an MO disk that will be used to read translations directly into a media server.

**CAUTION:**

Be sure to do this step before freezing translations.

Verify that the functions of the TN577 Packet Gateway and TN726B Data Line circuit packs (BX.25 links and mode 2 data modules) were converted to work through the C-LAN circuit packs.

Note that the TN577 circuit pack cannot be reused.

Use Avaya Terminal Emulator or Avaya Site Administration to perform a `list node-names` command.

**CAUTION:**

Be sure to do this step before freezing translations.

Verify that the peripherals (CMS, INTUITY) and Distributed Communication Service (DCS) links have been assigned node names and have an Ethernet address assigned.
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>Remove all Mode II Data Modules prior to converting to the S8700 Series Media Server.</td>
</tr>
<tr>
<td></td>
<td>The S8700 Series Media Server does not support the following data modules:</td>
</tr>
<tr>
<td></td>
<td>● System Ports</td>
</tr>
<tr>
<td></td>
<td>● PDMs (7400/8400 Data Modules)</td>
</tr>
<tr>
<td></td>
<td>● PktGateway</td>
</tr>
<tr>
<td></td>
<td>● Pkt Data Dataline</td>
</tr>
<tr>
<td></td>
<td>● Modem Pool</td>
</tr>
<tr>
<td></td>
<td>● System CDR PDMs</td>
</tr>
<tr>
<td></td>
<td>● System Features Printer PDMs</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>The TN750 Announcement circuit packs are not supported in the S8700 Series Media Servers.</td>
</tr>
<tr>
<td></td>
<td>The announcements translations will come over to the S8700 Series Media Server; however, the circuit pack locations need to be changed to the TN2501AP Voice Announcement over LAN (VAL) circuit pack.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE:</strong></td>
</tr>
<tr>
<td></td>
<td>All announcement names must be unique on a TN2501AP Voice Announcement over LAN (VAL) circuit pack; the announcement names cannot contain any spaces/blanks or the following characters (./:*?&lt;&gt;).</td>
</tr>
<tr>
<td></td>
<td>Type <code>change announcements</code> to change any names and port locations.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>You first may need to change the System Parameters Maintenance screen before you can make any changes to the IP Services screen.</td>
</tr>
<tr>
<td></td>
<td>On the IP Services screen in the Service Type field, remove Alarm1 and Alarm2.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>On the Trunk Group screen, change the Measured field from measured to none.</td>
</tr>
<tr>
<td></td>
<td>This indicates trunk group measurement reports are not required. Remember to re-measure trunk groups. Type <code>list trunk-group</code> to get a list of trunk groups that are &quot;measured&quot; and need to be changed.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>If none, check the Attendant Console screens for any buttons with <strong>attd-qcalls</strong> or <strong>attd-qtime btns</strong>. Remove these if the 0 is not assigned as <strong>attd</strong>.</td>
</tr>
<tr>
<td>Check the Dial Plan (or Dial Plan Analysis Table screen depending on the release) screen for 0 assigned as <strong>attd</strong>.</td>
<td></td>
</tr>
<tr>
<td>Replace any TN775/B/C Maintenance circuit packs.</td>
<td>Replace the TN775/B/C Maintenance circuit pack with TN775D circuit packs in any EPNs that will have an IPSI.</td>
</tr>
</tbody>
</table>
| About 2 weeks before the migration, freeze the translations.  
  - Collect the translations locally via a spare flash card. | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
  STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. |
| Verify that you have the appropriate logins and passwords to access the media servers and server complex components. | When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer's media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response.  
  This unique craft password remains valid until it is changed by installing a new authentication file. |
| Copy the translation file to a directory on the Services laptop. | Files normally are in the 1-4 megabytes range. |

3 of 3
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 E1 circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>

On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| S8710:  
Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured. | Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit. |
| You may need to move the UPSs and Ethernet switch(es) from the 2-post rack. | Make sure you have:  
- a crosspoint (Phillips) screwdriver  
- rail kits for a 4-post rack for the UPSs  
- cage nuts to attach the screws to the rack, if necessary  
- and at least 2 people to lift the equipment |
| Verify that cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs is labeled and that appropriate connectivity is provided. | The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs runs from the control hardware rack to the port networks. |
| Verify that you have the license file from RFA and that it includes the right to use (RTU) feature and applicable hardware parts in the existing system and any hardware being added as part of the migration. |  
| Verify that you have the Avaya authentication file from RFA. |

**Documentation checklist for migrations**

For a list of documents that Avaya recommends you have on hand for the migration, see **Resources** on page 30.

Additional documentation needed.
This section assumes that the media server complex is installed, configured, and operational.

This section cover changing an existing processor port network (PPN) to a port network (PN).

⚠️ **CAUTION:**

This procedure is service-affecting. When the PPN is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor tone clock circuit pack with an IPSI circuit pack
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

**Note:**

The new license file should be installed on the media server before making the change.

Perform these tasks to convert a processor port network to a port network (CMC).
Pre-migration administration:

- Connecting to the processor on page 627
- Note node names and IP addresses on page 627
- Saving translations on page 628
- Note IP settings on page 628

Migration tasks:

- Accessing the media server on page 629
- Checking system status on page 629
- Verifying license file on page 630
- Restoring data for a migration (S8710 only) on page 630
- Adding IPSI translations to Communication Manager on page 634
- Backing up translations on page 637
- Verifying hardware on page 638
- Changing the control cabinet to a port network on page 639
- Powering down the control cabinet on page 639
- Replacing the processor circuit pack on page 640
- Replacing the TN799C C-LAN circuit pack (if necessary) on page 640
- Installing TN771 Maintenance/Test on page 640
- Connecting to the media server on page 641
- Post-migration administration on page 641

Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 641
- Verifying IPSI translations on page 646
- Verifying IPSI connectivity on page 647
- Enabling control of IPSI(s) on page 647
- Verifying customer’s data on page 648
- Upgrading firmware (if necessary) on page 649
- Testing the installation on page 650
- Busying out trunks on page 650
- Troubleshooting the migration on page 650
- Returning replaced equipment on page 650
Pre-migration administration

This is a service-affecting event. The CMCs must be powered down to replace the processor. Before powering down the cabinets, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

Note:
You need a crossover cable to connect your Services laptop directly to the processor.

1. Connect the Services laptop directly into the Avaya IP600 processor circuit pack
   - If a TN795 Processor circuit pack, place the NIC card into the slot on the faceplate.
   - If a TN2314 Processor circuit pack, plug the RJ45 connector directly into the RJ45 jack on the faceplate.

2. Start a terminal emulation application or Avaya Site Administration.

3. Log in as lucent3.

Note node names and IP addresses

To record node names and IP addresses, perform the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

   Note:
   If the existing switch has a TN799C C-LAN circuit pack, you’ll need to replace it with a TN799DP circuit pack.

2. Type `display ip-interfaces` and press `Enter` to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.

3. Type `list node-names` and press `Enter` to get the IP addresses that match the node names.

4. Write the information down for after the migration.
Saving translations

This step is important in case you need to back out of the migration. You may want to print out the translations for reference.

To save translations, perform the following step:

1. Type `save translation` and press Enter to save translations to the system disk.

Either a Command successfully completed message displays or all error messages are logged.

Note IP settings

Note the IP settings assigned to the processor as they may be used for the Avaya S8700 or S8710 Media Server. Verify against the filled-out Electronic Preinstallation Worksheet.

The following administration is done on the Services laptop connected to the processor circuit pack using telnet. To note the IP settings, perform the following steps:

1. Select Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press Enter to access the Avaya IP600.
3. Log in as `lucent3` to get to the LAC prompt.
4. Type `bash` and press Enter to start a BASH session.
5. Type `setip` and press Enter to display the current list of IP settings. You will see the following information:
   - cust: IPaddress, subnet mask, gateway
   - dns: server name, domain name, 2 DNS server IP addresses
   - wins: 2 WINS server IP addresses
   - ras: 1 remote access server IP address
6. Write down this information, exactly as it appears.

You must record this information exactly as it appears here. You cannot miss any periods, commas, or other punctuation marks. Record information in lower or upper case as it appears.

Migrating translations

This section provides information for migrating translation files from the existing switch to the S8700 Series Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Checking system status

To check the system status, perform the following steps:

1. Under Server, click Status Summary.
2. Verify the following information:
   - Duplication link between the S8700 or S8710 Media Servers is Up
   - Standby shadowing is On
   - Standby Refreshed is Yes
Verifying license file

To verify the license file, perform the following steps:
2. Verify that the CommunicaMgr License Mode: field shows Normal.

Restoring data for a migration (S8710 only)

The following procedure assumes the technician has already saved the customer's conversion files (sent from the Avaya STS team) on the technician's laptop.

Accessing the media server from your laptop
1. Connect a crossover cable to the Services port on the back of the media server.
2. Launch the Web browser.
3. Type 192.11.13.6 in the Address bar and press Enter to bring up the logon Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Verifying license file
2. Verify that the MultiVantage License Mode: field shows Normal.
Copying translation files to media server

1. Under Miscellaneous, click **Download Files**.
2. Click **Browse** and select the file saved on the Services laptop.
3. Click **Download** to place the file on the media server.
Restoring translation files

1. Under Data Backup/Restore, click View/Restore Data.

2. Select Local Directory and click View. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.

4. Click Restore to restore the translation files.

5. Click Restore Status.

6. Select the first file, then scroll down and click Review Status to see the results of the restore.

   When done, the screen displays Restore is finished.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

Connecting to the standby media server

S8700 only

1. Connect to the Services port on the back of the standby media server.

2. Launch a Web browser.

3. Log in as craft or dadmin.
Migrating translations

4. Click Launch Maintenance Web Pages.
6. Click Release.

Connecting to the active media server

S8700 only

1. Connect to the Services port on the back of the active media server.

2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Interface.
5. Under Server, click Status Summary to verify that the standby media server has been refreshed. Do not continue until the standby media server has been refreshed.
6. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
7. Login as craft or dadmin.

Installing the translations

1. Type reset system 4 and press Enter.
2. Return the STS-supplied PCMCIA flash card to Avaya.

Go to Adding IPSI translations to Communication Manager on page 634 to add the IPSI translations before saving translations.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter.

   ```
   change system-parameters ipserver-interface
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS

   SERVER INFORMATION

   IPSI Host Name Prefix:
   Primary Control Subnet Address: 172.22.0.0*
   Secondary Control Subnet Address: . . .

   OPTIONS

   Switch Identifier: A
   IPSI Control of Port Networks: disabled
   
   NOTE: * indicates data changed on the server
   ```

2. Verify that the **Primary Control Subnet Address** and **Secondary Control Subnet Address** (if equipped) fields are correct.

   The subnet addresses must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the **Subnet Address** field means that although a subnet address is displayed, it is not the correct one; the Communication Manager call processing software does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the **Primary Control Subnet Address** and/or **Secondary Control Subnet Address** fields is not correct, it must be changed on the media servers. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click **Configure Server** to change the media server configuration. Then return here to perform this step.

3. Verify that the **Switch Identifier** field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.
4. Verify that the **IPSI Control of Port Networks**: field is set to **disabled**.

5. Press **Enter** to submit the form.

**Note:**

The information you provide differs, depending on whether the IPSIs get static addresses or they are assigned automatically through DHCP.

## Adding IPSI information

To add IPSI information, perform the following steps:

1. Type `add ipserver-interface PNumber` where `PNumber` is the port network number and press **Enter** to add the IPSI circuit pack information.

2. When using static addressing, in the **Host**: field, type in the IP address for the IPSI in the port network listed in the **Location**: field.

3. Verify the correct setting for the **IP Control?** field

   - If IPSIs are in IP-connected PNs, then set the **IP Control?** field to `y`.
   - If IPSIs are in fiber-connected PNs (CSS or ATM), then set the **IP Control?** field to `y`.
   - If IPSIs are in fiber-connected PNs (direct-connect), then set the **IP Control?** field to `y` unless there is more than 1 IPSI. Then set the **IP Control?** field for the second IPSI to `n`.
   - If an IPSI is in a DS1-C–remoted PN, then set the **IP Control?** field to `n` to maintain the 5:1 ratio of IPSIs to PNs. If the field is set to `y`, then the system decreases the ratio to 2:1.
4. Verify that all the other fields are populated.
5. Press **Enter** to effect the changes.
6. Repeat steps 1 through 5 for each port network.

**Setting IPSI duplication (high/critical reliability only)**

To set IPSI duplication, perform the following steps:

1. Type `change system-parameters duplication` and press **Enter**

   ```
   change system-parameters duplication  
   DUPLICATION RELATED SYSTEM PARAMETERS
   
   Enable Operation of IPSI Duplication? y
   ```

2. Set the **Enable Operation of IPSI Duplication?** field to **y**.
3. Press **Enter** to effect the changes.

**Setting alarm activation level**

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press **Enter**.

   ```
   change system-parameters maintenance  
   MAINTENANCE-RELATED SYSTEM PARAMETERS
   
   OPERATIONS SUPPORT PARAMETERS
   CPE Alarm Activation Level: none
   
   SCHEDULED MAINTENANCE
   Start Time: 22 : 00  
   Stop Time: 06 : 00  
   Save Translation: daily  
   Update LSPs When Saving Translations: y  
   Command Time-out (hours): 2  
   Control Channel Interchange: no  
   System Clocks/IPSI Interchange: no
   ```

2. In the **CPE Alarm Activation Level** field, select **none** (default), **warning**, **minor**, or **major**, depending on the level the customer wants.
Backing up translations

To back up translations, perform the following steps:

1. S8710: Place a formatted flash card in the compact flash drive attached to a USB port.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages.
5. Under Data Backup/Restore, click Backup Now.
6. Select the data sets and the backup method.

   If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.

7. Click **Start Backup** to begin the backup process.

Migration tasks

Perform these tasks to convert a processor port network to a port network (CMC).

**Note:**
If you want to make the switch high reliability, then you cannot reuse the Compact Modular Cabinets (CMCs). You must install Avaya G650 Media Gateways and move all the circuit packs to the G650.

**Note:**
The new license file should be installed on the media server before making the conversion.
Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 638 for a list of required hardware.

Table 12: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter—optional)</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>TN2302AP IP Media Processor circuit pack or</td>
<td>1 or more</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2602AP IP Media Resource 320 circuit pack</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>TN799DP C-LAN circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/MedRes</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>106689516</td>
<td>TN771 Maintenance/Test circuit pack (optional)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108772583</td>
<td>TN2501AP Voice Announcement over LAN circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>ED-1E568-70G1 DEFINITY Audix Slim board (optional)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note:

If customers are currently using the Audix feature on the S8100 Media Server, they need to purchase a separate Audix switch. The TN795 or TN2314 Processor circuit pack containing the Audix feature is being replaced with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.
Note:
Customers also need to add an ED-1E568-70G1 DEFINITY Audix Slim board and a TN2501AP Voice Announcement over LAN (VAL) circuit pack for announcements.

Changing the control cabinet to a port network

To change the control cabinet to a port network, you must:

- Replace the TN795 or TN2314 Processor circuit pack with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack.
- Connect a CAT5 straight-through cable from the IPSI to the media server through the customer’s network.

Note:
If replacing a TN795 Processor circuit pack, you may not need the TN744D/E Call Classifier-Detector circuit pack. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack has call classifier functionality; however, increased voice and data traffic may require the TN744D/E Call Classifier-Detector circuit pack.

Note:
If you have a TN799C or earlier C-LAN circuit pack, you must replace it with a TN799DP C-LAN circuit pack.

Powering down the control cabinet

To power down the control cabinet, perform the following steps:

⚠️ CAUTION:
Make sure you have done the pre-migration administration. See Pre-migration administration on page 627.

1. Press and hold the shutdown button on the processor’s faceplate until the shutdown process starts.

Make sure you see the green light indicating the switch has shut down before continuing.

⚠️ DANGER:
The latch on the power supply acts as the DC power switch and only removes DC power from the backplane, not the AC power. To remove the AC power from the cabinet, pull the AC power cord from the back of the cabinet.

2. Power down the cabinet by unplugging the power cord from the back of the cabinet.
Replacing the processor circuit pack

To replace the processor circuit pack, perform the following steps:

1. Remove the entire processor circuit pack and place it in an antistatic carrier or bag. You want it intact if you need to back out of the migration.
2. Remove the octopus cable from the connector associated with slot 2 on the connector panel.
3. Install the IPSI adapter to the connector associated with slot 2 on the connector panel.
4. Install the maintenance cable onto the 9-pin D-sub connector on the Adapter. This cable is for emergency transfer and "auxsig" signal.

Note:
The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes up only one slot.

5. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack into slot 2.
6. Attach the new label above the circuit pack slots.

Replacing the TN799C C-LAN circuit pack (if necessary)

To replace the TN799C C-LAN circuit pack, perform the following steps:

1. Remove the TN799C Control-LAN (C-LAN) circuit pack and place it in an antistatic carrier or bag.
2. Insert the new TN799DP C-LAN circuit pack into the same slot.
3. Replace the 259A adapter and CAT3 cable on the connector panel with the Amphenol adapter used for the TN2302AP IP Media Processor circuit pack and a CAT5 cable.

Installing TN771 Maintenance/Test

Install a TN771 Maintenance/Test circuit pack in slot 1. There must be one TN771 Maintenance/Test circuit pack per location. Maintenance functions were present on the TN798 or TN2402 Processor circuit pack and must be replaced by the TN771. This carrier does not have a TN775 Maintenance (EPN) dedicated slot.

If the cabinet does not have a TN2302AP IP Media Processor, then you must install one in slot 10. See the Adding New Hardware book, Install and Administer IP Connectivity Hardware section.
Connecting to the media server

Connect one end of the GREEN CAT5 straight-through cable to the Ethernet switch on the customer’s network and the other to the IPSI adapter on the back of the media gateway.

Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 44: Connecting directly to the IPSI.

Figure 44: Connecting directly to the IPSI

Note: Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click Start > Run to open the Run dialog box.
2. Type command and press Enter to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:

- The command line prompt when the cache has been cleared.
- The phrase: **The specified entry was not found.**

This is returned when the specified IP address does not currently appear in the ARP cache.

**Logging into the IPSI**

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press **Enter** to open the Telnet window and connect to the IPSI

   Prompt = [IPSI]:

   **Note:**

   While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press **Enter** (abbreviated command = `il`).

   **Note:**

   The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.

   Prompt = [IPADMIN]:

**Setting the control interface**

The following steps set the control interface.

1. Type `show control interface` and press **Enter**.

2. Type `show port 1` and press **Enter** to see the current settings.
3. Type `set control interface ipaddr netmask` and press Enter, where `ipaddr` is the customer-provided IP address and `netmask` is the customer-provided subnet mask.

```
TNE2SIPS IPSI IP Admin Utility
Copyright Avaya Inc, 2000, 2001, All Rights Reserved

[IPSI]: ipsilogin
Login: craft
Password:

[IPADMIN]: set control interface 195.9.70.77 255.255.255.0
WARNING!! The control network interface will change upon exiting IPADMIN

[IPADMIN]: show control interface
Control Network IP Address - 195.9.70.77
Control Network Subnetmask = 255.255.255.0
Control Network Default Gateway = None
IPSI is not configured for DHCP IP address administration

[IPADMIN]: 
```

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to 192.11.13.6 and login.

6. Enter `show control interface`. The IP address, subnet mask, and default gateway information are displayed. Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to 192.11.13.6 and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press Enter to see the changes.

### Setting the VLAN and diffserv parameters

The following steps sets the VLAN and diffserv parameters.

1. Log back in as `craft`.

2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**
Use Help to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.
5. Enter `quit` to exit.

⚠️ **Important:**
Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

### Resetting the IPSI

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press Enter
   Answer Y to the warning.

**Note:**
Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

**Note:**
Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.
3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See Figure 45: LED display showing that the IPSI has a static IP address)
Note:
Clear the ARP cache on the laptop before connecting to another IPSI. If the cache is not cleared the laptop appears to hang and does not connect to the next IPSI. See Clearing the ARP cache on page 642.

4. Repeat for each IPSI circuit pack.

Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click Ping.

2. Select IPSIs with cab number (1-99) ____ carrier number _____. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click Execute Ping.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

Note:

Make sure the IPSI(s) have the same, current firmware.
CAUTION:
This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type `change system-parameters ipserver-interface` and press Enter.

   ```shell
   change system-parameters ipserver-interface
   IP SERVER INTERFACE (IPSI) SYSTEM PARAMETERS
   SERVER INFORMATION

   IPSI Host Name Prefix:
   Primary Control Subnet Address: 172.22.0.0*
   Secondary Control Subnet Address: . . .

   OPTIONS

   Switch Identifier: A
   IPSI Control of Port Networks: enabled
   
   NOTE: * indicates data changed on the server
   ```

2. Set the **IPSI Control of Port Networks**: field to **enabled**
3. Press Enter to effect the change.
4. Type `save translation` and press Enter.

All the port networks are now controlled by the media server.

---

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the converted cabinets (chassis). Verify that the information is correct.

**Verifying circuit pack locations**

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press Enter to view all the "cabinets." Verify that the cabinet number assigned to the converted cabinets shows.
2. Type **display cabinet number**, where *number* is the cabinet number of the converted cabinet, and press **Enter**. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of media gateways in the rack (G600 or G650).

**Verifying circuit pack insertion**

To verify circuit pack insertion, perform the following steps:

1. Type **list configuration all** and press **Enter** to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the **Code** and **Vintage** fields rather than "no board", indicating that a circuit pack was not installed in that slot.

**Verifying IP addresses**

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type **display ip-interfaces** and press **Enter** to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type **list node-names** and press **Enter** to verify that the node names exist and the IP addresses match up with the node names.

**Check link status**

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type **display communication-interface links** and press **Enter**. Write down all enabled links.
2. Type **status link number** where *number* is 1-99 and press **Enter**.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

**Upgrading firmware (if necessary)**

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page ([http://avaya.com/support](http://avaya.com/support)) and click **Downloads**.
First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.

2. Verify the firmware release for the TN2312BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating an Avaya IP600/S8100 to an S8700 Series Media Server IP-Connect

These procedures are for migrating from an existing Avaya IP600/S8100 IP-Connect switch to the Avaya S8700 Series Media Servers IP-Connect configuration.

You can only migrate an IP600/S8100 to an Avaya S8700 or S8710 IP-Connect configuration.

When migrating an existing Avaya IP600/S8100, you use one TN2312BP IPSI circuit pack to control the port network. You replace the processor circuit pack with the IPSI in the cabinet in the A position.

This is a service-affecting event.

---

Basic migration steps

When migrating from DEFINITY platforms:

- Install the media servers and, if Avaya supplied, the Ethernet switch(es), and uninterruptible power supplies (UPSs) in the 4-post, 19-inch rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703)

- Replace the Tone-Clock with the IPSI circuit pack

- Connect the media servers to the media gateways

- Enable control of the IPSIs, switching control to the media servers

- Complete the post-migration administration

---

Migration paths

DEFINITY IP600/S8100 and their releases that can be migrated to the S8700 or S8710 Media Server IP-Connect configurations include DEFINITY Release 9 - 10, MV Release 1.1 and 1.2, and CM Release 1.3 - 3.0.

When migrating, in most cases, all the translations must be re-entered. However, when migrating from an S8100, the only supported method moving translations is to freeze the translations and send them to Avaya’s Software Technical Support (STS) group. STS then returns the translation reports and translation files through email to the project manager before the migration. Contact the STS scheduling desk at 720-444-9418 for forms and additional information.
Pre-requisites

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 653 - these are tasks that must be performed before going on site.

- **Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration**: on page 655 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY switch.

- **Pre-site migration checklist** on page 659 - these are tasks that must be completed before going on site.

- **On site migration checklist** on page 659 - these are tasks that must be performed on site before beginning the migration.

- **Documentation checklist for migrations** on page 660 - these are the documents Avaya recommends that you have on hand for the migration.
Tasks checklists

Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that your Services laptop has the appropriate hardware.</td>
<td>Correct hardware components include:</td>
</tr>
<tr>
<td></td>
<td>● 40 MB available disk space</td>
</tr>
<tr>
<td></td>
<td>● direct Ethernet cable</td>
</tr>
<tr>
<td></td>
<td>● serial cable and adapter</td>
</tr>
<tr>
<td></td>
<td>● RS-232 port connector</td>
</tr>
<tr>
<td></td>
<td>● Network interface card (NIC) with a 10/100 BaseT Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)</td>
</tr>
<tr>
<td></td>
<td>● CD-ROM drive</td>
</tr>
<tr>
<td>Verify that your Services laptop has the appropriate software.</td>
<td>Correct software components include:</td>
</tr>
<tr>
<td></td>
<td>● Windows 2000/XP operating system</td>
</tr>
<tr>
<td></td>
<td>● Terminal emulation program: HyperTerminal or other</td>
</tr>
<tr>
<td></td>
<td>● TCP/IP networking software: bundled with Windows OS</td>
</tr>
<tr>
<td></td>
<td>● Web browser: Internet Explorer 5.0 or later</td>
</tr>
<tr>
<td>Obtain appropriate logins and passwords for all equipment and software.</td>
<td>For example, obtain logins and passwords for the following components:</td>
</tr>
<tr>
<td></td>
<td>● Media Server</td>
</tr>
<tr>
<td></td>
<td>● Media Gateway</td>
</tr>
<tr>
<td></td>
<td>● auxillary equipment</td>
</tr>
<tr>
<td></td>
<td>● Communication Manager</td>
</tr>
<tr>
<td></td>
<td>These logins and passwords include the customer’s equipment.</td>
</tr>
<tr>
<td>Obtain the serial number of the Media Servers, if necessary.</td>
<td>You need a new RFA license file and authentication file.</td>
</tr>
<tr>
<td></td>
<td>You need the serial number from the reference IPSI and the SAP order number to generate a new license file.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  ● service packs  
  ● license file  
  ● authentication file  
  ● firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out Electronic Preinstallation Worksheet (EPW)</td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

Pre-migration setup

Note:
The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:
- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email

For additional information, see Migration paths on page 651.
When you are migrating from a DEFINITY switch, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| ✓ Find out which adapters and cables are reusable. | The following items are *not* reusable:  
  ● C-LAN 259A adapter; must use adapter for IP Media Processor for 100 Mbps speed  
  ● CAT3 cable used with C-LAN; must use CAT5 or better for 100 Mbps speed. |

**CAUTION:**
If you are going to use the MOST Tool, the following 8 tasks must be done *before* freezing translations or saving translations to an MO disk that will be used to read translations directly into a media server.

If you are going to use STS for translation conversion, go to Replace any TN775/B/C maintenance circuit packs. on page 657.

**CAUTION:**
Be sure to do this step before freezing translations.

Remove all Mode II Data Modules prior to converting to the S8700 Series Media Server.  
The S8700 Series Media Server do not support the following data modules:  
  ● System Ports  
  ● PDMs (7400/8400 Data Modules)  
  ● PktGateway  
  ● Pkt Data Dataline  
  ● Modem Pool  
  ● System CDR PDMs  
  ● System Features Printer PDMs
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>The announcements translations will come over to the S8700 Series Media Server; however, the circuit pack locations need to be changed to the TN2501AP Voice Announcement over LAN (VAL) circuit pack. <strong>NOTE:</strong> All announcement names must be unique on a TN2501AP Voice Announcement over LAN (VAL) circuit pack; the announcement names cannot contain any spaces/blanks or the following characters (/:*?&lt;&gt;). Type <code>change announcements</code> to change any names and port locations.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>You first may need to change the System Parameters Maintenance screen before you can make any changes to the IP Services screen.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>This indicates trunk group measurement reports are not required. Remember to re-measure trunk groups. Type <code>list trunk-group</code> to get a list of trunk groups that are “measured” and need to be changed.</td>
</tr>
<tr>
<td><strong>CAUTION:</strong> Be sure to do this step before freezing translations.</td>
<td>If none, check the Attendant Console screens for any buttons with <code>attd-qcalls</code> or <code>attd-qtime btns</code>. Remove these if the 0 is not assigned as <code>attd</code>.</td>
</tr>
<tr>
<td>Replace any TN775/B/C maintenance circuit packs.</td>
<td>Replace with TN775D circuit packs in any EPNs that will have an IPSI.</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| About 2 weeks before the migration, freeze the translations.  
  - Collect the translations locally via a spare flash card. | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
  STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician. |
| Verify that you have the appropriate logins and passwords to access the media servers and server complex components. | When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer’s media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response.  
  This unique craft password remains valid until it is changed by installing a new authentication file. |
| Copy the translation file to a directory on the Services laptop. | Files normally are in the 1-4 megabytes range. |
Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>✔ Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minihardwarevintages.pdf).</td>
</tr>
<tr>
<td>✔ Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>✔ Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>✔ Replace TN570 EI circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>

On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded.</td>
<td>See the job aid titled Approved Grounds (555-245-772)</td>
</tr>
<tr>
<td>✔ Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs.</td>
<td>The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided.</td>
</tr>
<tr>
<td>✔ Verify that you have all necessary equipment onsite.</td>
<td>See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware.</td>
</tr>
</tbody>
</table>

When you are on site for a migration from a DEFINITY switch, complete the following additional tasks before beginning the migration:
## Task Description

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the open, customer-supplied, EIA 310D (or equivalent) standard 4-post, 19-inch (48-centimeter), equipment rack is properly installed and solidly secured.</td>
<td>Make sure that the screws that come with the rack are there. Make sure that the rail kit for the Avaya-supplied UPS is installed on the rack or available for installation. For information on installing the rail, see the documentation that comes with the rail kit.</td>
</tr>
<tr>
<td>Verify that cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs is labeled and that appropriate connectivity is provided.</td>
<td>The TN2312BP Internet Protocol Server Interface (IPSI) circuit packs runs from the control hardware rack to the port networks.</td>
</tr>
<tr>
<td>Verify that you have the license file from RFA and that it includes the licensed features.</td>
<td></td>
</tr>
<tr>
<td>Verify that you have the Avaya authentication file from RFA.</td>
<td></td>
</tr>
</tbody>
</table>

### Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.

Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager (555-233-504)</td>
<td>Provides information on network connectivity.</td>
</tr>
</tbody>
</table>
Migration tasks

This section assumes that the media server complex is installed, configured, and operational.

⚠️ CAUTION:

This procedure is service-affecting. When the processor port network (PPN) is powered down, all calls are dropped. Service returns when the media server takes control of the IPSIs.

The general procedures are as follows:

- Powering down the processor gracefully - pre-conversion administration
- Replacing the processor or tone clock circuit pack with an IPSI circuit pack
- Replacing the WP cables with twisted pair cables
- Connecting the IPSI circuit pack to the Ethernet switch on the customer’s network
- Assigning an IP address to the IPSI circuit pack

Note:

The new license file should be installed on the media server before making the change.

Perform these tasks to change a processor port network to a port network (IP600).

Perform these tasks to convert a processor port network to a port network (IP600).

Pre-migration administration:

- Connecting to the processor on page 663
- Note node names and IP addresses on page 663
- Saving translations on page 664
- Note IP settings on page 664
Migration tasks:

- Accessing the media server on page 665
- Checking system status on page 665
- Verifying license file on page 666
- Restoring data for a migration (S8710 only) on page 666
- Adding IPSI translations to Communication Manager on page 670
- Backing up translations on page 673
- Verifying hardware on page 673
- Changing the IP600 control chassis to a port network on page 675
- Powering down the control chassis on page 675
- Replacing I/O cables on page 676
- Replacing the processor circuit pack on page 678
- Replacing the TN799C C-LAN circuit pack (if necessary) on page 679
- Installing TN771 Maintenance/Test on page 679
- Connecting to the media server on page 679
- Post-migration administration on page 679

Post-migration administration:

- Assigning IP addresses to the IPSI circuit packs on page 679
- Verifying IPSI translations on page 684
- Verifying IPSI connectivity on page 685
- Enabling control of IPSI(s) on page 685
- Verifying customer’s data on page 686
- Upgrading firmware (if necessary) on page 687
- Testing the installation on page 688
- Busying out trunks on page 688
- Troubleshooting the migration on page 688
- Returning replaced equipment on page 688
Pre-migration administration

This is a service-affecting event. The IP600 chassis must be powered down to replace the processor. Before powering down the chassis, you must do some pre-migration administration.

Connecting to the processor

To connect to the processor, perform the following steps:

1. Connect the Services laptop directly into the Avaya IP600 processor circuit pack
   - If a TN795 Processor circuit pack, place the NIC card into the slot on the faceplate.
   - If a TN2314 Processor circuit pack, plug the RJ45 connector directly into the RJ45 jack on the faceplate.

2. Start a terminal emulation application or Avaya Site Administration.
3. Log in as lucent3.

Note node names and IP addresses

To record node names and IP addresses, perform the following steps:

1. Note the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs. You want to make sure they are the same after the migration.

2. Type display ip-interfaces and press Enter to get the node names for the TN2302AP IP Media Processor and TN799C/DP C-LAN circuit packs.
3. Type list node-names and press Enter to get the IP addresses that match the node names.
4. Write the information down for after the migration.
Saving translations

This step is important in case you need to back out of the migration. You may want to print out the translations for reference.

To save translations, perform the following step:

1. Type `save translation` and press `Enter` to save translations to the system disk.

   Either a **Command successfully completed** message displays or all error messages are logged.

Note IP settings

Note the IP settings assigned to the processor as they may be used for the Avaya S8700 or S8710 Media Server. Verify against the filled-out *Electronic Preinstallation Worksheet*.

The following administration is done on the Services laptop connected to the processor circuit pack using telnet. To note the IP settings, perform the following steps:

1. Select **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter** to access the Avaya IP600.
3. Log in as **lucent3** to get to the LAC prompt.
4. Type **bash** and press **Enter** to start a BASH session.
5. Type **setip** and press **Enter** to display the current list of IP settings. You will see the following information:

   - cust: IPaddress, subnet mask, gateway
   - dns: server name, domain name, 2 DNS server IP addresses
   - wins: 2 WINS server IP addresses
   - ras: 1 remote access server IP address

6. Write down this information, *exactly* as it appears.

   You must record this information exactly as it appears here. You cannot miss any periods, commas, or other punctuation marks. Record information in lower or upper case as it appears.

Migrating translations

This section provides information for migrating translation files from the existing switch to the S8700 or S8710 Media Server.
Accessing the media server

To access the media server, perform the following steps:

1. Connect to the Services port (2) on the back of the media server.
2. Launch the Web browser.
3. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Checking system status

To check the system status, perform the following steps:

1. Under Server, click Status Summary.
2. Verify the following information:
   - Duplication link between the S8700 or S8710 Media Server is Up
   - Standby shadowing is On
   - Standby Refreshed is Yes
Verifying license file

To verify the license file, perform the following steps:

2. Verify that the CommunicaMgr License Mode: field shows Normal.

Restoring data for a migration (S8710 only)

The following procedure assumes the technician has already saved the customer’s conversion files (sent from the Avaya STS team) on the technician’s laptop.

Accessing the media server from your laptop

1. Connect a crossover cable to the Services port on the back of the media server.
2. Launch the Web browser.
3. Type 192.11.13.6 in the Address bar and press Enter to bring up the logon Web page.
4. Log in as craft or dadmin.
5. When asked Do you want to suppress alarms?, select yes.
6. Click Launch Maintenance Web Interface to get to the Main Menu.

Verifying license file

2. Verify that the MultiVantage License Mode: field shows Normal.

Copying translation files to media server

1. Under Miscellaneous, click Download Files.
2. Click **Browse** and select the file saved on the Services laptop.

3. Click **Download** to place the file on the media server.
Restoring translation files

1. Under Data Backup/Restore, click View/Restore Data.

2. Select Local Directory and click View. The field automatically displays the default directory.

3. Select the first file (the latest file should be at the top of the list), then select Force restore if server name mismatch and Force restore if backup version mismatch.

4. Click Restore to restore the translation files.

5. Click Restore Status.

6. Select the first file, then scroll down and click Review Status to see the results of the restore.

   When done, the screen displays Restore is finished.

If the restore process fails, you get an error message stating the reason for the failure. If that happens, then the translation file is not restored. Resolve the reason for the failure and restart the process.

Connecting to the standby media server

S8700 only

1. Connect to the Services port on the back of the standby media server.

2. Launch a Web browser.

3. Log in as craft or dadmin.
Migrating translations

4. Click Launch Maintenance Web Pages.
6. Click Release.

Connecting to the active media server

S8700 only
1. Connect to the Services port on the back of the active media server.

2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Interface.
5. Under Server, click Status Summary to verify that the standby media server has been refreshed. Do not continue until the standby media server has been refreshed.
6. Open a SAT session using Native Configuration Manager or Avaya Site Administration.
7. Login as craft or dadmin.

Installing the translations
1. Type reset system 4 and press Enter.
2. Return the STS-supplied PCMCIA flash card to Avaya.

Go to Adding IPSI translations to Communication Manager on page 670 to add the IPSI translations before saving translations.
Adding IPSI translations to Communication Manager

To add IPSI translations to Communication Manager, perform the following steps:

1. Type `change system-parameters ipserver-interface` and press Enter.

2. Verify that the Primary Control Subnet Address and Secondary Control Subnet Address (if equipped) fields are correct.

   The subnet addresses must match the most significant 3 octets (the first 3 groups of digits in the subnet address) of the Server IP address filled in on the control network entry from the filled-out Electronic Preinstallation Worksheet (EPW).

   An Asterisk (*) to the right of the Subnet Address field means that although a subnet address is displayed, it is not the correct one; the Communication Manager call processing software does not have the subnet information. After verifying the displayed information, submit this form with or without changes to update the Communication Manager with the correct subnet information.

   **CAUTION:**

   If the information displayed in the Primary Control Subnet Address and/or Secondary Control Subnet Address fields is not correct, it must be changed on the media servers. Use the Maintenance Web Interface; under Server Configuration and Upgrades, click Configure Server to change the media server configuration. Then return here to perform this step.

3. Verify that the Switch Identifier field is set correctly for this installation. It is critical that the correct Switch Identifier is entered here before TN2312 IPSI circuit packs are administered.

4. Verify that the IPSI Control of Port Networks: field is set to disabled.
5. Press `Enter` to submit the form.

**Note:**
The information you provide differs, depending on whether the IPSIs get static addresses or they are assigned automatically through DHCP.

### Adding IPSI information

To add IPSI information, perform the following steps:

1. Type `add ipserver-interface PNnumber` where `PNnumber` is the port network number and press `Enter` to add the IPSI circuit pack information.

2. When using static addressing, in the **Host:** field, type in the IP address for the IPSI in the port network listed in the **Location:** field.

<table>
<thead>
<tr>
<th>add ipserver-interface 4</th>
<th>Page 1 of 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP SERVER INTERFACE (IPSI) ADMINISTRATION - PORT NETWORK 4</td>
<td></td>
</tr>
</tbody>
</table>

#### Primary IPSI

- **Location:** 1A01
- **Host:** 172.22.22.174
- **DHCP ID:** ipsi-A01a
- **Socket Encryption?** n
- **Enable QoS?** n

#### Secondary IPSI

- **Location:** 1B01
- **Host:** 172.22.22.175
- **DHCP ID:** ipsi-A01b

**S8700 only**

3. Verify the correct setting for the **IP Control?** field

   - If IPSIs are in IP-connected PNs, then set the **IP Control?** field to `y`.
   - If IPSIs are in fiber-connected PNs (CSS or ATM), then set the **IP Control?** field to `y`.
   - If IPSIs are in fiber-connected PNs (direct-connect), then set the **IP Control?** field to `y` unless there is more than 1 IPSI. Then set the **IP Control?** field for the second IPSI to `n`.
   - If an IPSI is in a DS1-C–remoted PN, then set the **IP Control?** field to `n` to maintain the 5:1 ratio of IPSIs to PNs. If the field is set to `y`, then the system decreases the ratio to 2:1.
4. Verify that all the other fields are populated.
5. Press **Enter** to effect the changes.
6. Repeat steps 1 through 5 for each port network.

Setting IPSI duplication (high/critical reliability only)

To set IPSI duplication, perform the following steps:

1. Type `change system-parameters duplication` and press **Enter**

   ![Change System Parameters](change.png)

2. Set the **Enable Operation of IPSI Duplication** field to **y**.
3. Press **Enter** to effect the changes.

Setting alarm activation level

To set the alarm activation level, perform the following steps:

1. Type `change system-parameters maintenance` and press **Enter**.

   ![Change System Parameters Maintenance](change-maintenance.png)

2. In the **CPE Alarm Activation Level** field, select **none** (default), **warning**, **minor**, or **major**, depending on the level the customer wants.
Backing up translations

To back up translations, perform the following steps:

1. S8710: Place a formatted flash card in the compact flash drive attached to a USB port.
2. Launch a Web browser.
3. Log in as craft or dadmin.
4. Click Launch Maintenance Web Pages.
5. Under Data Backup/Restore, click Backup Now.
6. Select the data sets and the backup method.

   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.

7. Click Start Backup to begin the backup process.

Migration tasks

Perform these tasks to change a processor port network to a port network (IP600).

Verifying hardware

Make sure you have the conversion specific hardware on hand. See Required Migration Hardware on page 673 for a list of required hardware.

Table 13: Required Migration Hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700260359</td>
<td>TN2312BP IP Server Interface circuit pack</td>
<td>1</td>
</tr>
<tr>
<td>700263502</td>
<td>IPSI adapter</td>
<td>1</td>
</tr>
<tr>
<td>700276389</td>
<td>Maintenance cable (attaches to IPSI adapter—optional)</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 13: Required Migration Hardware (continued)

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cable:</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700060643</td>
<td>– 50-meter (164 feet)</td>
<td>1</td>
</tr>
<tr>
<td>700261928</td>
<td>TN2302AP IP Media Processor circuit pack or TN2602AP IP Media Resource 320</td>
<td>1 or 2</td>
</tr>
<tr>
<td>700055015</td>
<td>circuit pack (to replace TN799C)</td>
<td>1 or more</td>
</tr>
<tr>
<td>848525887</td>
<td>IP Media Processor adapter</td>
<td>1/MedPro</td>
</tr>
<tr>
<td>700283690</td>
<td>TN2602AP cable adapter</td>
<td>1/MedRes</td>
</tr>
<tr>
<td>NA</td>
<td>CAT5 cables</td>
<td>1/MedPro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/C-LAN</td>
</tr>
<tr>
<td>700234032</td>
<td>Migration kit (PEC code 63275):</td>
<td>1</td>
</tr>
<tr>
<td>700207111</td>
<td>– Upper circuit pack slot label</td>
<td></td>
</tr>
<tr>
<td>700181118</td>
<td>– Twisted pair I/O cables</td>
<td>10</td>
</tr>
<tr>
<td>106689516</td>
<td>TN771 Maintenance/Test circuit pack (optional)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108772583</td>
<td>TN2501AP Voice Announcement over LAN circuit pack (optional)</td>
<td>1</td>
</tr>
<tr>
<td>NA</td>
<td>ED-1E568-70G1 DEFINITY Audix Slim board (optional)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note:
If customers currently are using the Audix feature on the S8100, they need to purchase a separate Audix switch. The TN795 or TN2314 Processor circuit pack containing the Audix feature is being replaced with a TN2312BP Internet Protocol Server Interface (IPSI) circuit pack that does not have that feature. The existing processor circuit pack must be returned to Avaya.

Note:
Customers also need to add an ED-1E568-70G1 DEFINITY Audix Slim board and a TN2501AP Voice Announcement over LAN (VAL) circuit pack for announcements.
Changing the IP600 control chassis to a port network

To change the Avaya IP600 control chassis to a port network, you must:

- Replace the existing straight-wire WP cables, if present, with new twisted pair I/O cables.
- Replace the processor circuit pack with a TN2312BP IP server interface (IPSI) circuit pack.
- Connect a CAT5 straight-through cable from the IPSI to the media server through the customer’s network.

**Note:**

If replacing a TN795 Processor circuit pack, you may not need the TN744D/E Call Classifier-Detector circuit pack. The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack has call classifier functionality; however, increased voice and data traffic may require the TN744D/E Call Classifier-Detector circuit pack.

**Note:**

If you have a TN799C or earlier C-LAN circuit pack, you must replace it with a TN799DP C-LAN circuit pack.

**Note:**

The new license file should be installed on the media server before making the conversion.

Powering down the control chassis

To power down the control chassis, perform the following steps:

⚠️ **CAUTION:**

Make sure you have done the pre-migration administration. See [Pre-migration administration](#) on page 663.

1. Press and hold the shutdown button on the processor’s faceplate until the shutdown process starts.

Make sure you see the green light indicating the switch has shut down before continuing.

⚠️ **DANGER:**

The latch on the power supply acts as the DC power switch and only removes DC power from the backplane, *not* the AC power. To remove the AC power from the chassis, pull the AC power cord from the back of the chassis.

2. Power down the chassis by unplugging the power cord from the back of the chassis.
Replacing I/O cables

On older MCC1, SCC1, and G600 media gateways (cabinets) you must replace the existing I/O cables (WP-90753, LI), which connect the backplane to the rear connector panel, with Twisted Pair I/O cables. Order the DEFINITY kit with Twisted Pair I/O cables under Comcode 700234032.

The existing I/O cables have straight, not twisted, wires. They may be mostly white with two red or multi-colored. If the cables have multi-colored, tightly twisted wires, no replacement is necessary.

⚠️ CAUTION:
Turn off power to the carrier or media gateway being serviced.

⚠️ CAUTION:
When adding or replacing any hardware and associated cables and adapters, be sure to ground yourself against electrostatic discharge (ESD) by wearing a grounded wrist strap.

To replace the existing I/O cables, perform the following steps:

1. If the customer has an MCC1 or SCC1 Media Gateway, move to step 2. If the customer has a G600 Media Gateway, perform the following step:

   You must remove the fan assembly to access the cables. Loosen the thumb screws on the fan assembly and pull it straight out as shown in G600 Media Gateway fan assembly removal on page 677. Leave the fan assembly off until all the wires are installed.

2. Note the orientation of the existing 10 cables. The existing I/O cables may be white and red or multicolored. They are not twisted.

3. Remove the existing I/O cables to be replaced from the backplane and the connector panel slots.

4. In their place install the Twisted Pair I/O cables onto the backplane, according to the proper orientation shown in Proper orientation for the Twisted Pair I/O cables on page 678. Observe the white outline printed on the backplane for the location of each connector.

5. When viewed from the "wiring" side of the twin connectors (that is, while plugging them into the backplane) and with the connectors oriented properly for plug-in, they should look like Proper orientation for the Twisted Pair I/O cables on page 678.

   The circled pin locations are “No-Connects”; that is, they have no wires in them. At the top there is an orange-black pair on the right and a violet-brown pair on the left.

   If you are replacing I/O cables for all slot positions, plug all cables into the backplane before matching each cable’s "D" connector to the carrier frame.
Migration tasks

The 50-position metal shell "D" connectors should be installed into the carrier frame with the longer side of the "D" connector (pins 1–25) toward the right when viewed from the rear of the media gateway.

6. Apply the 10/100 mbps label to the front of the carrier slot, over the slot label that corresponds to the slot where you installed the Twisted Pair I/O cable.

7. For the G600 Media Gateway, replace the fan unit if no other media gateways are to be installed. If you are adding more media gateways to the rack, leave the fan units off until all of the TDM cables are installed.

Figure 3: G600 Media Gateway fan assembly removal
Replacing the processor circuit pack

To replace the processor circuit pack, perform the following steps:

1. Remove the entire processor circuit pack and place it in an antistatic carrier or bag. You want it intact if you need to back out of the migration.
2. Remove the octopus cable from the connector associated with slot 2 on the backplane.
3. Install the IPSI adapter to the connector associated with slot 2 on the backplane.
4. Install the maintenance cable onto the 9-pin D-sub connector on the Adapter. This cable is for emergency transfer and "auxsig" signal.

**Note:**

The TN2312BP Internet Protocol Server Interface (IPSI) circuit pack takes up only one slot.

5. Insert the TN2312BP Internet Protocol Server Interface (IPSI) circuit pack into slot 2.
6. Attach the new label above the circuit pack slots.
Replacing the TN799C C-LAN circuit pack (if necessary)

To replace the TN799C C-LAN circuit pack, perform the following steps:

1. Remove the TN799C C-LAN circuit pack and place it in an antistatic carrier or bag.
2. Insert the new TN799DP C-LAN circuit pack into the same slot.
3. Replace the 259A adapter and CAT3 cable on the backplane with the Amphenol adapter used for the TN2302AP IP Media Processor circuit pack and a CAT5 cable.

Installing TN771 Maintenance/Test

Install a TN771 Maintenance/Test circuit pack in slot 1. There must be one TN771 Maintenance/Test circuit pack per location. Maintenance functions were present on the TN798 or TN2402 Processor circuit pack and must be replaced by the TN771. This carrier does not have a TN775 Maintenance (EPN) dedicated slot.

Connecting to the media server

Connect one end of the GREEN CAT5 straight-through cable to the Ethernet switch on the customer’s network and the other to the IPSI adapter on the back of the media gateway.

Post-migration administration

Assigning IP addresses to the IPSI circuit packs

The IP server interface circuit packs get IP addresses using static IP addressing.
Using static addressing

For the IPSI circuit packs to get static IP addresses, you must administer them directly through the Ethernet port connection on the IPSI faceplate (top port). See Figure 46: Connecting directly to the IPSI.

**Figure 46: Connecting directly to the IPSI**

![Diagram showing connection](image)

**Figure notes:**

1. Services laptop
2. PCMCIA Network Interface Card (NIC)
3. NIC adapter cable (if necessary)
4. CAT5 crossover cable to IPSI

**Note:**
Make sure you have the password before proceeding.

Clearing the ARP cache

Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer click **Start > Run** to open the Run dialog box.
2. Type `command` and press **Enter** to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: **The specified entry was not found.**

   This is returned when the specified IP address does not currently appear in the ARP cache.

### Logging into the IPSI

The following steps logs you into the IPSI.

1. Type `telnet 192.11.13.6` and press **Enter** to open the Telnet window and connect to the IPSI
   
   Prompt = [IPSI]:

   **Note:**
   
   While connected to the IPSI, type `help` or `?` to obtain online help. Most commands have two or three letter abbreviations.

2. Type `ipsilogin` and press **Enter** (abbreviated command = `il`).

   **Note:**
   
   The `craft` login used on the IPSI has a different password than the `craft` login used on the media servers.

3. Log in as `craft`.
   
   Prompt = [IPADMIN]:

### Setting the control interface

The following steps set the control interface.

1. Type `show control interface` and press **Enter**.

2. Type `show port 1` and press **Enter** to see the current settings.
3. Type `set control interface ipaddr netmask` and press Enter, where `ipaddr` is the customer-provided IP address and `netmask` is the customer provided subnet mask.

```
TN2312 IPSI IP Admin Utility
Copyright Avaya Inc, 2000, 2001, All Rights Reserved

[IPSI]: ipsilogin
Login: craft
Password:

[IPADMIN]: set control interface 105.9.70.77 255.255.255.0
WARNING!! The control network interface will change upon exiting IPADMIN

[IPADMIN]: show control interface
Control Network IP Address - 105.9.70.77
Control Network Subnetmask = 255.255.255.0
Control Network Default Gateway = None
IPSI is not configured for DHCP IP address administration

[IPADMIN]:
```

4. Enter `quit` to save the changes and exit the IPSI session.

5. Telnet to `192.11.13.6` and login.

6. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

7. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr`, where `gatewayaddr` is the customer-provided IP address for their gateway.

8. Enter `quit` to save the changes and exit the IPSI session.

9. Telnet to `192.11.13.6` and login.

10. Use `show control interface` to verify the administration.

11. Type `exit` and press Enter to see the changes.

**Setting the VLAN and diffserv parameters**

The following steps sets the VLAN and diffserv parameters.

1. Log back in as `craft`.

2. Enter `show qos` to display the quality of service values.
3. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown.

**Note:**
Use Help to obtain syntax guidelines for these commands.

- Enter `set vlan priority 6`
- Enter `set diffserv 46`
- Enter `set vlan tag on`
- Enter `set port negotiation 1 disable`
- Enter `set port duplex 1 full`
- Enter `set port speed 1 100`

4. Enter `show qos` to check the administered values.

5. Enter `quit` to exit.

⚠️ **Important:**
Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

**Resetting the IPSI**

The following steps resets the IPSI and ends the administration session.

1. Type `reset` and press `Enter`
   Answer `Y` to the warning.

**Note:**
Resetting the IPSI terminates the administration session. If further administration is required, start a new telnet session to the IPSI.

**Note:**
Control network settings (IP address, subnet mask, and gateway) become effective when you exit the IPADMIN session.

2. Disconnect the laptop from the faceplate.

3. Check the LCD. Verify that it has an IP with a filled-in V showing at the bottom. (See Figure 47: LED display showing that the IPSI has a static IP address)
Verifying IPSI translations

To verify IPSI translations, perform the following steps:

1. Type `list ipserver-interface` and press Enter.
2. Verify that the ISPI circuit pack(s) is translated.
Verifying IPSI connectivity

To verify IPSI connectivity, perform the following steps:

1. Under Diagnostics, click **Ping**.

2. Select **IPSI’s with cab number (1–99) ____ carrier number ____**. Fill in the blanks with the correct cabinet and carrier numbers.

3. Click **Execute Ping**.

4. Verify that the endpoints respond correctly.

Enabling control of IPSI(s)

To enable control of the IPSI(s), perform the following steps:

Note:

Make sure the IPSI(s) have the same, current firmware.
CAUTION:
This is the step that allows the media server to take control of the IPSI-controlled port network(s).

1. Type `change system-parameters ipserver-interface` and press **Enter**.

2. Set the **IPSI Control of Port Networks**: field to **enabled**

3. Press **Enter** to effect the change.

4. Type `save translation` and press **Enter**.

   All the port networks are now controlled by the media server.

---

**Verifying customer’s data**

The new translations should include all the media gateway (chassis) and circuit pack administration, including the media gateway (chassis) and the circuit pack administration of the converted cabinets (chassis). Verify that the information is correct.

**Verifying circuit pack locations**

To verify circuit pack locations, perform the following steps:

1. Type `list cabinet` and press **Enter** to view all the "cabinets." Verify that the cabinet number assigned to the converted cabinets shows.
2. Type `display cabinet number`, where `number` is the cabinet number of the converted cabinet, and press `Enter`. Under Carrier Description, Carrier Type verify that the number of "carriers" in use matches the number of or media gateways in the rack (G600 or G650).

Verifying circuit pack insertion

To verify circuit pack insertion, perform the following steps:

1. Type `list configuration all` and press `Enter` to see the list of all the slot locations.
2. Verify that the circuit pack code and vintage number appears in the Code and Vintage fields rather than "no board", indicating that a circuit pack was not installed in that slot.

Verifying IP addresses

Make sure that the node names and IP addresses assigned to the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs match the node names and IP addresses from before the migration.

To verify IP addresses, perform the following steps:

1. Type `display ip-interfaces` and press `Enter` to get the node names for the TN2302AP IP Media Processor and TN799DP C-LAN circuit packs in the slots of interest.
2. Type `list node-names` and press `Enter` to verify that the node names exist and the IP addresses match up with the node names.

Check link status

Compare the list made before the migration to make sure that the in- or out-of-service links match.

To check link status, perform the following steps:

1. Type `display communication-interface links` and press `Enter`. Write down all enabled links.
2. Type `status link number` where `number` is 1-99 and press `Enter`.
3. Compare which links are in service with the pre-migration list.
4. Repeat steps 2 and 3 for all link numbers.

Upgrading firmware (if necessary)

You may need to upgrade the firmware on the IPSI(s). Each IPSI must be on the most current and same firmware load. The most current firmware load is on the installation CD. If not, go to Avaya Support Web page (http://avaya.com/support) and click Downloads.
First verify the version of firmware currently on the IPSI circuit pack.

1. Under Installation and Upgrades, click View IPSI Version. Select Query All and click View IPSI Version.

2. Verify the firmware release for the TN2312BP IPSI.

Upgrade the firmware on the just installed TN2313BP IP Server Interface circuit pack if necessary. For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Take this opportunity to upgrade the firmware on the following circuit packs if necessary.

- UDS1 (TN464GP, TN2464BP, and TN2313AP)
- Maintenance/Test (TN771DP)
- Control LAN (C-LAN) (TN799DP)
- IP Media Processor (TN2302AP)

For information on how to do this, see Upgrading firmware on the IPSIs on page 219.

Testing the installation

Test the complete installation. See Testing the media server installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Busying out trunks

If you recorded any busyouts earlier, you need to make sure they are busied out after the conversion.

Troubleshooting the migration

See Troubleshooting an installation which is part of the Documentation for Avaya Communication Manager Release 3.0, Media Gateways and Servers CD.

Returning replaced equipment

Once you’ve determined that the port network is functioning, return the old processors and any other replaced equipment to Avaya following established procedures.
Migrating an S8500 Media Server to an S8710 Media Server IP-Connect

These procedures explain how to migrate an existing S8500 Media Server to an S8710 Media Server IP-Connect configuration. In this migration, you can configure the S8710 Media Servers but reuse the translations from the S8500 Media Server. This migration requires a new license file.

Because with this migration you are upgrading to Release 3.0 of Communication Manager, you must upgrade local survivable processors (LSPs), if they are being used, before the S8710 Media Server takes control.

This is a service-affecting event.

Basic migration steps

- Install the media servers in a 19-inch, 4-post rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703. You need a second uninterruptible power supply (UPS).
- Connect the duplication cables.

Before you go on site

Before beginning the software migration and media server configuration, you need to complete the following tasks:

- Verify that the customer has a local area network set up and running and a network administrator available the date of the migration.
- Verify that you have the IP addresses and unique names for the media servers.
- Verify that you have a new license file and password file.
- Verify that the Services laptop has the correct hardware and software.
  - Windows 2000/XP operating system
  - 32-MB RAM
  - 40-MB available disk space
Migrating an S8500 Media Server to an S8710 Media Server IP-Connect

- RS-232 port connector
- Network interface card (NIC) with a 10/100BaseT Ethernet interface
- 10/100 BaseT Ethernet, category 5 (or better), crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)
- CD-ROM drive

- Verify that you have the current translations available for download via ProVision.

- Verify that you have a filled-out Electronic Pre-Installation Worksheet (EPW). See the Avaya Installation Wizard Web site (http://support.avaya.com/avayaiw) for the blank form. The EPW provides:
  - IP addresses
  - Product ID
  - Avaya Services telephone number for remote access over modem
  - Avaya Services IP address for alarms through the network

- Verify that you have the current firmware available. Firmware for the IPSI, C-LAN, MedPro, and VAL circuit packs are on the software CD, but check the Avaya Support Web site (http://support.avaya.com), click Find Documentation and Downloads by Product Name, for the latest software and firmware.

- Verify that you have all the login IDs and passwords to access the S8500 and S8710 Media Servers and server complex components. This includes the unique service password for that customer’s equipment.

  To obtain the password for a specific media server, call ASG Conversant (9.800.248.1234 or 1.720.444.5557). You must have the IL, FL, or product ID to get the password.

  To log in through the Services port as craft after you install the Avaya authentication file, use this password, which does not require an ASG challenge or response.
Migration tasks

Perform these tasks to migrate an S8500 Media Server to an S8710 Media Server.

Pre-migration administration:
- Verifying hardware on page 692
- Upgrading G150, G350 or G700 Media Gateways and local survivable processors (if being used) on page 694

On the S8500 Media Server:
- Clearing the ARP cache on the laptop on page 695
- Connecting to the media server on page 695
- Starting a SAT session on page 696
- Checking for translation corruption on page 696
- Saving translations on page 696
- Backing up the translation files on page 696

On the active S8710 Media Server:
- Powering up both media servers on page 697
- Accessing the media server on page 697
- Setting up Telnet (if necessary) on page 697
- Installing Communication Manager on page 698
- Accessing the media server on page 699
- Configuring both media servers using AIW on page 700

On the S8710 Media Servers:
- Connecting customer LAN cables on page 700
- Restoring the translations on page 700
- Pre-testing the system on page 701

On the S8500 Media Server:
- Disconnecting the S8500 Media Server from the customer network on page 703

On the S8710 Media Servers:
- Connecting the S8710 Media Servers to the control network on page 703

On the S8500 Media Server:
- Shutting down the S8500 Media Server on page 703
- Disconnecting the cables on page 704
Pre-migration administration

Verifying hardware

You can reuse some of the equipment and cables when migrating an S8500 Media Server to S8710 Media Servers; see Table 15: Reusable hardware. But you need new equipment to complete the migration; see Table 16: Required new hardware on page 693.

Table 15: Reusable hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>408357002</td>
<td>Powerware 9125 uninterruptible power supply (UPS) with SNMP adapter installed (if Avaya-provided)</td>
<td>1</td>
</tr>
<tr>
<td>408427409</td>
<td>– US &amp; Canada</td>
<td></td>
</tr>
<tr>
<td>700181928</td>
<td>– Japan</td>
<td></td>
</tr>
<tr>
<td>108873233</td>
<td>10/100BaseT Ethernet switch (if Avaya-provided)</td>
<td>1</td>
</tr>
<tr>
<td>108563123</td>
<td>– Avaya Ethernet P133 switch</td>
<td></td>
</tr>
<tr>
<td>108644451</td>
<td>– Avaya Ethernet P333 switch</td>
<td></td>
</tr>
<tr>
<td>700235526</td>
<td>External V.90 56K USB modem with cable (if used)</td>
<td>1</td>
</tr>
<tr>
<td>700290448</td>
<td>Compact flash reader</td>
<td>1</td>
</tr>
<tr>
<td>700290430</td>
<td>Compact flash media</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cables</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>1-34</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>1-34</td>
</tr>
<tr>
<td>700170053</td>
<td>Black CAT5 Ethernet crossover cable for laptop computer</td>
<td>1</td>
</tr>
<tr>
<td>407063478</td>
<td>Electrostatic discharge (ESD) wrist strap</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 16: Required new hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700326416</td>
<td>Avaya S8710 Media Servers</td>
<td>2</td>
</tr>
<tr>
<td>408357002</td>
<td>Powerware 9125 uninterruptible power supply (UPS) (if Avaya-provided)</td>
<td>1</td>
</tr>
<tr>
<td>408427409</td>
<td>– US &amp; Canada</td>
<td></td>
</tr>
<tr>
<td>700181928</td>
<td>– International</td>
<td></td>
</tr>
<tr>
<td>408427656</td>
<td>SNMP Network Interface Adapter for UPS (if Avaya-provided)</td>
<td>1</td>
</tr>
<tr>
<td>700230741</td>
<td>4-post rail kits for mounting UPSs in rack (Powerware code: 05146726-5501)</td>
<td>1</td>
</tr>
<tr>
<td>700235526</td>
<td>External V.90 56K USB modem with cable</td>
<td>1</td>
</tr>
<tr>
<td>700290448</td>
<td>Compact 4-slot flash drive</td>
<td>1</td>
</tr>
<tr>
<td>700290430</td>
<td>Compact flash media</td>
<td>1</td>
</tr>
<tr>
<td>700287964</td>
<td>Avaya Communication Manager CD for Linux Servers</td>
<td>1</td>
</tr>
<tr>
<td>700252828</td>
<td>Avaya S8300, S8500, S8700 Media Server Library CD (555-233-824)</td>
<td>1</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cables</td>
<td>1</td>
</tr>
<tr>
<td>700178056</td>
<td>– 5 meters (16 feet)</td>
<td></td>
</tr>
<tr>
<td>700178064</td>
<td>– 25 meters (82 feet)</td>
<td></td>
</tr>
<tr>
<td>700169998</td>
<td>Blue CAT5 Ethernet crossover cable for duplication</td>
<td>1</td>
</tr>
<tr>
<td>700290422</td>
<td>Yellow single-mode fiber optic cable with LC connectors</td>
<td>1</td>
</tr>
<tr>
<td>700326382</td>
<td>– 4.6 meters (15 feet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– 100 meters (328 feet)</td>
<td></td>
</tr>
</tbody>
</table>
Upgrading G150, G350 or G700 Media Gateways and local survivable processors (if being used)

**Note:**
If the customer has no G150, G350 or G700 Media Gateways or no local survivable processors (LSPs), skip these tasks and go to On the S8500 Media Server on page 695.

If the configuration is using G150, G350, or G700 Media Gateways and media modules and newer firmware exists for them, you must upgrade the firmware on them first. If the media server is the primary controller for a G700 Media Gateway equipped with an LSP, you must upgrade the software on the LSPs (S8300) before you transfer control to the S8710 Media Servers. The correct order is:

1. Upgrade media gateway firmware to latest version
2. Upgrade media modules firmware to latest version
3. Upgrade S8300 Media Server software to latest version if using LSPs
4. Transfer control to the S8710 Media Server.

**Upgrading firmware on media gateways and media modules**

For more detailed information on the firmware upgrade process, see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100) or for more complete information.

**Upgrading software on the local survivable processors**

For more detailed information on the software upgrade process, see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).

**Note:**
Although the LSPs remain registered with the primary controller, the LSPs will not accept translations if they are running an older version of the software than the primary controller.

You may use the Upgrade Tool to upgrade the firmware on the G700 Media Gateway. For more detailed information on using the Upgrade Tool, see the job aid for Release 2.2 titled *Job Aid: Upgrade Tool and Worksheets* (555-245-757).

You may be able to use the Upgrade Tool to upgrade the software on the S8300 Media Server, depending on the media server version. For more information see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).
CAUTION:
You must stop call processing on the LSPs during the migration process. You can do this procedure on either the active or standby media server.

---

**Migration tasks**

---

**On the S8500 Media Server**

**Clearing the ARP cache on the laptop**

To clear the ARP cache, perform the following steps:

**Note:**
Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address, and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer, click **Start > Run** to open the **Run** dialog box.
2. Type `command` and press **Enter** to open a MS-DOS Command Line window.
3. Type `arp -d 192.11.13.6` and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: **The specified entry was not found.**
     This is returned when the specified IP address does not currently appear in the ARP cache.

**Connecting to the media server**

To connect to the media server, perform the following steps:

1. Connect the laptop to the Services port (2) on the back of the media server using a crossconnect CAT5 cable.
Starting a SAT session

To start a SAT session, perform the following steps:
1. Open a terminal emulation application, such as Native Configuration Manager or MS HyperTerminal.
2. Type `192.11.13.6 5023` and press Enter.
3. Log on as craft or dadmin and suppress alarm origination.

Checking for translation corruption

To check for translation corruption, perform the following steps:
1. Type `newterm` and press Enter.
2. If you do not get a login prompt, but instead see the following message
   
   **Warning: Translation corruption detected . . .**
   
   then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Saving translations

To save translations, perform the following steps:
1. Type `save translation lsp` and press Enter where `lsp` is used only if the system has local survivable processors (LSPs).

Backing up the translation files

To back up the translation files from the Web interface, perform the following steps:
1. Connect the compact flash disk cord into one of the USB ports on the front of the media server.
2. Insert a formatted 128-megabyte (MB) compact flash disk into the bottom slot of the drive.
3. From the menu, select Backup/Restore, then select Backup Now.
4. Select **Avaya Call Processing (ACP) Translations** and **Local PC** (this is the compact flash) and select the number of data sets to retain as the backup method.
5. Click Start Backup to begin the backup process.
6. Click Backup History to view the progress of the backup process.
7. When done, disconnect the Services laptop from the media server.
On active S8710 Media Server

Powering up both media servers

To power up the media servers, perform the following steps:

1. Connect the AC power cord to both media servers and to the UPS units to power them up.
2. Push the power button.
3. Place the CD with Communication Manager in the CD-ROM drive on the media server.

   The CD must be installed and the media server must boot from the CD. After pressing the power button on the media server, wait 10 seconds and press the eject button on the CD tray. The tray opens, insert the CD, and close the tray. Allow the media server to finish booting.

Accessing the media server

To access the media server, perform the following steps:

1. Clear the ARP cache from the laptop if necessary. (See Clearing the ARP cache on the laptop on page 695 and return here.)
2. Connect the laptop to the Services port (2) on the back of the media server using a crossconnect cable.
3. Wait at least 3 minutes after powering up before starting a Telnet session to access the information on the CD.

Setting up Telnet (if necessary)

To set up Telnet, perform the following steps:

   Note:

   Use a telnet session to access the information on the CD.

   The Microsoft Telnet application may be set to send a carriage return (CR) and line feed (LF) each time you press Enter. The installation program sees this as 2 key presses. If running Windows 2000/XP, you need to correct this before you copy the Remaster Program to the hard drive.

   1. Click Start > Run to open the Run dialog box.
   2. Type telnet and press Enter to open a Microsoft Telnet session.
3. Type `display` and press **Enter** to see the current settings. If message says **Sending only CR**
then close the dialog box.
If message says **Sending both CR & LF**
then continue with step 4.
4. Type `unset crlf` and press **Enter**.
5. Type `display` and press **Enter** to verify that the settings changed. The message says **Sending only CR**
6. Close the dialog box.

**Installing Communication Manager**

To install Communication Manager, perform the following steps:

1. Type `telnet 192.11.13.6` and press **Enter** to view the first screen.

```
What do you want to do?
The hard drive is currently Partitioned
Choose One

(X) Install  Install or Upgrade MV Software
( ) Shell    Boot to Rescue Bash Shell
( ) Quit     Reboot the server

< OK >
```

**Note:**
To navigate on these screens, use the arrow keys to move to an option, then press the space bar to select the option. Press **Enter** to submit the screen.
2. Select **Install**, make sure OK is highlighted, and press **Enter**.
3. On the **Select Release Version** window, make sure the Build line and <OK> is highlighted. Press **Enter** to partition the hard drive and reformat the partitions.

Once the drive is properly configured, the program begins the installation process and reports the progress.

These processes can take up to 20 minutes. When the media server is ready to reboot, the CD-ROM drive drawer opens. You must remove the CD from the drive at this time.

The reboot may take up to 3 minutes. The telnet session drops automatically.

4. Disconnect from the active media server and connect to the other media server.

5. Repeat **Powering up both media servers** on page 697 through **Installing Communication Manager** on page 698.

**Accessing the media server**

To access the media server, perform the following steps:

1. Click **Start > Run** to open the **Run** dialog box.

2. Type `telnet 192.11.13.6` and press **Enter** to see if you get a login prompt. Repeat until you get the login prompt.

3. Log in as **craft** or **dadmin**.

4. Log onto the Maintenance Web Interface. See **Accessing the media server** on page 697 and return here.
Configuring both media servers using AIW

You need to configure both media servers and install the new license file and software updates on each media server using the Avaya Installation Wizard (AIW). You can do it two ways:

- Import the data from the filled-out Electronic Preinstallation Worksheet (EPW).
- Type in the information manually using the filled-out EPW as a guide.

To access the Installation Wizard, perform the following steps:

1. Activate the browser with the Home page.
2. Click **Launch Avaya Installation Wizard**.
3. Follow the prompts, using Help on each page for more information.
   - Configure this server as "active."

On the S8710 Media Servers

Connecting customer LAN cables

To connect the customer’s LAN cables, perform the following steps:

1. Connect the CAT5 cables from both S8710 Media Servers (Ethernet 4) to the customer LAN.

Restoring the translations

To restore the translations to the active media server, perform the following steps:

1. Connect the compact flash reader cord to either USB port on the back of the media server.
2. Insert the compact flash card (used in Backing up the translation files on page 696) with the translations into the bottom slot of the drive.
3. Under **Data Backup/Restore**, click **View/Restore Data**.
4. Select **Local PC Card**.

   **Note:**
   - If the laptop is connected to the standby media server, telnet across the duplication link to the active media server (telnet 192.11.13.13 is server 1, telnet 192.11.13.14 is server 2. Be sure the translations are copied to the active media server.
5. Click **View**.
6. Select the correct translation file (the most recent one) and both Force options.
7. Click **Restore**.
8. Click **Restore History** and select desired file.

9. Click **Status** to view the Restore status. When the restoration is complete, the following message displays:

   **Backup: 0: Restore of <filepath/filename> is completed successfully.**

### Pre-testing the system

To perform pre-testing of the system, perform the following steps:

**Note:**

Do not connect to the control network yet.

1. Install the license and authorization files.
2. Type `reset system 4` and press **Enter**.
3. Type `list station` and press **Enter**.
   
   Verify the same stations are on this server as were on the S8500 Media Server.
4. Type `save translation` and press **Enter**.
5. Perform the necessary administration (for example, add duplication administration).
6. When finished, type `save translation` and press **Enter**.
7. If the browser is not running, activate the browser with the Home page.

**Note:**

For the next step, do not continue until the Status Summary informs you that the standby server memory is refreshed.
8. Select **Server**, then **Status Summary**.

9. Verify the following:
   - **Duplicated** field is **yes**
   - **Standby Busied** field is **no**
   - **Standby Refreshed** field is **yes**
   - **Standby Shadowing** field is **on**
   - **Duplication Link** field is **up**

10. Log in to both media servers from anywhere on the customer LAN.
    This will verify that connectivity exists and the customer can log in to perform administration or other tasks.

11. Using the Web browser, select **Server**, then **Interchange Servers** to interchange the media servers.

    **Note:**
    Be sure you are connected to the active media server before continuing.
    The system is ready to take over call processing.

12. Connect both IPSI control network B green CAT5 cables from both media servers to the Ethernet switch for the standby IPSIs.
On the S8500 Media Server

Disconnecting the S8500 Media Server from the customer network

Note:
This stops call processing.

To disconnect the S8500 Media Server from the customer network, perform the following step:
1. Remove the control network A cable from the S8500 Media Server.

On the S8710 Media Servers

Connecting the S8710 Media Servers to the control network

To connect the S8710 Media Servers to the control network, perform the following steps:
1. Connect both S8710 Media Server IPSI control network A green CAT5 cables to the Ethernet switches.

Note:
IPSI and port networks will reset automatically. The approximate outage is 5 minutes and then call processing should be on the S8710 Media Servers.

2. After approximately 30 minutes, verify the system is functioning satisfactorily. Check and clear alarms. If everything is satisfactory, continue to Shutting down the S8500 Media Server on page 703.

On the S8500 Media Server

Shutting down the S8500 Media Server

To shut down the S8500 Media Server, perform the following steps:

⚠️ **CAUTION:**
Do not unplug a functioning server without stopping all processes first. Failure to do this corrupts the hard drive.

1. Under Server, click Shutdown Server then
   - deselect Restart Server after Shutdown.
   - select Delayed shutdown
2. Click **Shutdown**.

⚠️ **CAUTION:**

Do not hold down the power button for more than a split second. Holding the button down too long causes the media server to reboot.

3. Press and release the power-control button on the front of the server.

That internal fan shuts off.

4. Disconnect any remaining cables from the media server.

**Disconnecting the cables**

To disconnect the cables, perform the following steps:

1. Disconnect the laptop from the Services port.
2. Disconnect the power cord from the UPS.
3. Disconnect the power cord from the RSA.
4. Disconnect the modem from the RS-232 port on the SAMP or RSA card.
5. Disconnect the LAN connection (if used) from the Ethernet port on the SAMP or RSA card.
6. Disconnect the cable from the Ethernet port on the dual NIC (if used).
Migrating from an S8700 Media Server to an S8710 Media Server

These procedures explain how to migrate an existing S8700 Media Server on release 1.x through 2.x of Avaya Communication Manager to an S8710 Media Servers on Release 3.0. If the media servers are on Release 1.x, you must upgrade them to Release 1.3.2 before the migration. This migration requires a new license file and Avaya authentication file. In this migration, you reuse the system and translation files from the S8700 Media Servers.

These migrations include:

- Multi-Connect to Multi-Connect
- IP-Connect to IP-Connect

Because with this migration you are upgrading to Release 3.0 of Communication Manager, you must upgrade local survivable processors (LSPs), if they are being used, before the S8710 Media Server takes control.

Basic Migration Steps

Note:
Every time you connect to a media server, perform Clearing the ARP cache on the laptop on page 718 to avoid temporary internet files that could cause confusion.

- Upgrade G350 or G700 Media Gateways and local survivable processors (LSPs) if being used.
- If release 1.2 or 1.3, install the pre-upgrade update (patch).
- If release 1.0 or 1.1, upgrade to release 1.3.
- Back up the Linux migration upgrade set. This is the only file set you will need.
- Install the Avaya S8710 Media Servers either:
  - in a 19-inch, 4-post rack as described in the Quick Start for Hardware Installation: Avaya S8700 Series Media Server (555-245-703).
  - on a pullout shelf attached to the existing 2-post rack.
- Install the current software on the S8710 Media Servers.
- Restore the Linux migration upgrade set from the customer’s network to both S8710 Media Servers using the Linux Migration (Backup/Restore) link.
Migrating from an S8700 Media Server to an S8710 Media Server

**Note:**
If moving Ethernet switch(es) and UPSs to the 4-post rack, do it here before the cutover.

- Connect the control network Ethernet cables to the new S8710 Media Servers, standby media server first.
- Connect the duplication cables after restoring files to the second media server.
- Complete the post-migration administration.

---

**Prerequisites**

This section provides those tasks that must be completed prior to beginning the migration.

The pre-requisites are defined as follows:

- **Pre-site checklist** on page 707 - these are tasks that must be performed before going on site.
- **Before you go on site for a migration from a DEFINITY system, complete the following additional tasks before beginning the migration:** on page 709 - these are tasks that must be performed on site before beginning the migration from an existing DEFINITY system.
- **Pre-site migration checklist** on page 711 - these are tasks that must be completed before going on site.
- **On site migration checklist** on page 712 - these are tasks that must be performed on site before beginning the migration.
- **Documentation checklist for migrations** on page 713 - these are the documents Avaya recommends that you have on hand for the migration.
## Tasks checklists

### Pre-site checklist

Before you go on site, perform the following tasks:

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that your Services laptop has the appropriate hardware.</td>
<td>Correct hardware components include:</td>
</tr>
<tr>
<td></td>
<td>● 40 MB available disk space</td>
</tr>
<tr>
<td></td>
<td>● direct Ethernet cable</td>
</tr>
<tr>
<td></td>
<td>● serial cable and adapter</td>
</tr>
<tr>
<td></td>
<td>● RS-232 port connector</td>
</tr>
<tr>
<td></td>
<td>● Network interface card (NIC) with a 10/100 BaseT Ethernet interface</td>
</tr>
<tr>
<td></td>
<td>● 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an</td>
</tr>
<tr>
<td></td>
<td>RJ45 connector on each end (MDI to MDI-X)</td>
</tr>
<tr>
<td></td>
<td>● CD-ROM drive</td>
</tr>
<tr>
<td>Verify that your Services laptop has the appropriate software.</td>
<td>Correct software components include:</td>
</tr>
<tr>
<td></td>
<td>● Windows 2000/XP operating system</td>
</tr>
<tr>
<td></td>
<td>● Terminal emulation program: HyperTerminal or other</td>
</tr>
<tr>
<td></td>
<td>● TCP/IP networking software: bundled with Windows OS</td>
</tr>
<tr>
<td></td>
<td>● Web browser: Internet Explorer 5.0 or later</td>
</tr>
<tr>
<td>Obtain appropriate logins and passwords for all equipment and software.</td>
<td>For example, obtain logins and passwords for the following components:</td>
</tr>
<tr>
<td></td>
<td>● Media Server</td>
</tr>
<tr>
<td></td>
<td>● Media Gateway</td>
</tr>
<tr>
<td></td>
<td>● auxillary equipment</td>
</tr>
<tr>
<td></td>
<td>● Communication Manager</td>
</tr>
<tr>
<td></td>
<td>These logins and passwords include the customer’s equipment.</td>
</tr>
<tr>
<td>Obtain the serial number of the Media Servers, if necessary.</td>
<td>You need a new RFA license file and authentication file.</td>
</tr>
<tr>
<td></td>
<td>You need the serial number from the reference IPSI and the SAP order number</td>
</tr>
<tr>
<td></td>
<td>to generate a new license file.</td>
</tr>
</tbody>
</table>

1 of 2
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the Communication Manager software distribution CD with the current software and firmware.</td>
<td>You will use this CD to install the software on the media server and upgrade the firmware. The most recent versions of the service packs are also on this CD.</td>
</tr>
<tr>
<td>Verify that you have the current pre-upgrade or pre-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support Web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current post-upgrade or post-migration service packs, if required, on your laptop.</td>
<td>Check which service packs you need and download files from the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware available.</td>
<td>Firmware for the IPSIs, C-LAN, MedPro, and VAL circuit packs are on the software CD. For the most current versions, go to the Avaya Support web site (<a href="http://avaya.com/support">http://avaya.com/support</a>). Click Downloads and select the product.</td>
</tr>
<tr>
<td>Download license and authentication files to your Services laptop.</td>
<td>New license and authentication files are necessary, obtain information and download files from the Remote Feature Activation (RFA) web site at <a href="http://rfa.avaya.com">http://rfa.avaya.com</a>.</td>
</tr>
<tr>
<td>Obtain the static craft password. (Avaya technicians only)</td>
<td>Call the ASG Conversant number, 800-248-1234 or 1-720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID, the FL, or IL number.</td>
</tr>
<tr>
<td>Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary.</td>
<td>This step is necessary if the configuration of the customer’s INADS alarming modem has changed as well as any changes to the system’s alarming configuration. ART is available only to Avaya associates; Business Partners, call 800-295-0099.</td>
</tr>
</tbody>
</table>
| Verify that you have copied all necessary files to your computer | These files may include:  
  ● service packs  
  ● license file  
  ● authentication file  
  ● firmware for programmable circuit packs |
Before you go on site for a migration from a DEFINITY system, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer’s network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaiw/">http://support.avaya.com/avayaiw/</a>).</td>
</tr>
</tbody>
</table>

**Pre-migration setup**

**Note:**

The pre-migration team should have completed the following tasks. If they were not all done, do not continue with the migration.

Some tasks need to be completed on site up to two weeks before beginning the actual migration.

Specifically, you need to:

- Freeze translations
- Send the translations to STS
- Get the translations back from STS via email
When you are migrating from a DEFINITY system, complete the following additional tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Remove all Mode II Data Modules prior to converting to the S8700 or S8710. | The S8700 and S8710 do not support the following data modules:  
  - System Ports  
  - PDMs (7400/8400 Data Modules)  
  - PktGateway  
  - Pkt Data Dataline  
  - Modem Pool  
  - System CDR PDMs  
  - System Features Printer PDMs  
| On the **IP Services** screen in the **Service Type** field, remove **Alarm1** and **Alarm2**. | You first may need to change the **System Parameters Maintenance** screen before you can make any changes to the **IP Services** screen.  
| On the **Trunk Group** screen, change the **Measured** field from **measured** to **none**. | This indicates trunk group measurement reports are not required. Remember to re-measure trunk groups.  
Type `list trunk-group` to get a list of trunk groups that are "measured" and need to be changed.  
| Check the **Dial Plan** (or **Dial Plan Analysis Table** screen depending on the release) screen for 0 assigned as **attd**. | If none, check the **Attendant Console** screens for any buttons with **attd-qcalls** or **attd-qtime btns**. Remove these if the 0 is not assigned as **attd**.  
| About 2 weeks before the migration, freeze the translations.  
  - Collect the translations locally via a spare flash card. | Contact the STS scheduling desk at 720-444-9418 for information on where and how to send the translations.  
The project manager sends the translations via flash disk to STS.  
STS then updates the translations to the latest version; this process may take 2 weeks. STS returns the translation reports and translation files to the project manager by email who sends them to the field technician.  
Verify that a copy of the existing translations exists so they can be re-entered later. |
### Pre-site migration checklist

Before you go on site, complete the following tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that you have the appropriate logins and passwords to access the media servers and server complex components.</td>
<td>When you have finished installing the authentication file, Communication Manager will have a password for all Avaya logins, including craft. This password is unique to the customer's media server. You can use the password the next time you log in as craft, provided you access the media server through the Services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access will still require an ASG challenge/response. This unique craft password remains valid until it is changed by installing a new authentication file.</td>
</tr>
<tr>
<td>Copy the translation file from STS to a directory on the Services laptop.</td>
<td>Files normally are in the 1-4 megabytes range.</td>
</tr>
<tr>
<td>Verify the voice network, dial plan, and E911 for remote locales were redesigned.</td>
<td>(if applicable)</td>
</tr>
<tr>
<td>Verify that all existing circuit packs will work with the new system.</td>
<td>Check the Minimum Vintage Table. Go to the Hardware and Software Compatibility Matrix (ftp://ftp.avaya.com/incoming/Up1cku9/tsoweb/media/minhardwarevintages.pdf).</td>
</tr>
<tr>
<td>Replace any TN799B/C C-LAN circuit packs.</td>
<td>Replace with the TN799DP circuit pack.</td>
</tr>
<tr>
<td>Replace 259A adapter and CAT3 cable.</td>
<td>Replace with the cable extender adapter (Comcode 848525887) and CAT5 or better cable.</td>
</tr>
<tr>
<td>Replace TN570 EI circuit packs.</td>
<td>Replace with TN570B, vintage 7 or later circuit packs.</td>
</tr>
</tbody>
</table>
Before you go on site for a migration from a DEFINITY system, complete the following additional tasks before beginning the migration:

### On site migration checklist

When you are on site, complete the following tasks before beginning the migration:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| If moving the UPSs and Ethernet switch(es) from the 2-post rack to the 4-post rack, make sure you have the correct equipment. | ● A crosspoint (Philips) screwdriver  
● Rail kits (700230741) for a 4-post rack for the UPSs  
● Cage nuts to attach the screws to the rack, if necessary  
● At least 2 people to lift the equipment |
| Verify that the EIA 310D 19-inch (48-cm) open equipment rack is grounded. | See the job aid titled Approved Grounds (555-245-772) |
| Verify correct cabling for the TN2312BP Internet Protocol Server Interface (IPSI) circuit packs. | The cabling should be labeled and run from the control hardware rack to the port networks. Appropriate connectivity should be provided. |
| Verify that you have all necessary equipment onsite. | See Installing and Configuring the Avaya S8700 Media Server (03-300145) for the list of required hardware. |
Documentation checklist for migrations

For a list of documents that Avaya recommends you have on hand for the migration, see Resources on page 30.

Additional documentation needed.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Start for Hardware Installation: Avaya S8700 Series Media Servers</td>
<td>A quick reference guide providing physical installation and connection information.</td>
</tr>
<tr>
<td>(555-245-703)</td>
<td></td>
</tr>
<tr>
<td>Administration for Network Connectivity for Avaya Communication Manager</td>
<td>Provides information on network connectivity.</td>
</tr>
<tr>
<td>(555-233-504)</td>
<td></td>
</tr>
<tr>
<td>Installing and Configuring an Avaya S8700 Series Media Server (03-300145)</td>
<td>Provides installation instructions for the S8700 and S8710 Media Servers.</td>
</tr>
</tbody>
</table>

Migration tasks

Perform these tasks to migrate an S8700 Media Server to an S8710 Media Server.

Pre-migration administration:

- Upgrading G150, G350, or G700 Media Gateways and LSPs (if being used) on page 715
- Verifying hardware on page 717

On the active S8700 Media Server:

1. Clearing the ARP cache on the laptop on page 718
2. Connecting to the active media server on page 719
3. Accessing the media server on page 719
4. Clearing alarms on page 720
5. Starting a SAT session on page 720
6. Recording all busyouts on page 720
7. Checking clock synchronization on page 720
8. Disabling scheduled maintenance on page 721
Migrating from an S8700 Media Server to an S8710 Media Server

9. Busyout MMI circuit packs (duplicated control only) on page 721
10. Checking for translation corruption on page 721
11. Checking the software release on page 722
12. Backing up the Linux migration upgrade set to the network on page 722
13. Backing up the Linux migration upgrade set to the services laptop on page 723
14. Recording the Product ID on page 727

On the standby S8700 Media Server:
1. Accessing the standby S8700 Media Server on page 727
2. Shutting down the S8700 Media Server on page 727

On the first S8710 Media Server:
1. Powering up the media server on page 728
2. Accessing the media server on page 728
3. Configuring Telnet for Windows 2000/XP (if necessary) on page 729
4. Installing Communication Manager on page 729
5. Reaccessing the media server using Telnet on page 731
6. Checking the software version on page 732
7. Changing the date and time on page 732
8. Copying files to the media server (if any) on page 732
9. Configuring the network parameters on page 732
10. Verifying connectivity to the network server on page 734
11. Installing the new license and Avaya authentication files on page 735
12. Restoring the Linux migration upgrade set from the network on page 735
13. Selecting the media server type on page 737
14. Restoring the Linux migration upgrade set from the services laptop on page 738
15. Installing software update (if any) on page 740
16. Verifying software update installation on page 741
17. Verifying media server configuration on page 741

On the second S8710 Media Server:
1. Installing Communication Manager and restoring files on page 742
2. Installing the new license and Avaya authentication files on page 742
3. Restoring the Linux migration upgrade set from the network on page 743
4. Restoring the Linux migration upgrade set from the services laptop on page 743
5. Installing software update, if any on page 744
6. Verifying media server configuration on page 744
7. Moving Ethernet cables on page 744

On the standby S8710 Media Server:
1. Accessing the standby media server on page 745
2. Pinging all the connections to the media server on page 746
3. Backing up files on the media server on page 746
4. Releasing alarm suppression (optional) on page 746
5. Setting the Product ID on page 746
6. Logging off all administration applications on page 747
7. Disconnecting from the media server on page 747

On the active S8710 Media Server:
1. Accessing the active media server on page 747
2. Resolving alarms on page 747
3. Backing up files on the media server on page 747
4. Releasing alarm suppression (optional) on page 748
5. Setting the Product ID on page 748
6. Logging off all administration applications on page 748
7. Disconnecting from the media server on page 748
8. Registering the system on page 748
9. Removing customer files from the services laptop on page 748

Pre-migration administration

Upgrading G150, G350, or G700 Media Gateways and LSPs (if being used)

Note:
If the customer has no G150, G350, or G700 Media Gateways or no local survivable processors (LSPs), skip these tasks and go to On the active S8700 Media Server on page 718.
If the configuration is using G150, G350, or G700 Media Gateways and media modules and newer firmware exists for them, you must upgrade the firmware on them first. If the media server is the primary controller for a G700 Media Gateway equipped with a LSP, you must upgrade the software on the LSPs (S8300) before you transfer control to the S8710 Media Servers. The correct order is:

1. Upgrade S8300 Media Server software to latest version if using LSPs.
2. Upgrade media gateway and media module firmware to latest version.
3. Transfer control to the S8710 Media Server.

**Upgrading software on the LSPs**

For more detailed information on the software upgrade process, see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).

**Note:**

Although the LSPs remain registered with the primary controller, the LSPs will not accept translations if they are running an older version of the software than the primary controller.

You may use the Upgrade Tool to upgrade the firmware on the G700 Media Gateway. For more detailed information on using the Upgrade Tool, see the *Job Aid: Upgrade Tool and Worksheets* (555-245-757).

You may be able to use the Upgrade Tool to upgrade the software on the S8300 Media Server, depending on the media server version. For more information see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100).

⚠️ **CAUTION:**

You must stop call processing on the LSPs during the migration process. You can do this procedure on either the active or standby media server.

**Upgrade firmware on media gateways and media modules**

For more detailed information on the firmware upgrade process, see *Installation and Upgrades for the Avaya G700 Media Gateway and Avaya S8300 Media Server* (555-234-100) or for more complete information.
Verifying hardware

You can reuse some of the equipment and cables when migrating a S8700 Media Server to S8710 Media Servers; see Reusable hardware on page 717. But you need new equipment to complete the migration; see Required new hardware on page 717.

Table 17: Reusable hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>408357002</td>
<td>Powerware 9125 uninterruptible power supply (UPS) with SNMP adapter installed (if Avaya-provided)</td>
<td>2</td>
</tr>
<tr>
<td>408427409</td>
<td>– US &amp; Canada</td>
<td></td>
</tr>
<tr>
<td>700181928</td>
<td>– International</td>
<td></td>
</tr>
<tr>
<td>108873233</td>
<td>10/100BaseT Ethernet switch (if Avaya-provided)</td>
<td>1 or more</td>
</tr>
<tr>
<td>108563123</td>
<td>– Avaya Ethernet P133 switch</td>
<td></td>
</tr>
<tr>
<td>108644451</td>
<td>– Avaya Ethernet P333 switch</td>
<td></td>
</tr>
<tr>
<td>700169121</td>
<td>External V.90 56K USB modem with cable (if used)</td>
<td>2</td>
</tr>
<tr>
<td>700170012</td>
<td>Green CAT5 Ethernet cables</td>
<td></td>
</tr>
<tr>
<td>700178056</td>
<td>– 5-meter (16 feet)</td>
<td>4</td>
</tr>
<tr>
<td>700178064</td>
<td>– 25-meter (82 feet)</td>
<td>2-68</td>
</tr>
<tr>
<td>700170004</td>
<td>Red CAT5 Ethernet cables (if duplicated control network)</td>
<td></td>
</tr>
<tr>
<td>700178072</td>
<td>– 5-meter (16 feet)</td>
<td>4</td>
</tr>
<tr>
<td>700178122</td>
<td>– 25-meter (82 feet)</td>
<td>2-68</td>
</tr>
<tr>
<td>700178122</td>
<td>– 50-meter (164 feet)</td>
<td>2-68</td>
</tr>
<tr>
<td>700170053</td>
<td>Black CAT5 Ethernet crossover cable for laptop computer</td>
<td>1</td>
</tr>
<tr>
<td>407063478</td>
<td>Electrostatic discharge (ESD) wrist strap</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 18: Required new hardware

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700326416</td>
<td>Avaya S8710 Media Server</td>
<td>2</td>
</tr>
<tr>
<td>700230741</td>
<td>4-post rail kits if moving UPSs to 4-post rack (Powerware code: 05146726-5501)</td>
<td>2</td>
</tr>
</tbody>
</table>

1 of 2
Table 18: Required new hardware (continued)

<table>
<thead>
<tr>
<th>Comcode</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>700290448</td>
<td>Compact 4-slot flash drive</td>
<td>2</td>
</tr>
<tr>
<td>700290430</td>
<td>Compact flash media</td>
<td>2</td>
</tr>
<tr>
<td>700287964</td>
<td>Avaya Communication Manager CD for Linux servers</td>
<td>1</td>
</tr>
<tr>
<td>700335797</td>
<td>Avaya Communication Manager, Media Gateways, and Servers documents CD (03-300151)</td>
<td>1</td>
</tr>
<tr>
<td>700169998</td>
<td>Blue CAT5 Ethernet crossover cable for duplication</td>
<td>1</td>
</tr>
<tr>
<td>700290422</td>
<td>Yellow single-mode fiber optic cable with LC connectors</td>
<td>1</td>
</tr>
<tr>
<td>700326382</td>
<td>– 4.6 meters (15 feet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– 100 meters (328 feet)</td>
<td></td>
</tr>
</tbody>
</table>

2 of 2

Migration tasks

On the active S8700 Media Server

Clearing the ARP cache on the laptop

To clear the ARP cache, perform the following steps:

**Note:**
Depending on your laptop computer’s operating system (generally Windows 2000), you may need to clear the Address Resolution Protocol (ARP) cache before entering a new IP address. If you enter an IP address, and your computer cannot connect, then you may need to clear the cache.

1. On your laptop computer, click **Start > Run** to open the **Run** dialog box.
2. Type **command** and press **Enter** to open an MS-DOS Command Line window.
3. Type **arp -d 192.11.13.6** and press **Enter** to clear the Address Resolution Protocol (ARP) cache in the laptop. This command responds with one of the following:
   - The command line prompt when the cache has been cleared.
   - The phrase: **The specified entry was not found**.

   This is returned when the specified IP address does not currently appear in the ARP cache.
Connecting to the active media server

To connect to the active media server, perform the following steps:

1. Connect the laptop to the Services port (2) on the back of the active media server using a cross-connect CAT5 cable.

See Figure 5: Services laptop computer connected directly to the S8700 Media Server.

Figure 5: Services laptop computer connected directly to the S8700 Media Server

Accessing the media server

To access the media server, perform the following steps:

1. Launch the Web browser.
2. Type 192.11.13.6 in the Address field and press Enter to open the logon page.
3. Log on as craft or dadmin and suppress alarm origination.
4. Click Launch Maintenance Web Interface to get to the Main Menu.
Clearing alarms

To clear alarms, perform the following steps:

1. If Release 1.x, under Alarms and Notification, click View Current Alarms.

   If Release 2.x, under Alarms, click Current Alarms.

2. Select the server alarms to be cleared and click Clear.

3. Resolve any major alarms using SAT commands and a terminal emulation application, such as Native Configuration Manager or MS HyperTerminal.

   Note:

   Tasks Starting a SAT session on page 720 through Checking for translation corruption on page 721 are SAT commands and can only be done on the active media server.

Starting a SAT session

To start a SAT session, perform the following steps:

1. Open a terminal emulation application, such as Native Configuration Manager or MS HyperTerminal.

2. Type 192.11.13.6 5023 and press Enter.

3. Log on as craft or dadmin and suppress alarm origination.

Recording all busyouts

To record busyouts, perform the following steps:

1. Type display errors and press Enter. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busied-out state after the upgrade.

Checking clock synchronization

To check clock synchronization, perform the following steps:

1. Type status sync and press Enter to verify that the clock synchronization is good.

2. Make sure the Switching Capabilities field shows enabled.

   Note:

   Because of a change in Release 1.3 of the Avaya Communication Manager, you do not need to disable Terminal Translation Initialization (TTI) before an upgrade or migration or enable it afterwards.
Disabling scheduled maintenance

To prevent scheduled daily maintenance from interfering with the upgrade, perform the following steps:

1. Type `change system-parameters maintenance` and press Enter.
2. If scheduled maintenance is in progress, set the Stop Time field to 1 minute after the current time.

or

If scheduled maintenance is not in progress, set the Start Time field to a time after the upgrade will be completed.

For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 90 minutes, set the Start Time field to 21:30.

Busyout MMI circuit packs (duplicated control only)

⚠️ CAUTION:
Multimedia-to-voice station calls are *not* preserved on an upgrade. Failure to busy-out the TN787 Multimedia Interface (MMI) circuit packs results in unusable TN787 and TN787 Multimedia Voice Conditioner ports.

To busyout MMI circuit packs, perform the following steps:

1. Type `display system-parameters customer-options` and press Enter. On screen 2 or 3 under the Multimedia Call Handling (MMCH) options, check the Basic and Enhanced fields.
2. If either the Basic or Enhanced field is y, type `list configuration all` and press Enter to locate all MMI (TN787) circuit packs.
3. If there are MMI circuit packs, type `busyout board `uucss` and press Enter for each MMI circuit pack. The variable `uucss` is the slot location (UU = cabinet, C = carrier, SS = slot).

Checking for translation corruption

To check for translation corruption, perform the following steps:

1. Type `newterm` and press Enter.
2. If you do not get a login prompt, but instead see the following message

   **Warning: Translation corruption detected . . .**

   then follow the normal escalation procedure for translation corruption before continuing the upgrade.
Checking the software release

To check the software release, perform the following steps:

1. Under Server Upgrades, click **Software Version** to see what software release is on the media server.
2. If release 1.0 or 1.1, upgrade to release 1.3.2.
   If release 1.2 or 1.3, apply the upgrade patch.

Backing up the Linux migration upgrade set to the network

**Note:**
Because the S8710 Media Server does not have a PCMCIA flash drive, you must back up the files to either the customer’s network or the services laptop so they can be restored to the S8710 Media Server later in the process. If backed up to the services laptop, skip this procedure and go to **Backing up the Linux migration upgrade set to the services laptop** on page 723.

**Note:**
When backing up the files, the system backs up the necessary Avaya Call Processing (ACP) translations and other files and labels it *upgrade*.

**Note:**
If the customer’s FTP server is not available, go to **Backing up the Linux migration upgrade set to the services laptop** on page 723.

⚠️ **Important:**
Do not back up or restore any sets or files other than the Linux migration *upgrade* set.

To back up the Linux migration set to the network, perform the following steps:

1. For release 1.x, under Server Configuration and Upgrades, click **Linux Migration (Backup)**.
   For release 2.x, under Server Upgrades, click **Linux Migration (Backup/Restore)**
2. For release 1.x, select **Initiate new backup** and click **Submit**.
   For release 2.x, select **Initiate new backup or restore** and click **Submit**.
3. Under Backup Method, select FTP; fill in the **User Name**, **Password**, **Host Name** (must use the host IP address), and **Directory** fields for where you are backing up the files.
4. Click **Submit**.
5. Click **Status** to view the Backup History.
6. Check the box next to the file being backed up and click **Check Status**. When the backup is complete, the following message displays:

**Backup is finished**

⚠️ **CAUTION:**

Check the text to verify that there are no error messages.

7. Go to [Recording the Product ID](#) on page 727.

**Backing up the Linux migration upgrade set to the services laptop**

To back up the Linux migration *upgrade* set from the S8700 Media Server to the Services laptop, perform the following steps:

1. On the services laptop, access the media server. See [Accessing the media server](#) on page 719 and return here.

2. Under Security, click **FTP**.

   The system displays the **FTP** window.

   ![FTP](image)

   **FTP**

   The FTP Web page lets you enable or disable file transfer protocol (FTP) service on the Avaya media server. This allows an FTP application running on another computer or server to transfer files to or from the media server.

   `vsftpda: disabled
    anonymous: enabled`

   [Start Server] [Help]

3. Click **Start Server**.
4. Under Server Upgrades, click **Linux Migration (Backup / Restore)**.

The system displays the **Linux Migration - Backup / Restore** window.

![Linux Migration - Backup/Restore](Image)

- **Warning**: This is a special upgrade scenario. Do not use this page unless instructed to do so by the upgrade release notes.
- Display status.
- Initiate new backup or restore.

Submit  Help
5. Select **Initiate new backup or restore** and click **Submit**.

The system displays the **Linux Migration - Backup / Restore Initiate** window.

<table>
<thead>
<tr>
<th><strong>Linux Migration - Backup/Restore Initiate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Warning:</strong> This is a special upgrade scenario. Do not use this page unless instructed to do so by the upgrade release notes.</td>
</tr>
</tbody>
</table>

**Backup Method**

- **FTP**
  - **User Name** field: type **anonymous**
  - **Password** field: enter your email ID
  - **Host Name** field: enter the exact server hostname for the server you are on
  - **Directory** field: type **/pub**

**Restore Method**

- **FTP**
  - **User Name** field: type **anonymous**
  - **Password** field: enter your email ID
  - **Host Name** field: enter the exact server hostname for the server you are on
  - **Directory** field: type **/pub**

6. In the Backup Method section, select **FTP**.

7. In the following fields:
   - **User Name** field: type **anonymous**
   - **Password** field: enter your email ID
   - **Host Name** field: enter the exact server hostname for the server you are on
   - **Directory** field: type **/pub**

8. Click **Submit**.
9. Under Server Upgrades, click **Linux Migration (Backup / Restore)** to review the status of the backup.

The system displays the **Linux Migration - Backup / Restore Status** window.

10. Select **Display status**

11. Click **Submit**.

The system displays the **Linux Migration - Backup / Restore Status** window.

![Linux Migration - Backup/Restore Status](image)

This window may display a **BACKUP COMPLETE** message with possible series 200 error messages. You can ignore these series 200 error messages and proceed with the backup.

12. On the services laptop, type `ftp 192.11.13.6` and press **Enter** to initiate an FTP session from the laptop to the S8700 Media Server.

13. For the login, type **anonymous** and press **Enter**.

14. For the password, type your email ID and press **Enter**.

15. Type `cd pub` and press **Enter**.

16. Type `bin` and press **Enter** to make the transfer in a binary format.
17. Type `get name` where `name` is the name of the Linux migration `upgrade` set and press Enter.

18. Log off the system.

**Recording the Product ID**

To record the Product ID, perform the following steps:

1. Click **Start** > **Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as `craft` or `dadmin`.
4. At the prompt, type `productid` and press **Enter**.

Record the product ID for future use.

---

**On the standby S8700 Media Server**

**Accessing the standby S8700 Media Server**

To access the standby S8700 Media Server, perform the following steps:

1. Clear the ARP cache on the laptop, if necessary. See **Clearing the ARP cache on the laptop** on page 718 and return here.
2. Disconnect the laptop from the active media server and connect it to the Services port (2) on the standby media server.
3. Log in. See **Accessing the media server** on page 719 and return here.
4. Repeat:
   - **Backing up the Linux migration upgrade set to the network** on page 722 and return here, or
   - **Backing up the Linux migration upgrade set to the services laptop** on page 723 and return here

**Shutting down the S8700 Media Server**

⚠️ **CAUTION:**

Make sure you are connected to the *standby* S8700 Media Server.

To shut down the standby S8700 Media Server, perform the following steps:

1. Under Server, click **Shutdown Server**.
2. On the **Shutdown This Server** window:
   - select **Immediate Shutdown**
   - deselect **Restart Server after Shutdown**
   - select **Shut down even if this is the active server**
3. Click **Shutdown**.
4. Disconnect the laptop from the Services port.
5. Disconnect the power cord from the UPS.

---

**On first S8710 Media Server**

*Note:* This media server becomes media server 1.

### Powering up the media server

To power up the media server, perform the following steps:

*Note:* You must place the CD in the drive before powering up.

1. Use a paperclip to open the CD-ROM drive on the media server.
2. Place the CD with Communication Manager in the CD-ROM drive.
3. Connect the AC power cord to media server 1 and to UPS 1 to power it up.

⚠️ **CAUTION:**

Be careful not to push the UID button located above the power button. If you push this button, it will reset the UID on the media server.

4. Push the power button.

### Accessing the media server

To access the media server, perform the following steps:

1. Clear the ARP cache from the laptop if necessary. See Clearing the ARP cache on the laptop on page 718 and return here.
2. Connect the laptop to the Services port (2) on the back of the media server using a cross-connect cable.
3. Wait at least 3 minutes after powering up before starting a Telnet session to access the information on the CD.
Configuring Telnet for Windows 2000/XP (if necessary)

The Microsoft Telnet application may be set to send a carriage return (CR) and line feed (LF) each time you press Enter. The installation program sees this as 2 key presses. If running Windows 2000/XP, you need to correct this before you copy the Remaster Program to the hard drive.

To set up Telnet, perform the following steps:

1. Click Start > Run to open the Run dialog box.
2. Type telnet and press Enter to open a Microsoft Telnet session.
3. Type display and press Enter to see the current settings. If message says
   Sending only CR
   then close the dialog box.
   If message says
   Sending both CR & LF
   then continue with step 4.
4. Type unset crlf and press Enter.
5. Type display and press Enter to verify that the settings changed. The message says
   Sending only CR
6. Close the dialog box.

Installing Communication Manager

The following steps install Avaya Communication Manager on the media server.

Note:
   Use a telnet session to access the information on the CD.
1. From the laptop Start menu, click Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press **Enter** to view the first screen.

```
What do you want to do?
The hard drive is currently Partitioned
Choose One

(X) Install  Install or Upgrade MV Software
( ) Shell    Boot to Rescue Bash Shell
( ) Quit     Reboot the server

< OK >
```

**Note:**
To navigate on these screens, use the arrow keys to move to an option, then press the space bar to select the option. Press **Enter** to submit the screen.

3. Select **Install**, make sure <OK> is highlighted, and press **Enter**.
4. On the **Select Release Version** screen, make sure the Build line and <OK> is highlighted. Press **Enter** to partition the hard drive and reformat the partitions.

Once the drive is properly configured, the program begins the installation process and reports the progress.

```
21:26:38 | copying iputils-20020124-8.i386.rpm
21:26:38 | copying libattr-2.0.8-3.i386.rpm
21:26:38 | copying libcap-1.10-12.i386.rpm
21:26:39 | copying libelf-0.8.2-2.i386.rpm
21:26:39 | copying libgcc-3.2-7.i386.rpm
21:26:39 | copying libjpeg-6b-21.i386.rpm
21:26:39 | copying libtermcap-2.0.8-31.i386.rpm
21:26:39 | copying libtool-libs-1.4.2-12.i386.rpm
21:26:39 | copying losetup-2.11r-10.i386.rpm
21:26:39 | copying lrzsz-0.12.20-14.i386.rpm
21:26:39 | copying lsof-4.63-2.i386.rpm
21:26:39 | copying ltrace-0.3.10-12.i386.rpm
21:26:39 | copying minetty-1.00-3.i386.rpm
21:26:39 | copying mktemp-1.5-16.i386.rpm
21:26:39 | copying ncompress-4.2.4-31.i386.rpm
21:26:40 | copying net-tools-1.60-7.i386.rpm
21:26:40 | copying patch-2.5.4-14.i386.rpm
21:26:40 | copying pcre-3.9-5.i386.rpm
21:26:40 | copying popt-1.8-0.69AVI.1386.rpm
21:26:40 | copying rdate-1.2-5.i386.rpm
21:26:40 | copying rusers-0.17-21.i386.rpm
21:26:40 | copying setserial-2.17-9.i386.rpm
```

These processes can take up to 20 minutes. When the media server is ready to reboot, the CD-ROM drive drawer opens. You must remove the CD from the drive at this time.

The reboot may take up to 3 minutes. The telnet session drops automatically.

**Reaccessing the media server using Telnet**

To reaccess the media server using Telnet, perform the following steps:

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter** to see if you get a login prompt. Repeat until you get the login prompt.
3. Log in as `craft`.
4. Log onto the Maintenance Web Interface. See [Accessing the media server](#) on page 719 and return here.
Migrating from an S8700 Media Server to an S8710 Media Server

Checking the software version

To check the software version, perform the following steps:
2. Verify the software version.

Changing the date and time

To change the date and time, perform the following steps:
1. Under Server, click Server Date/Time.
2. Change the date, time, and time zone as needed.
3. Click Submit to effect the changes.

Copying files to the media server (if any)

You must copy the required files from the services laptop to the media server. This includes the software update file and firmware for programmable circuit packs.

Note:
Do not copy the Linux migration upgrade set using this method.

Note:
The latest firmware for the programmable circuit packs and media modules may be on the CD.

Configuring the network parameters

⚠️ Important:
If you backed up files to the services laptop, do not perform this procedure. Go to Selecting the media server type on page 737.

Note:
If you backed up to the customer’s network, you must readminister the Ethernet port connecting to the customer’s network. You must have the host name, IP address, subnet mask and default gateway for the two media servers and the active server as well as the IP address for the Ethernet port connecting to the customer’s network.
To configure the network parameters, perform the following steps:

1. Under Server Configuration, click **Configure Server** to open the first page (Select server type) of the Configure Server process.

   ![Configure Server](image)

   - Select server type:
     - Avaya S8700 Series Media Server for Multi-Connect configuration
     - Avaya S8700 Series Media Server for IP Connect configuration
   - Click **Continue** to proceed.

2. Select the appropriate server type and click **Continue**.

3. Click **Continue** through the Review Notices to get to the **Specify how you want to use this wizard** page.

4. Select **Configure individual services** and click **Continue**.

5. Click **Set Identities** from the main menu.

6. On the **Set Server Identities** window:
   - Populate the **Host Name** fields
   - In the **This is server** field, select 1
   - Assign the Ethernet ports and click **Continue**

7. In the **Configure Ethernet Interfaces** window, fill in the correct IP addresses, Gateway, and Subnet mask (or use the default addresses) for the Ethernet port connected to the customer LAN and select AUTOSENSE for the speed.
   - **S8710 IP**: Eth 0
   - **S8710 MC**: Eth 4
   - Click **Change** to update and reboot the media server. When the screen displays **Successfully configured ethernet interfaces.**

   The Ethernet ports are configured.

8. Click **Close Window** to close the Configure Server wizard and go to **Verifying connectivity to the network server** on page 734.
Verifying connectivity to the network server

To verify that the Ethernet port is working, ping from the media server the network server where the backup files are stored.

**Note:**
You may need to restart your browser before doing the next steps.

1. Move the Ethernet cable connected to the customer's network from the shut down standby S8700 Media Server to the S8710 Media Server (IP: Eth0; MC: Eth4). See Port connections on the back of the S8710 Media Server on page 734.

**Figure 6: Port connections on the back of the S8710 Media Server**

**Figure notes:**

1. Ethernet 0 - to control network A (CNA) if dedicated control network or to customer’s network if nondedicated control network (straight-through CAT5 cable)
2. Ethernet 1 - to Services laptop (cross-connect CAT5 cable)
3. Ethernet 2 - to duplicated media server (cross-connect CAT5 cable)
4. Ethernet 3 - to control network B (CNB) if duplicated control network (used in Multi-Connect; not used in IP-Connect)
5. Ethernet 4 - to customer's network if dedicated control network (straight-through CAT5 cable)
6. Not used

2. Under Diagnostics, click **Ping**.
3. Select Host Name or IP Address and type the IP address of the server where the system files are stored
4. Click **Execute Ping**.
   If you can successfully ping the server, then you can proceed to restore the backed up sets of files.

### Installing the new license and Avaya authentication files

For a migration, you need to load a new license file and Avaya authentication file.

1. Under Security, click **License File**, select **Install the license previously downloaded**, then click **Submit** to install the license file.
   The system tells you the license is installed successfully.
2. Under Security, click **Avaya Authentication**, then click **Install**.
   The system tells you the authentication is installed successfully.

### Restoring the Linux migration upgrade set from the network

If you backed up files to the services laptop, do **not** use this procedure. Go to [Restoring the Linux migration upgrade set from the services laptop](#) on page 738.

⚠️ **CAUTION:**
   You must restore S8700 Media Server 1 files to S8710 Media Server 1 and S8700 Media Server 2 files to S8710 Media Server 2. On this media server, restore the backup set from the standby S8700 Media Server (media server 1).

⚠️ **CAUTION:**
   Restore must be run only once. Running restore more than once may corrupt the system data. If a restore appears to have not completed, check the Backup History and Backup Logs on the Maintenance Web Interface and check the system log through the Linux command line interface. If all of these sources indicate that a restore has not completed, you can safely rerun the restore.

⚠️ **CAUTION:**
   You will receive a network transfer protocol (NTP) failure notice since media server 1 cannot read NTP because it does not have a physical connection. Continue with the procedure.

To restore the Linux migration *upgrade* files, perform the following steps:

1. Under Server Upgrades, click **Linux Migration (Backup/Restore)**.
2. Select **Initiate new backup or restore** and click **Submit**
3. Under Restore Method, select **FTP**; fill in the **User Name**, **Password**, **Host Name**, and **Directory** fields for the location of the backup files.
4. Click **Submit**.
5. Select the upgrade set to restore and both force options and click Restore.

If the upgrade version is a mismatch, click Force Restore.

6. Click Status to view the restore progress.

7. Select the upgrade set and click Check Status to view the restore progress.

8. The restoration is complete when the following message displays:

   Backup: 0: Restore of <filepath/filename> is completed successfully.

This procedure assumes that the license and authentication file are on the services laptop. The following steps downloads the files to the media server.

9. Under Miscellaneous, click Download Files.

10. Click Browse next to the top field to open the File Upload window on your laptop. Find the license file that you need to upload to the media server.

11. Repeat step 2 for the second field to find the Avaya authentication file.

12. When all the files to be uploaded show in the fields, click Load File to upload all the files to the media server.

   Once the license and Avaya authentication files are downloaded to the media server, you must install them.
Selecting the media server type

Note:
If you skipped the previous task, you need to select the media server type before you install the post-upgrade patch.

To following steps determine the media server type, perform the following steps:
1. Under Server Configuration, click **Configure Server** to open the first page (Select server type) of the Configure Server process. (If you did this earlier, you will not see this screen.)

2. Select the appropriate server type and click **Continue**.

   The system displays **Set Identities** window.

3. Click **Cancel**.
Restoring the Linux migration upgrade set from the services laptop

⚠️ CAUTION:
You must restore S8700 Media Server 1 files to S8710 Media Server 1 and S8700 Media Server 2 files to S8710 Media Server 2. On this media server, restore the backup set from the standby S8700 Media Server (media server 1).

⚠️ CAUTION:
Restore must be run only once. Running restore more than once may corrupt the system data. If a restore appears to have not completed, check the Backup History and Backup Logs on the Maintenance Web Interface and check the system log through the Linux command line interface. If all of these sources indicate that a restore has not completed, you can safely rerun the restore.

⚠️ CAUTION:
You will receive a network transfer protocol (NTP) failure notice since media server 1 cannot read NTP because it does not have a physical connection. Continue with the procedure.

Note:
If you performed Restoring the Linux migration upgrade set from the network on page 735, skip this procedure.

To restore the Linux migration upgrade set from the services laptop to the S8710 Media Server, perform the following steps:

1. Access the media server. See Accessing the media server on page 719 and return here.
2. Under Server Upgrades, click Linux Migration (Backup / Restore).
   The system displays the Linux Migration - Backup / Restore window.

   ![Linux Migration - Backup/Restore](image)

   The Linux Migration Backup Restore Web page lets you perform backups and restores during a Linux Migration.

   ⚠️ Warning: This is a special upgrade scenario. Do not use this page unless instructed to do so by the upgrade release notes.

   ○ Display status.
   ✅ Initiate new backup or restore.

   Submit  Help
3. Select **Initiate new backup or restore** and click **Submit**.

   The system displays the **Linux Migration - Backup / Restore Initiate** window.

4. In the **Restore Method** section, select **Local Directory**.

5. Type `/var/home/ftp/pub` as the destination location of the Linux migration **upgrade** set and press **Enter**.

6. Click **Submit**.
7. Under Server Upgrades, click **Linux Migration (Backup / Restore)** to review the status of the backup.

   The system displays the **Linux Migration - Backup / Restore Status** window.

   ![Linux Migration - Backup/Restore](image)

   8. Select **Display status**.

   9. Click **Submit** to view the status of the restore process.

      The system displays the **Linux Migration - Backup / Restore Status** window.

      ![Linux Migration - Backup/Restore Status](image)

      This window may display a **BACKUP COMPLETE** message with possible series 200 error messages. You can ignore these series 200 error messages and proceed with restoring the Linux migration **upgrade** set.

### Installing software update (if any)

**Note:**

Skip this procedure if there is no Communication Manager software update file to install.
To use a telnet session to install the software update file, perform the following steps.

1. Click Start > Run to open the Run dialog box.
2. Type `telnet 192.11.13.6` and press Enter.
3. Log in as `craft`.
4. Type `cd /var/home/ftp/pub` and press Enter to access the pub directory.
5. At the prompt, type `ls -ltr` and press Enter to list files in the pub directory.

   The media server displays a list of files in the FTP directory. Verify that the directory contains the Communication Manager .tar.gz file you have uploaded, if any.
6. Type `update_unpack update.tar.gz`, where `update` is the release or issue number of the latest software update file. (For example, `00.0.411.7-xxxx.tar.gz`). Press Enter.
7. Type `update_show` and press Enter to list Communication Manager files to verify the new software update file was unpacked.
8. Type `update_activate update`, where `update` is the release or issue number of the latest software update file. (For example, `00.0.411.7-xxxx`). Do not use the .tar.gz extension at the end of the file name). Press Enter.

   The media server may reboot (reset system 4). If it reboots, it also may display the message `/opt/ecs/sbin/drestart 2 4 command failed.`

   Ignore this message. You must wait until the restart/reset completes before entering additional commands.

   The media server displays a message that the software update (patch) was applied.
9. Type `update_show` again and press Enter to list Communication Manager files to verify the new software update file was activated.

**Verifying software update installation**

To verify the software update installation, perform the following steps:

2. Verify that the new software update is listed.

**Verifying media server configuration**

To verify the media server configuration, perform the following steps:

1. Under Server Configuration, click Configure Server to start the configure server process.
2. Click Continue through the Review Notices to get to the Specify how you want to use this wizard page.
3. Select Configure all services using the wizard.
4. Click **Continue** through all the screens, checking for new screens and new fields on existing screens as mentioned in the Software Release Letter.

**Note:**
You must click through all the screens whether there are changes or not.

**Note:**
You may need to reset the port speeds for the Ethernet interfaces. The Ethernet speeds should be set to **AUTO-SENSE**.

5. When you complete all the new fields, as necessary, click **Continue** on the Update System screen. The Update System screen displays each configuration task as it completes. When done, the screen displays the line **All configuration information was entered**.

6. Click **Close Window** to close the Configure Server wizard.

7. Disconnect from the media server.

---

**On second S8710 Media Server**

**Note:**
This media server becomes media server 2.

**Installing Communication Manager and restoring files**

To install Communication Manager and restore files, perform the following steps:

1. Repeat tasks **Powering up the media server** on page 728 through **Configuring the network parameters** on page 732 and return here.

   **CAUTION:**
   Make sure you restore the files from media server 2.

**Installing the new license and Avaya authentication files**

For a migration, you need to load a new license file and Avaya authentication file.

1. Under Security, click **License File**, select **Install the license previously downloaded**, then click **Submit** to install the license file.

   The system tells you the license is installed successfully.

2. Under Security, click **Avaya Authentication**, then click **Install**.

   The system tells you the authentication is installed successfully.
Restoring the Linux migration upgrade set from the network

If you backed up files to the Services laptop, do not use this procedure. Go to Restoring the Linux migration upgrade set from the services laptop on page 743.

⚠️ CAUTION:
You must restore S8700 Media Server 1 files to S8710 Media Server 1 and S8700 Media Server 2 files to S8710 Media Server 2. On this media server, restore the backup set from the standby S8700 Media Server (media server 1).

⚠️ CAUTION:
Restore must be run only once. Running restore more than once may corrupt the system data. If a restore appears to have not completed, check the Backup History and Backup Logs on the Maintenance Web Interface and check the system log through the Linux command line interface. If all of these sources indicate that a restore has not completed, you can safely rerun the restore.

⚠️ CAUTION:
You will receive a network transfer protocol (NTP) failure notice since media server 1 cannot read NTP because it does not have a physical connection. Continue with the procedure.

To restore the Linux migration upgrade set, perform the following steps:

1. Under Server Upgrades, click Linux Migration (Backup/Restore).
2. Select Initiate new backup or restore and click Submit.
3. Under Restore Method, select FTP; fill in the User Name, Password, Host Name, and Directory fields for the location of the backup files.
4. Click Submit.
5. Select the Linux migration upgrade set to restore and both force options and click Restore.
   If the Linux migration upgrade set is a mismatch, click Force Restore.
6. Click Status to view the restore progress.
7. Select the upgrade set and click Check Status to view the restore progress.
8. The restoration is complete when the following message displays:
   Backup: 0: Restore of <filepath/filename> is completed successfully.

Restoring the Linux migration upgrade set from the services laptop

To restore the Linux migration upgrade set from the Services laptop to the S8710 Media Server, perform the following steps:

1. Repeat Restoring the Linux migration upgrade set from the services laptop on page 738 for media server 2 and return here.
Installing software update, if any

To install software updates, perform the following steps:

1. Repeat tasks Installing software update (if any) on page 740 through Verifying software update installation on page 741 for media server 2 and return here.

Verifying media server configuration

To verify the media server configuration, perform the following steps:

1. Repeat task Verifying media server configuration on page 741 on the active server and return here.

Transferring system control to the S8710 Media Servers

⚠️ CAUTION:
There may be an interruption of service up to 30 minutes if moving the Ethernet switch(es) and UPSs.

Moving Ethernet cables

Moving the CAT5 cables from the S8700 Media Servers to the S8710 Media Servers transfers control to the S8710 Media Servers.

Moving cables to the S8710 Media Server (media server 1)

To move the cables, perform the following steps:

1. Disconnect the CAT5 duplication cable (blue) from the stopped S8700 Media Server. Do not connect to the S8710 Media Server at this time.
2. Disconnect the CAT5 cables from the stopped S8700 Media Server and connect them to the busied out S8710 Media Server (media server 1).
   - customer network (black or blue)
   - CNA (green)
   - CNB (red)
3. Connect the services laptop to the active S8700 Media Server.
5. Connect the services laptop to the S8710 Media Server (media server 1).
Releasing the media server

To release the S8710 Media Server (media server 1), perform the following steps:

1. Click **Start** > **Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft**.
4. Type `server -r` and press **Enter**.

Moving cables to the S8710 Media Server (media server 2)

To move the cables, perform the following steps:

1. Disconnect the cables from the previously *active* S8700 Media Server.
2. Connect the cables to the *busied out* S8710 Media Server (media server 2).

Completing the cable migration

To complete the cable migration, perform the following steps:

1. Connect the CAT5 duplication cable to both media servers.
2. Connect the new yellow LC fiber optic cable to both media servers.
3. Connect the services laptop to the S8710 Media Server (media server 2).
4. Release the S8710 Media Server (media server 2). (See **Releasing the media server** on page 745 and return here.)
5. Move the modem connections from the S8700 Media Servers to the S8710 Media Server.

On the standby S8710 Media Server

**Note:**

This section applies to media server 2.

Accessing the standby media server

To access the standby media server, perform the following steps:

1. Clear the ARP cache on the laptop if necessary. See **Clearing the ARP cache on the laptop** on page 718 and return here.
2. If not already connected to the standby media server, connect to it.
3. Log in. (See **Accessing the media server** on page 719 and return here.)
Pinging all the connections to the media server

To ping all connections to the media server, perform the following steps:
1. Under Diagnostics, click **Ping**.
2. Select **Other server(s), All IPSIs, UPS(s), Ethernet switches** and click **Execute Ping**.

Backing up files on the media server

To back up files on the media server, perform the following steps:
1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets and the backup method.
   - Select **Save ACP translations prior to backup** to save the translations to the hard drive before saving it to the backup media or customer’s network.
3. Click **Start Backup** to begin the back up process.

Releasing alarm suppression (optional)

If you complete the migration well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.
1. Click **Start > Run** to open the **Run** dialog box
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -n` and press **Enter** to release alarm suppression.
5. Log off.

Setting the Product ID

**Note:**
It is different from the one on the S8700 Media Server.

To set the Product ID, perform the following steps:
1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. At the prompt type `productid -p number` and press **Enter**. The variable **product_id** is the product ID you received from the customer or the ART tool.
Logging off all administration applications
When you have completed all the administration, log off all the applications used.

Disconnecting from the media server
Disconnect the laptop from the media server.

On the active S8710 Media Server

Note:
This section applies to media server 1.

Accessing the active media server
To access the active media server, perform the following steps:
1. Clear the ARP cache on the laptop if necessary. See Clearing the ARP cache on the laptop on page 718 and return here.
2. Connect to the active media server.
3. Log in. See Accessing the media server on page 719.

Resolving alarms
To resolve alarms, perform the following steps:
1. Under Alarms and Notification, click Current Alarms.
2. Select the server alarms to be cleared and click Clear.
3. Resolve new alarms since the migration using SAT commands and the Maintenance Commands for Avaya Communication Manager 2.1, Media Gateways and Servers and Maintenance Alarms for Avaya Communication Manager 2.1, Media Gateways and Servers books.

Backing up files on the media server
To back up files on the media server, perform the following steps:
1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets and the backup method.
   Select Save ACP translations prior to backup to save the translations to the hard drive before saving it to the backup media or customer’s network.
3. Click Start Backup to begin the back up process.
Releasing alarm suppression (optional)

To release alarm suppression, perform the following steps:

1. Repeat task Releasing alarm suppression (optional) on page 746 on the active media server and return here.

Setting the Product ID

To set the Product ID, perform the following steps:

1. Repeat task Setting the Product ID on page 748 on the active media server and return here.

Logging off all administration applications

When you have completed all the administration, log off all the applications used.

Disconnecting from the media server

Disconnect the laptop from the media server.

Registering the system

Follow the existing process and procedures to register the Avaya S8710 Media Server.

Removing customer files from the services laptop

Remove the customer Linux migration upgrade set from the services laptop.
Chapter 6: Migrating to a G700 Media Gateway

Branch offices equipped with an S8300 Media Server inserted in a G250 or a G350 Media Gateway, often outgrow their capacities, and need to grow. In this chapter, scenarios describe an S8300B Media Server, inserted in a G250 or a G350 Media Gateway, being moved to a G700 Media Gateway. The S8300B can be configured either as an Internal Call Controller (ICC) or as a local survivable processor (LSP), and is assumed to be running Communication Manager release 2.1 or later.

Pre-requisites for migrating to a G700 Media Gateway

Perform the tasks in this section before going to the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● In particular, collect the primary server configuration information for the new gateway/LSP; that is, host name and IP address, primary controller IP address(es), DNS/DHCP IP addresses (if used), UPS IP addresses (if used), static routes data (if used), time server data, modem return route data (if supported by Avaya Services).</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong></td>
</tr>
<tr>
<td></td>
<td>Since you will be installing the S8300 in a G700 media gateway, you need the gateway’s serial number for the license and authentication files.</td>
</tr>
<tr>
<td>3. Create/update license and authentication files on the RFA web site.</td>
<td>Go to <a href="http://rfa.avaya.com">http://rfa.avaya.com</a> and create new license and authentication files for the G700/LSP.</td>
</tr>
</tbody>
</table>
Migrating to a G700 Media Gateway

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Obtain post-migration service pack file, if any.</td>
<td>Go to <a href="http://support.avaya.com">http://support.avaya.com</a> and click Downloads to see if there is a service pack file available for the Communication Manager release currently running on the S8300B, for example, release 2.1, load 411.7. If there is a service pack file available, download it and take it to the site.</td>
</tr>
</tbody>
</table>

**Migration module**

- [Migrating a G350 Media Gateway to a G700 Media Gateway](#)
Migrating a G350 Media Gateway to a G700 Media Gateway

Introduction

This module provides a high-level list of tasks for moving an S8300 LSP in a G350 gateway to a G700 gateway. To complete these tasks, you need the following additional documents:

- *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100*. To obtain this document, go to [http://support.avaya.com](http://support.avaya.com) and navigate to *Installations, Migrations, Upgrades & Configurations*; then select the appropriate document.

- *Administrator Guide for Avaya Communication Manager, 03-300509.*

In this module, an S8300B Media Server, inserted in a G350 media gateway, is moved to a G700 media gateway. In both cases, the S8300B is configured as an LSP, and it is assumed to be running Communication Manager release 2.1 or later.

Follow the detailed procedures in *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100*, for most of the tasks in this module.
Pre-requisites

Perform the tasks in this section before going to the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
● In particular, collect the primary server configuration information for the new gateway/LSP; that is, host name and IP address, primary controller IP address(es), DNS/DHCP IP addresses (if used), UPS IP addresses (if used), static routes data (if used), time server data, modem return route data (if supported by Avaya Services).  
**Note:** Since you will be installing the S8300 in a G700 media gateway, you need the gateway’s serial number for the license and authentication files. |
| 2. Create/update license and authentication files on the RFA web site. | Go to [http://rfa.avaya.com](http://rfa.avaya.com) and create new license and authentication files for the G700/LSP. |
| 3. Obtain post-migration service pack file, if any. | Go to [http://support.avaya.com](http://support.avaya.com) and check under Downloads to see if there is a service pack file available for the Communication Manager release currently running on the S8300B, for example, release 2.1, load 411.7. If there is a service pack file available, download it and take it to the site. |

Tasks checklist

The tasks include:

1. Installing the G700 hardware.
2. Transferring the S8300B Media Server from the G350 to the G700.
3. Transferring media modules to the G700.
4. Removing the administration of the G350 and the LSP from the primary controller.
5. Reassigning endpoints to the new S8300/G700.
6. Updating the DHCP server alternate controller list.
7. Updating the gateway MGC list.
8. Configuring the G700 and the S8300B in LSP mode.

### Tasks

Perform the tasks in this section at the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Go to the standard documentation</strong></td>
<td></td>
</tr>
<tr>
<td>Use <em>Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server</em>, 555-234-100, Issue 8, June 2005.</td>
<td>To convert the G350 LSP to a G700 LSP, you complete selected tasks from Chapters 2 and 3. You need to complete only some of the tasks in these chapters. The specific tasks are identified by page number in the left-hand column. The subtasks to perform or skip are listed in the right-hand column. It is important to note where the task is performed. Most of the tasks are done on a server or gateway — on the LSP S8300B, on the primary controller for the LSP, on a DHCP server, or on the G700 media gateway processor (MGP). The headings in the table indicate on which of these devices the task is performed.</td>
</tr>
<tr>
<td><strong>On the G350 LSP</strong></td>
<td></td>
</tr>
<tr>
<td>1. Backup all system files — translations, OS, and security backup sets. Start on page 229.</td>
<td>These backup sets will be restored on the G700 LSP.</td>
</tr>
<tr>
<td>2. Record configuration information Page 232.</td>
<td>If you have not already done so, in the Record Configuration Information task, record all of the configuration information, regardless of the fact that you are not upgrading Communication Manager. You will re-enter some of this information after the conversion.</td>
</tr>
</tbody>
</table>
### Migrating a G350 Media Gateway to a G700 Media Gateway

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Installing the G700 Media Gateway hardware.</td>
<td>Unpack, check, and mount the G700 in a rack.</td>
</tr>
<tr>
<td><strong>Page 86.</strong></td>
<td></td>
</tr>
<tr>
<td>4. Shut down the S8300B in the G350.</td>
<td><strong>Note:</strong> The final disposition of the G350 Media Gateway is beyond the scope of this procedure.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Remove the S8300B Media Server.</td>
<td>Place in a safe, static-free place.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Insert the S8300B into the G700.</td>
<td><strong>CAUTION:</strong> In the G700, it is necessary to remove the LED Panel, and insert the S8300B and the LED Panel into the G700 simultaneously.</td>
</tr>
<tr>
<td><strong>Page 90.</strong></td>
<td></td>
</tr>
<tr>
<td>7. Insert media modules, as necessary.</td>
<td><strong>Note:</strong> The MM430 and MM342 Media Modules are compatible with the G350, but are not compatible with the G700.</td>
</tr>
<tr>
<td><strong>Page 92.</strong></td>
<td></td>
</tr>
<tr>
<td>8. Insert additional modules, if necessary.</td>
<td>● Insert an Expansion Module</td>
</tr>
<tr>
<td><strong>Page 95.</strong></td>
<td>● Insert an Avaya X330STK Stacking Module</td>
</tr>
<tr>
<td>9. Complete the hardware installation.</td>
<td>● Cable multiple units.</td>
</tr>
<tr>
<td><strong>Page 97.</strong></td>
<td>● Attach ground connectors.</td>
</tr>
<tr>
<td></td>
<td>● Connect AC power.</td>
</tr>
<tr>
<td></td>
<td>● Check and connect DC power.</td>
</tr>
<tr>
<td>Task</td>
<td>Steps/Comments</td>
</tr>
<tr>
<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>10. Administer the primary controller to which the G350 LSP was formerly assigned.</strong>&lt;br&gt;Start on page 157 if the primary controller was an S8300.&lt;br&gt;Start on page 163 if the primary controller was an S8700 or S8500.</td>
<td>● Remove G350 LSP node name.&lt;br&gt;● Dis-associate G350 LSP from network region.&lt;br&gt;● Remove G350 LSP from the LSP screen.</td>
</tr>
<tr>
<td><strong>11. Administer the G350 media gateway.</strong>&lt;br&gt;Starting on page 170.</td>
<td>● Remove G350 media gateway.&lt;br&gt;● Remove the media module types for each slot.&lt;br&gt;● Remove station and trunk translations for the G350.&lt;br&gt;Skip the subtasks, Verify Changes and Save Translations in this section.</td>
</tr>
<tr>
<td><strong>12. Administer the primary controller that the G700 LSP will use.</strong>&lt;br&gt;Start on page 157 if the primary controller is an S8300.&lt;br&gt;Start on page 163 if the primary controller is an S8700 or S8500.</td>
<td>● Assign node names.&lt;br&gt;● Administer network regions, including the IP network map.&lt;br&gt;● Associate G700 LSP with a network region.&lt;br&gt;● Administer LSP screen for the G700 LSP.&lt;br&gt;● Configure IP network map.</td>
</tr>
<tr>
<td><strong>13. Administer the G700 media gateway.</strong>&lt;br&gt;Starting on page 170.</td>
<td>● Add media gateway&lt;br&gt;● Add station and trunk translations for the G700.&lt;br&gt;For this scenario, the gateway will not automatically register with the primary controller at this point. Skip the subtasks Verify Changes and Save Translations in this section.&lt;br&gt;When the gateway finally registers, the media modules will automatically populate.</td>
</tr>
<tr>
<td>Task</td>
<td>Steps/Comments</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 14. Reassign endpoints to the new S8300/G700.                       | ● Update translations — add stations and trunks  
- Use the Avaya Installation Wizard and the Electronic Pre-Installation Worksheet (EPW).  
- Alternatively, use SAT commands.  
● Place test calls to verify.  
● Reassign IA770 users to the messaging system used by this primary controller. Enter test messages to verify.  
● Update the alternate controllers list for all endpoints (and gateways using this LSP for failover) to reflect the LSP on the new G700. |
| For information on updating translations, see the Administrator Guide for Avaya Communication Manager, 03-300509. |                                                                                                                                              |
| 15. Update the alternate controller list on the DHCP server.         | See page 175.                                                                                                                              |
| On the gateway’s MGP                                                |                                                                                                                                              |
| 16. Access the G700’s console port and set up the G700 IP addresses and the gateway’s controller list. | ● Assign IP addresses to the gateway components.  
● Enter the IP addresses of the primary controller and up to three alternate controllers.  
● Set the G700 LSP transition points.  
● Reset MGP |
| Start on page 533.                                                  |                                                                                                                                              |
| On the LSP’s primary controller                                      |                                                                                                                                              |
| 17. Verify that the media gateway has registered with the primary controller. | ● Open a SAT session and enter list media-gateway. Verify that the Registered field (Reg?) is set to y.  
● Place a test call.                                                                 |
<p>| On the LSP                                                          |                                                                                                                                              |
| 18. Set time, date, and time zone.                                  | The time of the LSP must be set to the same time zone as its primary controller, even if the LSP is physically located in a different time zone. |
| Page 259.                                                           |                                                                                                                                              |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Install post-conversion service pack file, if any.</td>
<td>Skip the Verify Media Server Configuration section starting on page 290.</td>
</tr>
<tr>
<td>Page 260.</td>
<td></td>
</tr>
<tr>
<td>20. Install the G700 LSP license file.</td>
<td></td>
</tr>
<tr>
<td>Starting on page 262.</td>
<td></td>
</tr>
<tr>
<td>21. Install the authentication file.</td>
<td></td>
</tr>
<tr>
<td>Starting on page 264.</td>
<td></td>
</tr>
<tr>
<td>22. Configure server.</td>
<td>● Fill in each Configure Server screen with data for the LSP.</td>
</tr>
<tr>
<td>Starting on page 464, ending on page 478.</td>
<td>● On the <strong>Configure Local Survivable Processor</strong> screen, select one of the three LSP choices depending on the primary controller type.</td>
</tr>
<tr>
<td>23. Reboot the LSP.</td>
<td>Open a SAT session and enter <code>reset system 4</code>. After the reboot, the LSP should be registered with the primary controller and in a few minutes translations should be synchronized.</td>
</tr>
<tr>
<td>24. Verify LSP translations date and time.</td>
<td>● To view the LSP’s translations date and time, enter <code>list configuration software</code>.</td>
</tr>
<tr>
<td>On the primary controller</td>
<td></td>
</tr>
<tr>
<td>25. Verify LSP status.</td>
<td>● At the SAT prompt, enter <code>display lsp</code>. The LSP name and IP address should be listed. The <strong>Service State?</strong> field should be <code>in-service/idle</code>.</td>
</tr>
<tr>
<td></td>
<td>● The Translations Updated should match the translations date and time on the primary controller. To view the primary controller’s translations date and time, enter <code>list configuration software</code>.</td>
</tr>
</tbody>
</table>
26. If the LSP’s translations have not synchronized with the primary controller, invoke translation synchronization.

- On the primary controller, enter the Linux command `filesync -a ipaddress` where `ipaddress` is the IP address of the LSP.
- Ensure that the translation synchronization completed successfully. Wait several minutes, then check the timestamp of the LSP translation files using the SAT command `display lsp` on the primary controller.

### Post-conversion tasks

27. Implement any additional design changes to voice and/or voice messaging networks.

28. Verify that the S8300B is an LSP associated with the new G700 gateway.

The S8300B should already be registered as an LSP, but verify its association with the new G700.
Conversions

Overview

This section contains modules describing conversion procedures for Linux-based systems. The following conversion paths are covered in this section:

- **Chapter 7: Converting PNs to IP Connect** on page 765
  - Converting some or all direct connect port networks to IP connect on page 771
  - Converting some or all CSS port networks to IP connect on page 803
  - Converting some or all ATM port networks to IP connect on page 837
- **Chapter 8: Converting the Media Server Mode** on page 867
  - Converting S8300 ICC mode to LSP mode on page 877
  - Converting S8300 LSP mode to ICC mode on page 869
  - The following mode conversions are described in *Avaya Enterprise Survivable Server (ESS) User Guide* (03-300428)
    - S8500 Main to ESS
    - S8500 MBS to ESS
    - S8700 MBS to ESS
    - S8700 Main to ESS
    - S8700 ESS to Main

What is not covered in the Conversions Section

This section does not cover changing from a DEFINITY communications system to an IP- or fiber-connected Linux-based system. For example, procedures to change a ProLogix, DEFINITY One, or IP600 system to an IP- or fiber-connected Linux-based system are not covered in this section. These are considered *migrations* and are covered in the *Migrations* section. In some cases you may need to do the change in two steps, using the procedures from both sections.
What is covered in the Conversions Section

The conversion procedures covered in this section are summarized in Table 14.

Table 14: Possible conversion paths

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Configuration Conversions</th>
<th>Mode Conversions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IP connect</td>
<td>S8300 mode</td>
<td>S8500/S87xx mode</td>
</tr>
<tr>
<td></td>
<td>All IP connect</td>
<td>Mixed Fiber and IP connect</td>
<td></td>
</tr>
<tr>
<td>S8500 and S87xx fiber connect</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>S8500 and S87xx mixed fiber and IP connect</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

1. Fiber connect configurations for the S8700 series media server include direct connect, CSS, and ATM. Fiber connect configurations for the S8500 media server include only direct connect.
Common conversion prerequisites

The following list of conversion prerequisites are common to all conversion modules. Prerequisites that are unique to a specific module are contained in the module.

---

**Pre-site checklist**

The following checklist itemizes the information and materials you must collect, and the tasks you must perform, before you can go to the customer site.

<table>
<thead>
<tr>
<th>✓ Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Verify that your Services laptop has the appropriate hardware. | Correct hardware components include:  
- 32 MB RAM  
- 40 MB available disk space  
- cross-over Ethernet cables  
- direct Ethernet cable  
- serial cable and adapter  
- RS-232 port connector  
- Network interface card (NIC) with a 10/100 BaseT Ethernet interface  
- 10/100 BaseT Ethernet, category 5 (or better) crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)  
- CD-ROM drive |
| Verify that your Services laptop has the appropriate software. | Correct software components include:  
- Windows 2000/XP operating system  
- Terminal emulation program: HyperTerminal or other  
- TCP/IP networking software: bundled with Windows OS  
- Web browser: Internet Explorer 5.0 or later |
| Verify that your networking settings are correct. | You must configure a network connection between your Services laptop and the server. See accessing the media server. |
| Verify that your web browser settings are correct | You may need to change your Services laptop browser settings to access the server remotely or directly. See Accessing the Media Server. |
| Obtain appropriate logins and passwords for all equipment and software. | For example, obtain logins and passwords for the following components:  
- Media Server  
- Media Gateway  
- IPSI  
- auxiliary equipment  
- Communication Manager  
These logins and passwords include the customer’s equipment. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that existing logins do not begin with a number or an asterisk (*).</td>
<td>Linux does not support logins that begin with a number or asterisk. Use Avaya Terminal Emulator or Avaya Site Administration to perform a <code>list logins</code> command.</td>
</tr>
<tr>
<td>Obtain the serial number of the Media Gateways and Media Servers, if necessary.</td>
<td>You need the serial number if you are using a new license file or if you are updating an existing license file.</td>
</tr>
<tr>
<td>Verify that you have the required, customer-provided network information. Obtain a filled out <em>Electronic Preinstallation Worksheet (EPW)</em></td>
<td>The EPW is an Excel spreadsheet providing the customer network information needed to use the Avaya Installation Wizard to configure the control network components. Get the EPW from the Avaya project manager, Avaya software technician, or customer network administrator. A blank EPW is available at the Avaya Installation Wizard web site (<a href="http://support.avaya.com/avayaicw/">http://support.avaya.com/avayaicw/</a>).</td>
</tr>
<tr>
<td>Verify that you have the current firmware files.</td>
<td>Firmware for the IPSIs, MedPro, C-LAN, and VAL circuit packs are on the software CD. Check the Avaya Support web site, <a href="http://avaya.com/support">http://avaya.com/support</a>, for the most current versions.</td>
</tr>
</tbody>
</table>
| Verify whether you need new license and authentication files. | You need to install a new or updated license file if:  
- You are changing the mode of the media server, including:  
  - S8300 LSP to ICC or ICC to LSP  
  - S8500 or S8700 Main to ESS or ESS to Main  
  - S8500 or S8700 MBS to ESS  
- You are installing TN2602AP Media Resource 320 boards. The license file specifies the maximum number of voice channels available.  
- You also need to install a new license and authentication file if you are adding new purchased features. |
| Verify that you have copied all necessary files to your Services laptop. | These files include:  
- converted translations files, if any  
- service pack files  
- new or updated license file  
- new authentication file  
- latest firmware for programmable circuit packs |
| (Directly connected Avaya technicians only) Obtain the static craft password for login to the media server. | Call the ASG Conversant number, 800-248-1234 or 720-444-5557 and follow the prompts to get the password. You will need the customer’s Product ID for the FL or IL number. |
| Run the Automatic Registration Tool (ART) for the INADS IP address, if necessary. | This step is necessary only if the configuration of the customer’s INADS alarming modem has changed. |
| Verify that you have the correct cabling to connect any new hardware. | New connections may include:  
- TN2312BP (IPSI) connection to the Ethernet switches  
- TN2302/TN2306 connection to the LAN |
License and authentication files

Use Remote Feature Activation (RFA) to obtain the Communication Manager license and Avaya authentication files. RFA is a Web-based application, available to Avaya employees and authorized BusinessPartners, that enables you to create and deploy license files for all Communication Manager product platforms. The RFA Web site is at http://rfa.avaya.com. For specific information on RFA and how to generate license and Avaya authentication files, go to the the RFA Information page available on the RFA Web site.

Note:
To access the RFA application, you must complete the RFA online training and have received access authorization.

To generate a license file, you need the following information:

- Your personal Single Sign-On (SSO) for the RFA Web site authentication login.
- SAP order number
- Required customer information
- For a new license, the serial number of one TN2312BP Internet Protocol Server Interface (IPSI) circuit pack designated the reference IPSI.
- For an updated license, the RFA system ID (SID) for the existing media server, which is necessary to locate the existing license.
- Internet access to the RFA Web page with Internet Explorer 5.0 or higher.

Before arriving on site, download the license and Avaya authentication files to the services laptop. The license and Avaya authentication files are installed during the installation process.

Once the Avaya authentication files are installed, Avaya services logins to the media server are protected by a challenge/response system called Access Security Gateway (ASG). The ASG challenge/response protocol confirms the validity of each user, reducing the opportunity for unauthorized access.

When finished installing the Avaya authentication file, Avaya Communication Manager has a password for the craft login. This password is unique to the customer’s server. You can use the
password the next time you log in as craft, provided you access the media server through the services port. You do not need an ASG challenge/response to log in this way, even though every other means of craft access still requires an ASG challenge/response. The revised password is recorded by RFA and is obtained from ASG Conversant at 1-800-248-1234 or 1-720-444-5557.

Additional documentation

Avaya recommends that you have the documents listed in Chapter 1: Introduction on page 27 on hand for the conversion. These documents are included on the documentation CD: Documentation for Avaya Communication Manager, Media Gateways and Servers (03-300151).
Chapter 7: Converting PNs to IP Connect

This chapter contains modules describing procedures to convert some or all port networks (PNs) in an Avaya communications system from fiber connect to IP connect. These conversion procedures assume that the communications system is controlled by S8500 or S8700 series media servers running release 3.0 or later of Communication Manager.

The following conversion modules are included in this chapter:

- Converting some or all direct connect port networks to IP connect on page 771
- Converting some or all CSS port networks to IP connect on page 803
- Converting some or all ATM port networks to IP connect on page 837

Important:

Any change to a communications network configuration should be accompanied by a traffic analysis. In particular, a traffic analysis should be done when changing from a fiber-connected configuration to a mixed fiber-connect and IP-connect configuration. In this case, inter-PN bearer traffic must be understood in order to determine the proper number of media processor resources as well as other network parameters such as the use of network regions, codecs, and VLANs. For more information on these issues, see Avaya Application Solutions: IP Telephony Deployment Guide (555-245-600) and Administration for Network Connectivity (555-233-504).

Overview

The modules in this chapter provide procedures for converting fiber-connected port networks (PNs) to IP-connected PNs in an S8500 or S8700 series communications system. Fiber-connected PNs transport bearer traffic (voice, fax, video) between PNs over fiber-optic cables using circuit-switched (TDM) protocol. IP-connected PNs transport bearer traffic over Ethernet cables using packet-switched Internet Protocol (IP).

Note:

The terms fiber connect or fiber-connected are used in this document with almost the same meaning as the term multi-connect, which, in addition to fiber-connected PNs to carry the bearer traffic, implies a dedicated control network. The term fiber connect applies to configuration with either a dedicated on non-dedicated control network.

This chapter includes modules for converting the following three fiber-connect configurations to full or partial IP-connect configurations:
Converting PNs to IP Connect

Direct connect - One PN, the "control PN," is IPSI-connected to the control network and one or two additional PNs are fiber-connected to the control PN. The call controller can be an S8500 media server or an S8700 series media server pair. The fiber connections are between the expansion interface (EI) circuit packs (TN570) in the PNs.

Center Stage Switch - All PNs are fiber-connected through the center-stage switch (CSS) and one or more PNs are IPSI-connected to the control network. The call controller is an S8700 series media server pair. The fiber connections are between the switch node interface (SNI) circuit packs (TN573) in the switch node carrier and the expansion interface (EI) circuit packs (TN570) in the PNs, or between SNIs in two switch-node carriers.

ATM - All PNs are fiber-connected through the Asynchronous Transfer Mode switch and one or more PNs are IPSI-connected to the control network. The call controller is an S8700 series media server pair. The fiber connections are between the ATM switch and the ATM expansion interface (ATM-EI) circuit packs (TN2305B or TN2306B) in the PNs.

The conversion procedures in this chapter should be viewed as applying to individual PNs in a communications system composed of one or more PNs. In the final converted system, the PNs may be either 100% IP connect or a mixture of fiber connect and IP connect.

Integrating IP-connected PNs with fiber-connect configurations

Starting with Communication Manager release 3.0, the system allows configurations that mix IP-connected port networks with existing fiber-connected CSSs, ATM networks, and direct-connected PNs. Both fiber-connected and IP-connected PNs may have either single or duplicated control networks. Only the fiber-connected PNs may have duplicated bearer networks.

A Communication Manager configuration can contain one of the following port network connectivity (PNC) combinations:

- IP-connect and direct-connect
- IP-connect and CSS
- IP-connect and ATM

Regardless of the combination of PNC methods, the maximum number of PNs allowed is 64. However, since a server can support IP-connect and fiber-connect PNs simultaneously, the following capacity rules apply to a configuration with both IP-connect and fiber-connected PNs:

- With CSS, 2 to 44 CSS PNs, with an additional 20 IP-connected PNs
- With ATM, 64 ATM and IP-connect PNs in any combination
- With direct-connect, 2 or 3 direct-connect PNs, with 61 or 62 IP-connected PNs
Note:
When converting to IP connect, the license file should set the Internet Protocol (IP) PNC? field on the Customer Options form to n. If it is set to y, you cannot have a mixture of fiber connect and IP connect PNs or use CMC1, SCC1, or MCC1 cabinets in the final configuration. If the final system is 100% IP connect, and if the configuration does not include CMC1, SCC1, or MCC1 cabinets, then this field can be set to either y or n, but n is recommended.

Media gateway combinations

The following table lists, by server, the media gateways and connection methods that may be simultaneously supported in a configuration with a mixture of IP-connect and fiber-connected PNs.

Gateways supported in IP-connect and fiber-connect configurations

<table>
<thead>
<tr>
<th>Server</th>
<th>Supported Central Gateways</th>
<th>IP-connect</th>
<th>Direct-connect</th>
<th>CSS/ATM-connect</th>
<th>Reliabilities supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8500</td>
<td>CMC1</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>single control network and single bearer network</td>
</tr>
<tr>
<td>G600</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>same as CMC1</td>
<td></td>
</tr>
<tr>
<td>G650</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>same as CMC1</td>
<td></td>
</tr>
<tr>
<td>SCC1</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>same as CMC1</td>
<td></td>
</tr>
<tr>
<td>MCC1</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>same as CMC1</td>
<td></td>
</tr>
<tr>
<td>S8700/</td>
<td>CMC1</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>single control network and single bearer network</td>
</tr>
<tr>
<td>S8710</td>
<td>G600</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>same as CMC1</td>
</tr>
<tr>
<td>G650</td>
<td>yes</td>
<td>yes</td>
<td>yes (requires an MCC1 for CSS)</td>
<td>- single control and bearer - duplicated control - duplicated control and bearer (on fiber-connected PNs only)</td>
<td></td>
</tr>
<tr>
<td>SCC1</td>
<td>yes</td>
<td>yes</td>
<td>yes (requires an MCC1 for CSS)</td>
<td>same as G650</td>
<td></td>
</tr>
<tr>
<td>MCC1</td>
<td>yes</td>
<td>yes</td>
<td>yes (requires an MCC1 for CSS)</td>
<td>same as G650</td>
<td></td>
</tr>
</tbody>
</table>
Converting PNs to IP Connect

**Note:**
The TN2602 Media Resource 320 circuit pack is not available for installation in the CMC1 or G600 media gateways.

---

**Reliability levels**

Avaya communications systems controlled by the S8500 media server have no duplication (sometimes referred to as *Simplex* reliability). Communications systems controlled by S8700 series media servers can have one or a combination of the following three duplication or reliability levels:

**Duplex** - Duplicated S8700 series media servers.

**High** - Duplicated media servers and control network.

**Critical** - Duplicated media servers, control network, and bearer network.

In a fiber-connected configuration, the reliability level is an attribute of the communications system as a whole. In an IP connect configuration, the reliability level is an attribute of individual IP-connected PNs. The converted communications system may include a mixture of fiber-connected PNs and IP-connected PNs. In a mixed system, the fiber-connected PNs have a single reliability level and each IP-connected PN has its own reliability level. Therefore, no single reliability level can be attributed to a mixed fiber connect and IP connect configuration.

Table 15 shows reliability options for the S8700 compared with a DEFINITY R system.

**Table 15: Reliability options for DEFINITY R and S8700**

<table>
<thead>
<tr>
<th>Reliability Options</th>
<th>DEFINITY Server R</th>
<th>S8700 Series Media Server</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td>One common control carrier per system. Single port network connectivity.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Duplex</strong></td>
<td>N/A</td>
<td>Two media servers Single control network One IPSI in each IPSI-connected PN Two online UPS Single bearer connectivity</td>
</tr>
</tbody>
</table>
Dedicated and non-dedicated control networks

Control networks A and B can be separately configured for dedicated and non-dedicated control networks. You can also use control network C, a new option available with Communication Manager release 3.0, while using control networks A and B for dedicated control networks. Control network C uses the customer LAN exclusively for the control signaling, while control networks A and B may use either dedicated Ethernet switch connections or the customer LAN for control signaling.

For more information about control networks and control network C, see Administration for Network Connectivity (555-233-204).
Converting some or all direct connect port networks to IP connect

Introduction

This module describes the procedures to convert a direct-connect configuration with fiber-connected port networks (PNs), controlled by an S8500 media server or a pair of S8700 series media server, to an IP-connect configuration.

This conversion changes the transmission of inter-PN bearer traffic from circuit-switched protocol over fiber connections to packet-switched IP over Ethernet connections.

⚠ Important:
These conversion procedures assume that the S8700 series media servers are running release 3.0 or later of Communication Manager. If not, the media servers must be upgraded to release 3.0 before starting the conversion procedure. To upgrade the media servers, see the appropriate upgrade module in this book.

These procedures assume that there is no change in cabinet hardware for the conversion. All MCC1, SCC1, and G650 cabinets in the starting multi-connect configuration are present in the converted IP connect configuration.

The starting configuration

The starting configuration consists of two or three fiber-connected PNs. All PNs are fiber-connected and one or more PNs are IPSI-connected to the control network.

For Communication Manager release 3.0 and later, the starting configuration may include some IP connect components as well as the fiber connect components. Each PN can be implemented in an MCC1, an SCC1 stack, or a G650 stack. The overall system can be any combination of MCC1, SCC1, or G650 gateways.

The reliability level of the starting configuration can be:

Simplex — no duplication (S8500 media servers only)

Duplex — duplicated media servers (S8700 series media servers only)

High — duplicated media servers and control network (S8700 series media servers only)

Critical — duplicated media servers, control network, and bearer network (S8700 series media servers only)
Converting some or all direct connect port networks to IP connect

However, since the final IP configuration cannot have bearer duplication for release 3.0, starting from Critical and converting down to High reliability is an unlikely scenario.

The converted configuration

The final converted configuration may be all IP-connect or mixture of IP-connect and fiber-connect. For systems controlled by the S8500 media server, only Simplex reliability (no duplication) is available.

For systems controlled by the S8700 series media server, the IP-connect components can have duplicated control networks (High reliability) but cannot have a duplicated bearer network (Critical reliability). The reliability level for the fiber-connected portion of the converted system can be Duplex, High, or Critical. The reliability level of the IP-connected portion of the converted system is per PN and can be either Duplex or High. That is, some IP-connect PNs can have duplicated control networks while other IP-connect PNs have non-duplicated control networks. Critical reliability (duplicated PNC) for IP-connected PNs will be available in a later release.

If synchronization is required for any of the IP-connected PNs, the synchronization source must be administered for each IP-connected PN separately.

⚠ Important:
Any change to a communications network configuration should be accompanied by a traffic analysis. In particular, when changing from a fiber-connected configuration to a mixed fiber connect and IP connect configuration, inter-PN bearer traffic must be understood to determine the proper number of media processor resources as well as other network parameters such as the use of network regions, codecs, and VLANs. For more information on these issues, see Avaya Application Solutions: IP Telephony Deployment Guide (555-245-600) and Administration for Network Connectivity (555-233-504).

Configuration Diagrams

Configuration Diagrams on page 794 shows example configurations to illustrate one of the many possible starting and converted configurations when converting a direct connect configuration from fiber-connect to IP-connect.

Figure 48: S8700-series direct-connect configuration with duplicated control network on page 795 and Figure 49: S8700-series IP-connect configuration with mixed reliability on page 797 show typical starting and converted configurations for the direct-connect conversion scenario. For the starting configuration shown in Figure 48: S8700-series direct-connect configuration with duplicated control network, the control network is duplicated and the bearer network is fiber-connected. For the converted configuration shown in Figure 49: S8700-series IP-connect configuration with mixed reliability, the PNs are all IP-connected with a duplicated control network.
Prerequisites

This section itemizes the information and materials you must have, and the tasks you must perform, before you can start the conversion procedure.

Pre-site assumptions

The conversion procedures in this chapter assume that:

- You have completed the pre-site checklist, “Pre-site checklist” on page 761, before going to the customer site.
- The Communication Manager software on S8700 series media servers has been updated to release 3.0 or later.

Accessing the media server

For additional information on accessing the media server, see Appendix A: Accessing the media server.

The first step to access the media server is to connect a crossover cable between the laptop’s ethernet port and the services port (labeled 2) on the back of the media server.

To open the Maintenance Web Interface:

1. Launch a Web browser.
2. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
3. Log in as craft or dadmin.
4. When asked Do you want to suppress alarms?, select yes.
5. Click Launch Maintenance Web Interface to get to the Main Menu.
To open a SAT session:

1. Click **Start > Run** to open the Run dialog box.
2. Enter `telnet 192.11.13.6`.
3. Log in as **craft** or **dadmin**.
4. Press **Enter** to accept the defaults for:
   - Suppress alarm origination? (y)
   - and Enter your terminal type (**vt100**)
5. Enter `sat`.
6. Log in as **craft** or **dadmin**.
7. Enter you terminal type (**w2ktt** for laptops running Windows).
8. Press **Enter** to accept the default (y) for Suppress alarm origination?
9. To close the SAT session enter **logoff** at the SAT command line and enter **y** to confirm.

---

**Pre-conversion tasks**

The following tasks must be completed before starting the conversion procedure. See [Accessing the media server](#) on page 773 for information on connecting your Services laptop to the media server and logging in to the Maintenance Web Interface or a SAT session.

**Copying files from the laptop to the media server**

If you have a new license file or firmware files that need to be installed as part of the conversion process, copy them to the media server using Download Files on the Maintenance Web Interface.

To copy files to the media server, complete the following steps:

1. On the Maintenance Web Interface, under **Miscellaneous**, select **Download Files**.
2. Select **File(s) to download from the machine I'm using to connect to the server**.
3. Click **Browse** next to the top field to open the **Choose File** window on your computer. Find the files that you need to copy to the media server.
4. Click **Download** to copy the file(s) to the media server.
   
   The files are automatically copied to the default file location.
**Prerequisites**

**Verifying Communication Manager release**

If the media servers are not running release 3.0 or later of Communication Manager, they must be upgraded before proceeding with the conversion procedure. Use the appropriate upgrade module in this book to do the upgrade.

On the Maintenance Web Interface, under Server click **Software Version** to see what software release is on the media server.

**Clearing alarms**

To clear alarms, complete the following steps:

1. On the Maintenance Web Interface, under Alarms and Notification, click **View Current Alarms**.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve any major alarms using SAT commands on a terminal emulation application.

**Checking for translation corruption**

The following steps check for translation corruption.

1. Open a SAT session.
2. Enter `newterm`.
3. Enter your terminal type (`w2ktt` for Windows operating systems).
4. If you see the following message:
   
   Warning: Translation corruption detected
   
   then do not continue with these procedures. Follow the normal escalation procedure for translation corruption before continuing the conversion.

**Disabling scheduled maintenance**

The following steps prevent scheduled daily maintenance from interfering with the conversion.

1. On the SAT, enter `change system-parameters maintenance`.
2. If scheduled maintenance is in progress, set the **Stop Time** field to 1 minute after the current time.

   or

   If scheduled maintenance is not in progress, set the **Start Time** field to a time after the conversion will be completed.
Converting some or all direct connect port networks to IP connect

For example, if you start the conversion at 8:00 P.M. and it takes 4 hours, set the Start Time field to 23:59.

Back up recovery system files

It is good practice to back up all the system files in case there is a need to back out of the conversion.

Note:

You can do the following task only on the active media server.

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets, including Avaya Call Processing (ACP) translations and Save ACP translations prior to backup, and the backup method. Do not select Full Backup because this option does not save translations.

Note:

If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade, migration, or conversion procedure.

3. Click Start Backup to begin the back up process. Wait until the backup completes.

Suppress alarming

⚠️ CAUTION:

If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click Start > Run to open the Run dialog box.
2. Type telnet 192.11.13.6 and press Enter.
3. Log in as craft or dadmin.
4. Type `almsuppress -t time` and press **Enter** to suppress both dial-out and SNMP alarms. The variable `time` is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

You see the following message

**Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.

---

**Major tasks checklist**

The following checklist identifies the major task in the conversion procedure:

- Install IPSI, media processor, and C-LAN circuit packs.
- Connect Ethernet cabling from the new circuit pack slots to the LAN.
- Administer new circuit packs.
- Upgrade firmware on new circuit packs.
- Disable duplication if the bearer network is duplicated.
- Remove fiber administration.
- If a portion of the final configuration remains fiber-connected with duplicated bearer network, enable duplication for the fiber connected segment.
- Remove fiber-related hardware (TN570, fiber cables).
- Administer PN synchronization.

---

**Conversion Tasks**

Before the conversion tasks are started, the S8700 series media servers must be upgraded to Communications Manager release 3.0 or later.

The following tasks are required to convert from a direct connect configuration to an IP Connect configuration.

⚠️ **Important:**

For additional detail on installing IPSI, media processor, and C-LAN circuit packs, see *Adding New Hardware — Avaya S8500 and S8700 Series Media Servers* (555-245-212).
Conversion tasks checklist

The following checklist identifies the major task in the conversion procedure:

- Changing direct-connect synchronization
- Adding new circuit packs
- Upgrading firmware on new circuit packs.
- Disabling PNC duplication.
- Removing fiber administration.
- Enabling PNC duplication.
- Removing fiber-related hardware.
- Administering PN synchronization.
- Post-conversion tasks

Changing direct connect synchronization, if necessary

If you are not converting the PN that contains the direct connect synchronization source, skip to Adding new circuit packs on page 780.

Note:
Administration of synchronization for a direct connect configuration is the same as for a CSS synchronization. For a direct connect configuration, the synchronization commands and screens use “CSS.”

Synchronization for a direct connect configuration is derived from a fiber-connected PN. If only one PN is being converted to IP Connect, it is strongly recommended that you do not convert the PN that contains the synchronization source.

⚠️ Important:
If you are converting the PN that contains the synchronization source, this PN should be converted last.
If you are converting the PN that contains the synchronization source, then complete the following steps to remove or change the synchronization source.

1. At the SAT, enter `change synchronization css`.

    
    ![Synchronization Plan Table](image)

    **Synchronization Plan**

    **Synchronization Source**: <circuit pack location>

    **Stratum**: 4

    **Primary**: 02B07  **Secondary**: 02A16

    **Circuit Packs Available for Synchronization**

    | Location | Type | Name   | Slip | Location | Type | Name   | Slip |
    |----------|------|--------|------|----------|------|--------|------|
    | 02A09    | DS1  | ST11>ST10mg3 | n    | 02A16    | DS1  | QSIG -> ST10 | n    |
    | 01C09    | DS1  | ST11>ST10mg1  | y    | 02B16    | DS1  | ST11->ST10   | des+ n|
    | 02B07    | DS1  | TGI4<->ST1W13  | n    | 02B17    | DS1  | udsi typ8    | n    |
    | 02E08    | DS1  | ST11>ST12 elo  | n    | 02A10    | DS1  | atm tn464 2a10 | n    |
    | 01D18    | DS1  | CNTY ST11 to ST12 | n | 01C18    | DS1  | ST11->ST10  | n    |
    | 01D16    | DS1  | DCS+ -> ST12   | n    | 01C19    | DS1  | ds1 to st12  | n    |
    | 01D20    | DS1  | QSIG -> ST12   | n    | 01D03    | DS1  | ppp des manta | n    |
    | 02A17    | DS1  | isdn-pri ST12  | n    | 02D17    | DS1  | T660 ST11 to ST10 | n    |

    **NOTE**: DS1 and BRI TRUNK sources result in stratum 4, type II synchronization.

2. Either remove or change the synchronization source:

   a. If all PNs are being converted to IP Connect, blank out the **Primary** and **Secondary** fields.

   b. Or, if you are converting only one of the direct connect PNs to IP Connect, and two PNs will remain fiber-connected, enter new circuit pack locations in the **Primary** and, optionally, the **Secondary** fields. These locations are taken from the list of "Circuit Packs Available for Synchronization" below the Primary and Secondary fields. If both primary and secondary synchronization sources are entered, these two locations must be from the same PN. Be sure to select working sync sources from a PN that is not being converted to IP Connect.

3. Submit the screen.

4. Check that the synchronization sources have been updated properly:

   a. If you are converting all PNs to IP connect and have blanked out the **Primary** and **Secondary** fields, enter `list synchronization` and ensure that the **Primary** and **Secondary** fields for CSS are blank. Then skip to Adding new circuit packs on page 780.

   b. Or, if some PNs will remain fiber-connected, complete the following:

      - Enter `list synchronization`.
Converting some or all direct connect port networks to IP connect

- On the Synchronization Plan screen, note the **Primary** and **Secondary** locations.
- Enter `status synchronization`.

---

- On the Synchronization Status screen, the Source Physical Location field for CSS should have the location listed as Primary on the Synchronization Plan screen. In this example, 02B07. If CSS is shown using the secondary sync source or tone-board as sync source then follow troubleshooting guide for sync sources.

---

**Adding new circuit packs**

This section describes procedures for installing, cabling, and administering new circuit packs.

**Note:**

For additional detail on installing circuit packs, see *Adding New Hardware — Avaya S8500 and S8700 Series Media Servers* (555-245-212).

Each IP-Connected port network must have a TN2312BP (IPSI) circuit pack and at least one, media processor circuit pack. These circuit packs must be added to each PN that doesn’t already have them. The media processor circuit packs can be either the TN2602AP IP Media Resource 320 or the TN2302AP IP Media Processor. The TN2602AP circuit pack is recommended for the media processors because it provides higher capacities and allows for future duplication of the bearer PNC.
Additional media processors may be installed in a PN to increase capacity but no more than two TN2602 circuit packs may be installed in a PN. The need for additional media processor circuit pack depends on system configuration parameters such as the number of IP endpoints.

**Note:**

Any additional media processor circuit pack cannot be used for PNC duplication in Communication Manager release 3.0.

Depending on the system configuration, additional C-LAN circuit packs (TN799DP) may also be needed. C-LAN circuit packs (TN799DP) are required if the system supports IP endpoints, H.248 gateways, or other IP adjuncts. The number of C-LANs needed depends on system parameters such as the number of IP endpoints and the desired level of availability.

**Important:**

If the final configuration is a mixture of fiber connect and IP connect PNs, at least one PN in the fiber connect portion of the system must have both an EI circuit pack (TN570) and a media processor circuit pack (TN2602AP, TN2302). This PN acts as the "gateway port network."

### Designating the slots for the new circuit packs

**Note:**

In older MCC1, SCC1, and G600 gateways, the backplane I/O cables may need to be replaced with the newer 100 mbps cable, provided in the I/O cable kit, comcode 700234032. For more information on replacing the backplane cables, see [Replacing the I/O cables](#) on page 798.

Designate the slot in which each new IPSI, media processor, and C-LAN circuit pack is to be installed. Each of these circuit packs requires an I/O adapter that is installed on the backplane connector associated with the slot in which the circuit pack is installed.

**Important:**

The adaptors for the three types of circuit packs are different and are not necessarily interchangeable. Also, the adapters for the two types of media processor circuit packs (TN2302AP and TN2602AP) are different. Be sure to use the correct adapter corresponding to each type of circuit pack.

The media processor and C-LAN circuit packs may be installed in any universal port slots. However, for SCC1 and MCC1 carriers, it is recommended that the media processors be placed in slots formerly occupied by the EI circuit packs; for example, slot A01.
Converting some or all direct connect port networks to IP connect

The IPSI circuit packs must be placed in the slots specified in the following table.

**IPSI slot locations**

<table>
<thead>
<tr>
<th>Carrier/Gateway</th>
<th>Slot Number</th>
<th>Slot Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>Secondary, if duplicated control (S8700 series only)</td>
</tr>
<tr>
<td>G650 stack</td>
<td>A01</td>
<td>B01</td>
</tr>
<tr>
<td>SCC1 EPN</td>
<td>A00</td>
<td>B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 1 PN</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 2 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td></td>
<td>- E02</td>
<td>D01</td>
</tr>
<tr>
<td>MCC1 EPN -- 3 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td></td>
<td>- B02</td>
<td>D01</td>
</tr>
<tr>
<td></td>
<td>- D02 (single control)</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td></td>
<td>- E02 (duplicated control)</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td>MCC1 EPN -- 4 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td></td>
<td>- B02</td>
<td>D01</td>
</tr>
<tr>
<td></td>
<td>- C02</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td></td>
<td>- D02 (single control)</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td></td>
<td>- E02 (duplicated control)</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td>MCC1 EPN -- 5 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td></td>
<td>- B02</td>
<td>D01</td>
</tr>
<tr>
<td></td>
<td>- C02</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td></td>
<td>- D02</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td></td>
<td>- E02</td>
<td>D01 (duplicated control)</td>
</tr>
</tbody>
</table>

**Installing the new circuit packs**

⚠️ Important:
In some cases, you may need to remove an existing circuit pack from a slot before installing the new one. These replacements should be done last, after you have installed, cabled, and administered all of the new circuit packs that go into empty slots. To remove existing circuit packs, follow the procedures in “Disabling PNC duplication, if necessary” on page 790 and “Removing fiber-related administration” on page 791.

⚠️ Tip:
The TN2312BP, TN2602AP, and TN799D circuit packs all support hot-plug-in; that is, they can be inserted into a live system without disrupting call processing.
IPSI installation

Add the IPSI TN2312BP circuit packs to the slots that you designated for the IPSIs.

To install an IPSI circuit pack:

1. Complete these steps to replace the TN2182 tone-clock circuit pack with an IPSI:

   ! CAUTION:
   
   The TN2312 IPSI must replace the TN2182 tone clock. Do not install the IPSI in addition to the tone clock. Major system disruptions can occur if a PN contains both circuit packs.

   ! Important:
   
   If the control network for this PN is duplicated, replace the standby tone-clock first.

   a. If the PN has duplicated control networks, and you have already replaced the standby tone-clock with an IPSI at location **UUC**, enter
   
      set tone-clock **UUC**, where **UUC** is the standby tone-clock location, to interchange the active and standby tone-clock locations.

   b. Enter the SAT command
   
      busyout tone-clock **UUC**, where **UUC** is the standby tone-clock location.

   c. Remove the standby TN2182 tone-clock.

2. Insert the IPSI circuit pack into the slot previously occupied by the tone clock.

3. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.

4. After about 1 minute, open the SAT Circuit Packs screen using
   
      display circuit-pack cabinetnumber and verify that the TN2312B circuit packs are shown in the appropriate slots.

5. If the IPSI has replaced a tone-clock, enter the SAT command
   
      enable tone-clock **y**, where **y** is the IPSI circuit pack location.

For the S8700 series media servers only, an additional IPSI may be included in the PN for control duplication.

Media processor installation

Add the media processor circuit packs to the slots that you designated for media processors.

To install a media processor circuit pack:

1. Insert the TN2602AP circuit pack into the slot that you previously prepared for the media processor.

2. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.

3. After about 1 minute, open the SAT Circuit Packs screen using
   
      display circuit-pack cabinetnumber and verify that the TN2602AP circuit packs are shown in the appropriate slots.
C-LAN installation

Add the C-LAN circuit packs to the slots that you designated for C-LANs.

To install a C-LAN circuit pack:

1. Insert the TN799DP circuit packs into the slot that you previously prepared for the C-LAN.
2. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.
3. On the SAT, open the Circuit Packs screen using 
   `display circuit-pack cabinetnumber` and verify that the TN799DP circuit packs 
   are shown in the appropriate slots.

Adding cabling for the new circuit packs

IPSI circuit packs are connected to an Ethernet switch in the control network. Media processor 
and C-LAN circuit packs are connected to the customer LAN.

⚠️ Important:

Each of the three types of circuit pack requires an I/O adapter connected to the 
backplane amphenol connector corresponding to the slot in which the circuit pack 
is installed. The adaptors for the three types of circuit pack are different and are 
not necessarily interchangeable. Also, the adapters for the two types of media 
processor circuit packs (TN2302AP and TN2602AP) are different. Be sure to use 
the correct adapter corresponding to each type of circuit pack.

IPSI cabling

To connect an IPSI slot to the control network:

1. Connect the TN2312BP I/O Adapter to the backplane amphenol connector corresponding 
to the slot in which the TN2312BP is installed.
2. Connect a CAT5 or better Ethernet cable to the RJ45 connector on the IPSI adapter.
3. Connect the other end of the CAT5 cable to the Ethernet switch.
4. For the G650 gateway only, if the maintenance function will be used, connect one end of the 
serial maintenance cable to the DB9 connector on the IPSI adapter. Connect the other end 
to the Emergency Transfer panel to provide 1 alarm output and 2 alarm inputs.

Media processor cabling

⚠️ Important:

If you are replacing a TN2302 with a TN2602, be sure to replace the TN2302 I/O 
adapter with a TN2602 adapter.

To connect a media processor slot to the LAN:

1. Connect the medial processor I/O adapter to the backplane amphenol connector 
corresponding to the slot in which the media processor circuit pack is installed.
2. Connect a CAT-5 or better Ethernet cable to the top RJ45 jack, labeled Port 1, on the media processor I/O Adapter.
3. Connect the other end of the CAT5 cable to an RJ45 jack on the customer LAN.

C-LAN cabling
The C-LAN circuit packs may be installed in any universal port slot.

To connect a C-LAN slot to the LAN:
1. Connect the TN799DP I/O Adapter to the backplane amphenol connector corresponding to the slot in which the TN799DP is installed.
2. Connect a CAT-5 or better Ethernet cable to the RJ45 jack on the TN799DP I/O Adapter.
3. Connect the other end of the CAT5 cable to an RJ45 jack on the customer LAN.

Administering the new circuit packs

⚠️ Important:
In addition to the administration procedures described in this section, adjustments to the network regions administration may be needed. Information about changes to network regions should be provided in your planning documents. See Administration for Network Connectivity, 555-233-504, for information on how to administer network regions.

💡 Tip:
To avoid losing new translations, save translations frequently during the administration process.

IPSI administration

To administer the TN2312BP circuit packs:

🔹 Note:
Steps 1 and 2 need to be completed just once for all IPSIs. The remaining steps must be repeated for each IPSI.

1. If any of the IPSIs in the configuration are duplicated, enter change system-parameters duplication to set Enable Operation of IPSI Duplication to y.

2. Enter change system-parameters ipserver-interface to set the Switch Identifier for the IPSIs on this system. This will normally be A. If not, enter the correct value (B – J) in the Switch Identifier field and submit the screen.

🔹 Note:
Repeat the following steps for each new IPSI.
Converting some or all direct connect port networks to IP connect

3. Enter `add ipserver-interface n`, where `n` is the PN number, to add a new IPSI.

Complete one of the following two steps for either DHCP addressing (typically used with dedicated control networks) or static addressing (typically used with non-dedicated control networks).

4. For **DHCP** addressing, complete these steps:

   **Note:**
   After you reseat the circuit pack, you must start the configuration operation within 5 seconds.

   a. Reseat the IPSI circuit pack to enable the recessed configuration button on the IPSI faceplate.
   
   b. Set the Switch ID and cabinet number by pressing the recessed button on the IPSI faceplate. When finished skip to the next task, setting the VLAN and diffserv parameters.

   **Tip:**
   See *Adding New Hardware — Avaya S8500 and S8700 Series Media Servers* (555-245-212) for details about these settings.

5. For **static** addressing instead of DHCP, complete these steps:

   a. Connect the services laptop to the Services port on the IPSI faceplate.
   
   b. Telnet to the IPSI using `telnet 192.11.13.6`.
   
   c. At the IPSI prompt, enter `ipsilogin` to log in to the IPSI IP Admin Utility.
   
   d. Log in using `craft` and the IPSI password
   
   e. Enter the static IP address and netmask using `set control interface ipaddr netmask`.
   
   f. Enter `quit` to save the changes and exit the IPSI session.
   
   g. Telnet to `192.11.13.6` and login.
   
   h. Enter `show control interface`.
   
   i. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr` where `gatewayaddr` is the customer-provided IP address for their gateway.
   
   j. Enter `quit` to save the changes and exit the IPSI session.
   
   k. Telnet to `192.11.13.6` and login.
   
   l. Use `show control interface` to verify the administration.
   
   m. Enter `quit` exit the IPSI session.

   If required, complete the following steps to set the VLAN and diffserv parameters:

   6. Log back in as `craft`. 

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7. Enter `show qos` to display the quality of service values.

8. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown:

   **Note:**
   Use `Help` to obtain syntax guidelines for these commands.
   
   - Enter `set vlan priority 6`
   - Enter `set diffserv 46`
   - Enter `set vlan tag on`
   - Enter `set port negotiation 1 disable`
   - Enter `set port duplex 1 full`
   - Enter `set port speed 1 100`

9. Enter `show qos` to check the administered values.

10. Enter `quit` to exit.

   **Important:**
   Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the `set port` commands.

Reset the IPSI and exit the IPSI IP Admin Utility.

11. Telnet to the IPSI and log in.

12. Enter `reset`.

   Enter `y` in response to the warning.

13. Disconnect the laptop from the IPSI.

14. Verify that the LED on the IPSI faceplate displays I P and a filled-in “V” at the bottom.

Repeat these steps for each of the other new IPSIs.

**Note:**
Clear the ARP cache on the laptop before connecting to another IPSI by entering `arp -d 192.11.13.6` at the Windows command prompt.

**Verify the IPSI translations**

After all of the IPSIs have been administered, verify IPSI translations and connectivity:

1. At the SAT, enter `list ipserver-interface` to view the interface information for all of the IPSIs.

   The State of Health - C P E G column should show `0.0.0.0` for each IPSI. If a "1" shows in any position, you must troubleshoot the problem.
Converting some or all direct connect port networks to IP connect

Tip:
The pattern 0.1.1.0 usually means there is a wrong cabinet type administered or a connectivity problem, such as an improperly terminated cable.

2. On the Maintenance Web Interface under Diagnostics, select **Ping**.
   a. Select **Other server(s), All IPSIs, UPS(s), Ethernet switches**.
   b. For all IPSIs, the **#Mess Sent** should equal **#Mess Recv**.

Media processor administration

To administer the TN2602AP IP Media Resource 320:

1. From the active media server, log on to a SAT session.
2. Verify that the TN2602AP is properly registered in the installed location using 
   **list configuration board UUCSS**.
3. Check the firmware version in the Vintage column. If the version is earlier than the latest version available on the Avaya Support web site, you need to upgrade the TN2602AP firmware.
4. Check the **Maximum TN2602AP VoIP Channels** field using 
   **display system-parameters customer-options**.
   The number
5. Open the IP Node Names screen using **change node-names ip** and enter the node names and IP addresses for the TN2602APs.
6. For each new TN2602AP circuit pack, open the IP Interfaces screen using 
   **add ip-interface UUCSS**.
   Fill in each field with the information for this TN2602AP.
   **Note:**
   The **Gateway Address** field may be left blank if you don’t have a gateway IP address.
7. Test connectivity to IP endpoints through each TN2602AP using 
   **ping ip-address ipaddress board UUCSS**
   where **ipaddress** is the IP address of an IP endpoint on the same subnet as the TN2602AP and **UUCSS** is the cabinet, carrier, and slot location of the TN2602AP.
8. Repeat the ping test for another IP endpoint on a different subnet.
9. Verify call processing using **status media-processor board UUCSS**.
C-LAN administration

To administer the TN799DP circuit pack:

1. From the active media server, log on to a SAT session.
2. Verify that the TN799DP is properly registered in the installed location using `list configuration board UUCSS`.
3. Check the firmware version in the Vintage column. If the version is earlier than the latest version available on the Avaya Support web site, you need to upgrade the TN799DP firmware.
4. Open the IP Node Names screen using `change node-names ip` and enter the node names and IP addresses for the TN799DPs.
5. For each new TN799DP circuit pack, open the IP Interfaces screen using `add ip-interface UUCSS`.
   Fill in each field with the information for this TN799DP.
   **Note:**
   The Gateway Address field may be left blank if you don't have a gateway IP address.
6. Open the Data Module screen using `add data-module next`.
   Enter ethernet in the Type field and fill in the rest of the screen.
7. Test connectivity to IP endpoints through each TN799DP using
   `ping ip-address ipadress board UUCSS`
   where `ipadress` is the IP address of an IP endpoint on the same subnet as the TN799DP and `UUCSS` is the cabinet, carrier, and slot location of the TN799DP.
8. Repeat the ping test for another IP endpoint on a different subnet.

---

Upgrading firmware on the new circuit packs

The IPSI, media processor, and C-LAN circuit packs that you have added must have the latest available firmware installed. Check the firmware version currently installed on each circuit pack and compare with the latest version available on the Avaya Support web site. If the circuit pack does not have the latest version installed, you must upgrade the firmware on that circuit pack. As part of the pre-site tasks, you should have the latest firmware on your laptop. If not, you must download the latest firmware files from the Avaya Support web site.
Converting some or all direct connect port networks to IP connect

Upgrading IPSI firmware, if necessary

Note:
For detailed procedures to upgrade the IPSI firmware, see Upgrading firmware on the IPSIs in the Upgrades section of this book.

To upgrade firmware on the IPSIs:
1. Open the Maintenance Web Interface.
2. Copy IPSI firmware using Download Files under Miscellaneous.
3. Determine which IPSIs you need to upgrade, using IPSI Version under IPSI Firmware Upgrades.
4. Download the new firmware to the IPSIs using Download IPSI Firmware.
5. Use Activate IPSI Upgrade to activate the new firmware.
6. When the IPSIs are recovered, use IPSI Version to verify the firmware versions.

Upgrading media processor and C-LAN firmware, if necessary

If you need to upgrade firmware on the TN2602AP or the TN799DP circuit packs, follow the instructions in "Chapter 4: Upgrading Firmware on TN Circuit Packs and Media Modules."

Disabling PNC duplication, if necessary

If the bearer network is duplicated, you must remove the duplication before removing the fiber-optic connections. If the system does not have PNC duplication, skip to “Removing fiber-related administration” on page 791.

To remove PNC duplication, open a SAT session and complete these steps:
1. Enter status pnc to check which of the duplicated PNCs is active.
2. If the B-PNC is active, enter reset pnc interchange to make the A-PNC active.
3. Enter busyout pnc-standby to busyout the standby PNC.
4. Enter change system-parameters duplication to open the duplication screen.
5. In the Enable Operation of PNC Duplication? field, enter n and submit the screen.
Removing fiber-related administration

Before the IP connections can be used, you must remove the fiber administration for each PN that is being converted to IP connect.

Complete the following steps at the SAT to busyout and remove the fiber links for each PN being converted to IP connect:

Tip:
To view the fiber link numbers and their endpoints, enter `list fiber-link`.

1. Enter `busyout fiber-link <n>`, where `<n>` is the link number for the fiber connection.
2. Enter `remove fiber-link <n>`
3. Repeat for each IP-connected PN.

Enabling PNC duplication, if necessary

If the final configuration is a mixture of fiber-connected and IP-connected PNs, and if the fiber connect portion is duplicated, then you must enable PNC duplication.

To enable PNC duplication at the SAT:

1. Enter `change system duplication` to open the PNC Duplication screen.
2. Enter `y` in the Enable Operation of PNC Duplication? field and submit the screen.

Removing fiber-related hardware

Complete these steps for each PN that is being converted to IP connect:

1. Remove fiber cables connecting the EI circuit packs in the PNs.
2. Remove the expansion interface (EI) circuit packs (TN570) from the port network cabinets/carriers/gateways.
3. At the SAT, enter `change circuit-pack`
   a. Blank out the EI (TN570) fields corresponding to PNs converted to IP connect.
   b. Submit the screen.
Converting some or all direct connect port networks to IP connect

Administering PN synchronization, if necessary

If the PN that has just been converted to IP connect requires a synchronization source, complete these steps to administer synchronization:

1. After the conversion, enter the SAT commands `list synchronization` and `status synchronization` to show the synchronization information for the IP-connected PNs. The Primary and Secondary fields on the Synchronization Plan screen and the Source Physical Location field on the Synchronization Status screen should be empty.

2. Enter `change synchronization port-network <n>`, where `<n>` is the PN number of the converted port network that requires synchronization.

   **Tip:**
   Enter `list cabinet` to see a list of all the cabinets and the PNs they contain.

   ```
   change synchronization port-network 3
   SYNCHRONIZATION PLAN
   SYNCHRONIZATION SOURCE <circuit pack location>
   Stratum: 4
   Primary: 03B03   Secondary: 03A09
   CIRCUIT PACKS AVAILABLE FOR SYNCHRONIZATION
   Location   Type  Name           Slip Location   Type  Name
   03B09      DS1   SI1->SI18mg5   n               Location   Type  Name
   03B03      DS1   SYNC test      n               Slip
   NOTE: DS1 and BRI TRUNK sources result in stratum 4, type II synchronization
   ```

3. Enter a synchronization source circuit pack location in the Primary field. This location is taken from the “Circuit Packs Available for Synchronization” list below the Primary and Secondary fields. Be sure to choose a working synchronization source.

   In the example, location 03B03 has been entered as the primary synchronization source for PN 3.

4. Optionally, add another synchronization source circuit pack location in the Secondary field selected from the “Circuit Packs Available for Synchronization” list.

5. Submit the screen.

6. Wait about 5 minutes for Communications Manager to update the synchronization plan. Then check the changes using the `list synchronization` and `status synchronization` commands.
7. If the **Switching Capability** field for this PN on the Synchronization Status screen is disabled, enter `enable synchronization-switch all`.

8. Enter `test synchronization port-network <n> long` to check for errors. All listed ports should show **PASS** in the **Results** field. If not, you must troubleshoot the synchronization error.

---

**Post-conversion tasks**

The following task must be completed after the conversion tasks.

**Connect to the active media server**

Connect a crossover cable between the laptop and the services port on the back of the active media server.

1. Telnet to **198.11.13.6** and login as **craft** or **dadmin**.

2. open a SAT session.

**Enable scheduled maintenance (active server)**

The following steps enable scheduled maintenance.

1. At the SAT, enter `change system-parameters maintenance`.

2. Ensure that the **Start Time** and **Stop Time** fields’ administration is the same as before the conversion.

**Check for translation corruption (active server)**

The following steps check for translation corruption.

1. At the SAT enter `newterm`.

2. Enter your terminal type (**w2ktt** for Windows operating systems).

3. If you see the following message:

   **Warning: Translation corruption detected**

   then follow the normal escalation procedure for translation corruption.
Resolve alarms

Launch the Maintenance Web Interface.

1. Under Alarms, click **Current Alarms** to examine the alarm log.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve new alarms since the conversion using SAT commands and the *Maintenance Commands Reference* and *Alarms Maintenance* books.

Back up files on the active media server

Launch the Maintenance Web Interface

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets and the backup method.

   If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.

3. Click **Start Backup** to begin the back up process.

Release alarm suppression

If you complete the conversion well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. At the SAT, enter `almsuppress -n`.
2. Log off.

Log off the administration applications

When you have completed all the administration, log off all the applications used.

Configuration Diagrams

*Figure 48: S8700-series direct-connect configuration with duplicated control network* on page 795 and *Figure 49: S8700-series IP-connect configuration with mixed reliability* on page 797 show before and after diagrams for the conversion of a direct connect system from a fiber-connect configuration to a mixed fiber-connect and IP-connect configuration.
Figure 48: S8700-series direct-connect configuration with duplicated control network

Figure notes: S8700-series direct-connect configuration with duplicated control network

1. S8700/S8710 Media Server
2. Ethernet Switch
3. Direct-connect PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack), consisting of at least two media gateways or carriers.
4. PN control gateway or carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
     NOTE: For the G650 Media Gateway, the BP version of the TN2312 is required in order to provide environmental maintenance.
   - Two TN570 EI circuit packs for bearer and control network connections to the other two PNs (if any).
5. Duplicated expansion control gateway or carrier, in the B position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to control network

6. PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, SCC1 Media Gateway stack [shown in figure]),
   consisting of at least two media gateways or carriers.

7. PN control gateway or carrier, which contains two TN570 EI circuit packs for bearer and control network connections to the
   other two PNs.
   
   **NOTE:** One TN2182 Tone Clock circuit pack must also be present per PN if the PN(s) consist of SCC1 or MCC1
   Media Gateways. One maintenance-only TN2312BP IPSI circuit pack must be present per PN if the PN(s) consist of
   G650 Media Gateways.

   The control gateway or carrier is always in the A position in the MCC1 or gateway stack.

8. IPSI-to-server control network connection via Ethernet switch

9. TN 570/570 fiber connections between PNs

10. Customer LAN

11. LAN connections of optional TN2302AP IP Media Interface or TN2602AP IP Media Resource 320 for IP-TDM voice
    processing, if any, and optional TN799DP C-LAN for control of IP endpoints
    
    **NOTE:** The number of TN2302AP, TN2602AP, and TN799DP circuit packs varies, depending on the number of IP
    endpoints, PNs, and adjunct systems. These circuit packs are optional for PNs in a direct-connect network and may
    be inserted into a port carrier (shown in figure), the PN control carrier, or the duplicated control carrier. However, the
    C-LAN circuit pack is required for downloads of firmware updates.

12. LAN connections of media servers for remote administration

13. Duplicated server links, including the link for translations transfer and the link for control data sharing
This all IP-connect configuration was converted from a direct-connect configuration. PN <11> is located remotely from the S8700-series media servers. Control networks are duplicated for PNs <3> but not for PN <11>.

Figure notes: S8700-series IP-connect configuration with mixed reliability

1. S8700/S8710 Media Server
2. Ethernet Switch
3. IP-connect PN with duplicated control network (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack), consisting of at least two media gateways or carriers.
Converting some or all direct connect port networks to IP connect

Replacing the I/O cables

On older MCC1, SCC1, and G600 media gateways (cabinets) you must replace the existing I/O cables (WP-90753, LI), which connect the backplane to the rear connector panel, with Twisted Pair I/O cables. Order the DEFINITY kit with Twisted Pair I/O cables under Comcode 700234032.

The existing I/O cables have straight, not twisted, wires. They may be mostly white with two red or multi-colored. If the cables have multi-colored, tightly twisted wires, no replacement is necessary.

⚠️ CAUTION:

Turn off power to the carrier or media gateway being serviced.

⚠️ CAUTION:

When adding or replacing any hardware and associated cables and adapters, be sure to ground yourself against electrostatic discharge (ESD) by wearing a grounded wrist strap.
To replace the existing I/O cables, perform the following steps:

1. If the customer has an MCC1 or SCC1 Media Gateway, move to step 2. If the customer has a G600 Media Gateway, perform the following step:

   You must remove the fan assembly to access the cables. Loosen the thumb screws on the fan assembly and pull it straight out as shown in G600 Media Gateway fan assembly removal on page 800. Leave the fan assembly off until all the wires are installed.

2. Note the orientation of the existing 10 cables. The existing I/O cables may be white and red or multicolored. They are not twisted.

3. Remove the existing I/O cables to be replaced from the backplane and the connector panel slots.

4. In their place install the Twisted Pair I/O cables onto the backplane, according to the proper orientation shown in Proper orientation for the Twisted Pair I/O cables on page 801. Observe the white outline printed on the backplane for the location of each connector.

5. When viewed from the "wiring" side of the twin connectors (that is, while plugging them into the backplane) and with the connectors oriented properly for plug-in, they should look like Proper orientation for the Twisted Pair I/O cables on page 801.

   The circled pin locations are “No-Connects”; that is, they have no wires in them. At the top there is an orange-black pair on the right and a violet-brown pair on the left.

   If you are replacing I/O cables for all slot positions, plug all cables into the backplane before matching each cable’s "D" connector to the carrier frame.

   The 50-position metal shell "D" connectors should be installed into the carrier frame with the longer side of the "D" connector (pins 1–25) toward the right when viewed from the rear of the media gateway.

6. Apply the 10/100 mbps label to the front of the carrier slot, over the slot label that corresponds to the slot where you installed the Twisted Pair I/O cable.

7. For the G600 Media Gateway, replace the fan unit if no other media gateways are to be installed. If you are adding more media gateways to the rack, leave the fan units off until all of the TDM cables are installed.
Converting some or all direct connect port networks to IP connect

Figure 7: G600 Media Gateway fan assembly removal
Figure 8: Proper orientation for the Twisted Pair I/O cables

Figure notes:

1. Top
2. No connects; no wires
3. Violet-brown
4. Orange-black
5. Bottom
Converting some or all direct connect port networks to IP connect
Converting some or all CSS port networks to IP connect

Introduction

This module describes the procedures to convert a center stage switch (CSS) configuration with fiber-connected port networks (PNs), controlled by S8700 series media servers, to an IP connect configuration.

This conversion changes the transmission of inter-PN bearer traffic from circuit-switched protocol over fiber connections to packet-switched IP over Ethernet connections.

⚠️ Important:

These conversion procedures assume that the S8700 series media servers are running release 3.0 or later of Communication Manager. If not, the media servers must be upgraded to release 3.0 before starting the conversion procedure. To upgrade the media servers, see the appropriate upgrade module in this book.

These procedures assume that there is no change in cabinet hardware for the conversion. All MCC1, SCC1, and G650 cabinets in the starting multi-connect configuration are present in the converted IP connect configuration.

Note that for CSS starting configurations, the switch node carrier cannot be used in the converted configuration unless it remains fiber-connected.

The starting configuration

The starting configuration consists of fiber-connected PNs using a CSS. All PNs are fiber-connected through the CSS and one or more PNs are IPSI-connected to the control network.

For Communication Manager release 3.0 and later, the starting configuration may include some IP connect components as well as the fiber connect components. Each PN can be implemented in an MCC1, an SCC1 stack, or a G650 stack. The overall system can be any combination of MCC1, SCC1, or G650 gateways.

The reliability level of the starting configuration can be:

- *Duplex* — duplicated media servers
- *High* — duplicated media servers and control network
- *Critical* — duplicated media servers, control network, and bearer network
Converting some or all CSS port networks to IP connect

However, since the final IP configuration cannot have bearer duplication for release 3.0, starting from Critical and converting down to High reliability is an unlikely scenario.

The converted configuration

The final converted configuration may be all IP connect or mixture of IP connect and fiber connect. The IP connect components can have duplicated control networks (High reliability) but cannot have a duplicated bearer network (Critical reliability). The reliability level for the fiber-connected portion of the converted system can be Duplex, High, or Critical. The reliability level of the IP-connected portion of the converted system is per PN and can be either Duplex or High. That is, some IP connect PNs can have duplicated control networks while other IP connect PNs have non-duplicated control networks. Critical reliability (duplicated PNC) for IP-connected PNs will be available in a later release.

If synchronization is required for any of the IP-connected PNs, the synchronization source must be administered for each IP-connected PN separately.

Important:
Any change to a communications network configuration should be accompanied by a traffic analysis. In particular, when changing from a fiber-connected configuration to a mixed fiber connect and IP connect configuration, inter-PN bearer traffic must be understood to determine the proper number of media processor resources as well as other network parameters such as the use of network regions, codecs, and VLANs. For more information on these issues, see *Avaya Application Solutions: IP Telephony Deployment Guide* (555-245-600) and *Administration for Network Connectivity* (555-233-504).

Configuration Diagrams

*Configuration Diagrams* on page 827 shows example configurations to illustrate one of the many possible starting and converted configurations when converting a CSS from fiber connect to IP connect.

For the starting configuration shown in *Figure 50: Fiber connect configuration for S8700-series Center Stage Switch with duplicated control networks* on page 828, the control network is duplicated and the bearer network is fiber-connected through a CSS. The converted configuration shown in *Figure 51: Mixed fiber connect and IP connect configuration for S8700-series with mixed reliability (converted from CSS configuration)* on page 830 is a mixture of fiber-connected and IP-connected PNs. Two of the PNs have been converted to IP connect and the remaining PNs are fiber-connected through the CSS. All of the PNs after conversion, except one (cabinet <19>), have duplicated control networks.
Prerequisites

This section itemizes the information and materials you must have, and the tasks you must perform, before you can start the conversion procedure.

Pre-site assumptions

The conversion procedures in this chapter assume that:

- You have completed the pre-site checklist, “Pre-site checklist” on page 761, before going to the customer site.
- The Communication Manager software on S8700 series media servers has been updated to release 3.0 or later.

Accessing the media server

For additional information on accessing the media server, see Appendix A: Accessing the media server.

The first step to access the media server is to connect a crossover cable between the laptop's ethernet port and the services port (labeled 2) on the back of the media server.

To open the Maintenance Web Interface:

1. Launch a Web browser.
2. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
3. Log in as craft or dadmin.
4. When asked Do you want to suppress alarms?, select yes.
5. Click Launch Maintenance Web Interface to get to the Main Menu.
Converting some or all CSS port networks to IP connect

To open a SAT session:
1. Click Start > Run to open the Run dialog box.
2. Enter `telnet 192.11.13.6`.
3. Log in as `craft` or `dadmin`.
4. Press Enter to accept the defaults for:
   - `Suppress alarm origination? (y)`
   - and Enter your terminal type (`vt100`)
5. Enter `sat`.
6. Log in as `craft` or `dadmin`.
7. Enter you terminal type (`w2ktt` for laptops running Windows).
8. Press Enter to accept the default (`y`) for `Suppress alarm origination`?
9. To close the SAT session enter `logoff` at the SAT command line and enter `y` to confirm.

Pre-conversion tasks

The following tasks must be completed before starting the conversion procedure. See
`Accessing the media server` on page 805 for information on connecting your Services laptop to
the media server and logging in to the Maintenance Web Interface or a SAT session.

Copying files from the laptop to the media server

If you have a new license file or firmware files that need to be installed as part of the conversion
process, copy them to the media server using Download Files on the Maintenance Web
Interface.

To copy files to the media server, complete the following steps:
1. On the Maintenance Web Interface, under Miscellaneous, select Download Files.
2. Select File(s) to download from the machine I’m using to connect to the server.
3. Click Browse next to the top field to open the Choose File window on your computer. Find
   the files that you need to copy to the media server.
4. Click Download to copy the file(s) to the media server.
   The files are automatically copied to the default file location.
Verifying Communication Manager release

If the S8700 series media servers are not running release 3.0 or later of Communication Manager, they must be upgraded before proceeding with the conversion procedure. Use the appropriate upgrade module in this book to do the upgrade.

On the Maintenance Web Interface, under Server click Software Version to see what software release is on the media server.

Clearing alarms

To clear alarms, complete the following steps:

2. Select the server alarms to be cleared and click Clear.
3. Resolve any major alarms using SAT commands on a terminal emulation application.

Checking for translation corruption

The following steps check for translation corruption.

1. Open a SAT session.
2. Enter newterm.
3. Enter your terminal type (w2ktt for Windows operating systems).
4. If you see the following message:
   Warning: Translation corruption detected
   then do not continue with these procedures. Follow the normal escalation procedure for translation corruption before continuing the conversion.

Disabling scheduled maintenance

The following steps prevent scheduled daily maintenance from interfering with the conversion.

1. On the SAT, enter change system-parameters maintenance.
2. If scheduled maintenance is in progress, set the Stop Time field to 1 minute after the current time.
   or
   If scheduled maintenance is not in progress, set the Start Time field to a time after the conversion will be completed.
   For example, if you start the conversion at 8:00 P.M. and it takes 4 hours, set the Start Time field to 23:59.
Converting some or all CSS port networks to IP connect

Back up recovery system files

It is good practice to back up all the system files in case there is a need to back out of the conversion.

**Note:**
You can do the following task only on the *active* media server.

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets, including *Avaya Call Processing (ACP) translations* and *Save ACP translations prior to backup*, and the backup method. Do *not* select **Full Backup** because this option does not save translations.

**Note:**
If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade, migration, or conversion procedure.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Suppress alarming

⚠️ **CAUTION:**
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -t time` and press **Enter** to suppress both dial-out and SNMP alarms. The variable **time** is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

   You see the following message

   **Alarm is suppressed. 120 minutes left.**

5. Log off and close the dialog box.
Conversion Tasks

Before the conversion tasks are started, the S8700 series media servers must be upgraded to Communications Manager release 3.0 or later.

The following tasks are required to convert from a CSS configuration to an IP Connect configuration.

⚠️ Important:
For additional detail on installing IPSI, media processor, and C-LAN circuit packs, see Adding New Hardware — Avaya S8500 and S8700 Series Media Servers (555-245-212).

Conversion tasks checklist

The following checklist identifies the major task in the conversion procedure:

- Changing CSS synchronization
- Adding new circuit packs
- Upgrading firmware on new circuit packs.
- Disabling PNC duplication.
- Removing fiber administration.
- Enabling PNC duplication.
- Removing fiber-related hardware.
- Refreshing the switch-node clock memory.
- Administering PN synchronization.
- Post-conversion tasks

Changing CSS synchronization, if necessary

If you are not converting the PN that contains the CSS synchronization source, skip to Adding new circuit packs on page 811.

Synchronization for the CSS is derived from a connection through a PN connected to one of the SNI circuit packs in the switch node carrier. If not all CSS port network are being converted to IP Connect, it is strongly recommended that you do not convert the PN that contains the CSS synchronization source.
Important:
If you are converting the PN that contains the CSS synchronization source, this PN should be converted last.

If you are converting the PN that contains the synchronization source for the CSS, then complete the following steps to remove or change the synchronization source for CSS.

1. At the SAT, enter `change synchronization css`.

2. Either remove or change the synchronization source:
   a. If all PNs in the CSS are being converted to IP Connect, blank out the Primary and Secondary fields.
   b. Or, if you are converting only some of the CSS PNs to IP Connect, and some PNs will remain connected through the CSS, enter new circuit pack locations in the Primary and, optionally, in the Secondary fields. These locations are taken from the list of "Circuit Packs Available for Synchronization" below the Primary and Secondary fields. These two locations must be from the same PN. Be sure to select working sync sources from a PN that is not being converted to IP Connect.

3. Submit the screen.

4. Check that the synchronization sources have been updated properly:
   a. If you are converting all PNs to IP connect and have blanked out the Primary and Secondary fields, enter `list synchronization` and ensure that the Primary and Secondary fields for CSS are blank. Then skip to Adding new circuit packs on page 811.
   b. Or, if some PNs will remain fiber-connected, complete the following:
      - Enter `list synchronization`.
- On the Synchronization Plan screen, note the Primary and Secondary location for CSS.

- Enter status synchronization.

### Synchronization Plan

<table>
<thead>
<tr>
<th>Location</th>
<th>Stratum</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS</td>
<td>4</td>
<td>02B20</td>
<td>02B19</td>
</tr>
<tr>
<td>PN 04</td>
<td>4</td>
<td>03C18</td>
<td>06B17</td>
</tr>
</tbody>
</table>

- On the Synchronization Status screen, the Source Physical Location field for CSS should have the location listed as Primary on the Synchronization Plan screen. In this example, 02B20. If the CSS is using secondary or tone-board as sync source then follow troubleshooting guide for sync sources.

## Adding new circuit packs

This section describes the procedures for cabling, installing, and administering the new circuit packs.

**Note:**
For additional detail on installing circuit packs, see *Adding New Hardware — Avaya S8500 and S8700 Series Media Servers* (555-245-212).
Converting some or all CSS port networks to IP connect

Each IP-Connected port network must have a TN2312BP (IPSI) circuit pack and at least one, media processor circuit pack. These circuit packs must be added to each PN that doesn’t already have them. The media processor circuit packs can be either the TN2602AP IP Media Resource 320 or the TN2302AP IP Media Processor. The TN2602AP circuit pack is recommended for the media processors because it provides higher capacities and allows for future duplication of the bearer PNC.

Additional media processors may be installed in a PN to increase capacity but no more than two TN2602 circuit packs may be installed in a PN. The need for additional media processor circuit pack depends on system configuration parameters such as the number of IP endpoints.

Note:
Any additional media processor circuit pack cannot be used for PNC duplication in Communication Manager release 3.0.

Depending on the system configuration, additional C-LAN circuit packs (TN799DP) may also be needed. C-LAN circuit packs (TN799DP) are required if the system supports IP endpoints, H.248 gateways, or other IP adjuncts. The number of C-LANs needed depends on system parameters such as the number of IP endpoints and the desired level of availability.

⚠️ Important:
If the final configuration is a mixture of fiber connect and IP connect PNs, at least one PN in the fiber connect portion of the system must have both an EI circuit pack (TN570) and a media processor circuit pack (TN2602AP, TN2302). This PN acts as the "gateway port network."

Designating the slots for the new circuit packs

Note:
In older MCC1, SCC1, and G600 gateways, the backplane I/O cables may need to be replaced with the newer 100 mbps cable, provided in the I/O cable kit, comcode 700234032. For more information on replacing the backplane cables, see Replacing the I/O cables on page 834.

Designate the slot in which each new IPSI, media processor, and C-LAN circuit pack is to be installed. Each of these circuit packs requires an I/O adapter that is installed on the backplane connector associated with the slot in which the circuit pack is installed.

⚠️ Important:
The adaptors for the three types of circuit packs are different and are not necessarily interchangeable. Also, the adapters for the two types of media processor circuit packs (TN2302AP and TN2602AP) are different. Be sure to use the correct adapter corresponding to each type of circuit pack.

The media processor and C-LAN circuit packs may be installed in any universal port slots. However, for SCC1 and MCC1 carriers, it is recommended that the media processors be placed in slots formerly occupied by the EI circuit packs; for example, slot A01.
The IPSI circuit packs must be placed in the slots specified in the following table.

### IPSI slot locations

<table>
<thead>
<tr>
<th>Carrier/Gateway</th>
<th>Slot Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>G650 stack</td>
<td>A01 B01</td>
</tr>
<tr>
<td>SCC1 EPN</td>
<td>A00 B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 1 PN</td>
<td>- Tone Clock slot (A00) B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 2 PNs</td>
<td>- Tone Clock slot (A00) E02 B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 3 PNs</td>
<td>- Tone Clock slot (A00) B02 D02 (single control) E02 (duplicated control) B01 D01</td>
</tr>
<tr>
<td>MCC1 EPN -- 4 PNs</td>
<td>- Tone Clock slot (A00) B02 C02 D02 (single control) E02 duplicated control) D01 (duplicated control)</td>
</tr>
<tr>
<td>MCC1 EPN -- 5 PNs</td>
<td>- Tone Clock slot (A00) B02 C02 D02 E02 Control duplication not supported with 5 PNs</td>
</tr>
</tbody>
</table>

### Installing the new circuit packs

**Important:**
In some cases, you may need to remove an existing circuit pack from a slot before installing the new one. These replacements should be done last, after you have installed, cabled, and administered all of the new circuit packs that go into empty slots. To remove existing circuit packs, follow the procedures in “Disabling PNC duplication, if necessary” on page 821 and “Removing fiber-related administration” on page 822.

**Tip:**
The TN2312BP, TN2602AP, and TN799D circuit packs all support *hot-plug-in*; that is, they can be inserted into a live system without disrupting call processing.
IPSIs installation

Add the IPSI TN2312BP circuit packs to the slots that you designated for the IPSIs.

To install an IPSI circuit pack:

1. Complete these steps to replace the TN2182 tone-clock circuit pack with an IPSI:

   **CAUTION:**
   The TN2312 IPSI must replace the TN2182 tone clock. Do not install the IPSI in addition to the tone clock. Major system disruptions can occur if a PN contains both circuit packs.

   **Important:**
   If the control network for this PN is duplicated, replace the standby tone-clock first.
   a. If the PN has duplicated control networks, and you have already replaced the standby tone-clock with an IPSI at location \( UUC \), enter `set tone-clock UUC`, where \( UUC \) is the standby tone-clock location, to interchange the active and standby tone-clock locations.
   b. Enter the SAT command `busout tone-clock UUC`, where \( UUC \) is the standby tone-clock location.
   c. Remove the standby TN2182 tone-clock.

2. Insert the IPSI circuit pack into the slot previously occupied by the tone clock.
3. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.
4. After about 1 minute, open the SAT Circuit Packs screen using `display circuit-pack cabinetnumber` and verify that the TN2312B circuit packs are shown in the appropriate slots.
5. If the IPSI has replaced a tone-clock, enter the SAT command `enable tone-clock y`, where \( y \) is the IPSI circuit pack location.

For the S8700 series media servers only, an additional IPSI may be included in the PN for control duplication.

Media processor installation

Add the media processor circuit packs to the slots that you designated for media processors.

To install a media processor circuit pack:

1. Insert the TN2602AP circuit pack into the slot that you previously prepared for the media processor.
2. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.
3. After about 1 minute, open the SAT Circuit Packs screen using `display circuit-pack cabinetnumber` and verify that the TN2602AP circuit packs are shown in the appropriate slots.
C-LAN installation

Add the C-LAN circuit packs to the slots that you designated for C-LANs.

To install a C-LAN circuit pack:

1. Insert the TN799DP circuit packs into the slot that you previously prepared for the C-LAN.
2. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.
3. On the SAT, open the Circuit Packs screen using `display circuit-pack cabinetnumber` and verify that the TN799DP circuit packs are shown in the appropriate slots.

Adding cabling for the new circuit packs

IPSI circuit packs are connected to an Ethernet switch in the control network. Media processor and C-LAN circuit packs are connected to the customer LAN.

⚠️ **Important:**

Each of the three types of circuit pack requires an I/O adapter connected to the backplane amphenol connector corresponding to the slot in which the circuit pack is installed. The adaptors for the three types of circuit pack are different and are not necessarily interchangeable. Also, the adapters for the two types of media processor circuit packs (TN2302AP and TN2602AP) are different. Be sure to use the correct adapter corresponding to each type of circuit pack.

IPSI cabling

To connect an IPSI slot to the control network:

1. Connect the TN2312BP I/O Adapter to the backplane amphenol connector corresponding to the slot in which the TN2312BP is installed.
2. Connect a CAT5 or better Ethernet cable to the RJ45 connector on the IPSI adapter.
3. Connect the other end of the CAT5 cable to the Ethernet switch.
4. For the G650 gateway only, if the maintenance function will be used, connect one end of the serial maintenance cable to the DB9 connector on the IPSI adapter. Connect the other end to the Emergency Transfer panel to provide 1 alarm output and 2 alarm inputs.

Media processor cabling

⚠️ **Important:**

If you are replacing a TN2302 with a TN2602, be sure to replace the TN2302 I/O adapter with a TN2602 adapter.
Converting some or all CSS port networks to IP connect

To connect a media processor slot to the LAN:

1. Connect the medial processor I/O adapter to the backplane amphenol connector corresponding to the slot in which the media processor circuit pack is installed.

2. Connect a CAT-5 or better Ethernet cable to the top RJ45 jack, labeled **Port 1**, on the media processor I/O Adapter.

3. Connect the other end of the CAT5 cable to an RJ45 jack on the customer LAN.

*C-LAN cabling*

The C-LAN circuit packs may be installed in any universal port slot.

To connect a C-LAN slot to the LAN:

1. Connect the TN799DP I/O Adapter to the backplane amphenol connector corresponding to the slot in which the TN799DP is installed.

2. Connect a CAT-5 or better Ethernet cable to the RJ45 jack on the TN799DP I/O Adapter.

3. Connect the other end of the CAT5 cable to an RJ45 jack on the customer LAN.

**Administering the new circuit packs**

⚠ **Important:**

In addition to the administration procedures described in this section, adjustments to the network regions administration may be needed. Information about changes to network regions should be provided in your planning documents. See *Administration for Network Connectivity*, 555-233-504, for information on how to administer network regions.

⚠ **Tip:**

To avoid losing new translations, save translations frequently during the administration process.

**IPSI administration**

To administer the TN2312BP circuit packs:

**Note:**

Steps 1 and 2 need to be completed just once for all IPSIs. The remaining steps must be repeated for each IPSI.

1. If any of the IPSIs in the configuration are duplicated, enter `change system-parameters duplication` to set **Enable Operation of IPSI Duplication** to y.
2. Enter `change system-parameters ipserver-interface` to set the **Switch Identifier** for the IPSIs on this system. This will normally be A. If not, enter the correct value (B – J) in the Switch Identifier field and submit the screen.

**Note:**
Repeat the following steps for each new IPSI.

3. Enter `add ipserver-interface n`, where *n* is the PN number, to add a new IPSI.

Complete one of the following two steps for either **DHCP addressing** (typically used with dedicated control networks) or **static addressing** (typically used with non-dedicated control networks).

4. For **DHCP** addressing, complete these steps:

   **Note:**
   After you reseat the circuit pack, you must start the configuration operation within 5 seconds.

   a. Reseat the IPSI circuit pack to enable the recessed configuration button on the IPSI faceplate.

   b. Set the Switch ID and cabinet number by pressing the recessed button on the IPSI faceplate. When finished skip to the next task, setting the VLAN and diffserv parameters.

   **Tip:**
   See *Adding New Hardware — Avaya S8500 and S8700 Series Media Servers* (555-245-212) for details about these settings.

5. For **static** addressing instead of DHCP, complete these steps:

   a. Connect the services laptop to the Services port on the IPSI faceplate.

   b. Telnet to the IPSI using `telnet 192.11.13.6`.

   c. At the IPSI prompt, enter `ipsilogin` to log in to the IPSI IP Admin Utility.

   d. Log in using `craft` and the IPSI password

   e. Enter the static IP address and netmask using `set control interface ipaddr netmask`.

   f. Enter `quit` to save the changes and exit the IPSI session.

   g. Telnet to 192.11.13.6 and login.

   h. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

   i. If a default gateway is used, enter the gateway IP address using `set control gateway gatewayaddr` where `gatewayaddr` is the customer-provided IP address for their gateway.

   j. Enter `quit` to save the changes and exit the IPSI session.
Converting some or all CSS port networks to IP connect

k. Telnet to 192.11.13.6 and login.

l. Use \texttt{show control interface} to verify the administration.

m. Enter \texttt{quit} exit the IPSI session.

If required, complete the following steps to set the VLAN and diffserv parameters:

6. Log back in as \texttt{craft}.

7. Enter \texttt{show qos} to display the quality of service values.

8. If necessary, use the following commands to set the VLAN and diffserv parameters to the recommended values shown:

\textbf{Note:}

Use \texttt{Help} to obtain syntax guidelines for these commands.

- Enter \texttt{set vlan priority 6}
- Enter \texttt{set diffserv 46}
- Enter \texttt{set vlan tag on}
- Enter \texttt{set port negotiation 1 disable}
- Enter \texttt{set port duplex 1 full}
- Enter \texttt{set port speed 1 100}

9. Enter \texttt{show qos} to check the administered values.

10. Enter \texttt{quit} to exit.

\textbf{Important:}

Ensure that the port settings on the Ethernet switches are set to the same values as shown above in the \texttt{set port} commands.

Reset the IPSI and exit the IPSI IP Admin Utility.

11. Telnet to the IPSI and log in.

12. Enter \texttt{reset}.

Enter \texttt{y} in response to the warning.

13. Disconnect the laptop from the IPSI.

14. Verify that the LED on the IPSI faceplate displays \texttt{IP} and a filled-in “\texttt{V}” at the bottom.

Repeat these steps for each of the other new IPSIs.

\textbf{Note:}

Clear the ARP cache on the laptop before connecting to another IPSI by entering \texttt{arp -d 192.11.13.6} at the Windows command prompt.
Verify the IPSI translations

After all of the IPSIs have been administered, verify IPSI translations and connectivity:

1. At the SAT, enter `list ipserver-interface` to view the interface information for all of the IPSIs.

   The State of Health - C P E G column should show 0.0.0.0 for each IPSI. If a "1" shows in any position, you must troubleshoot the problem.

   **Tip:**

   The pattern 0.1.1.0 usually means there is a wrong cabinet type administered or a connectivity problem, such as an improperly terminated cable.

2. On the Maintenance Web Interface under Diagnostics, select Ping.

   a. Select Other server(s), All IPSIs, UPS(s), Ethernet switches.

   b. For all IPSIs, the #Mess Sent should equal #Mess Recv.

Media processor administration

To administer the TN2602AP IP Media Resource 320:

1. From the active media server, log on to a SAT session.

2. Verify that the TN2602AP is properly registered in the installed location using `list configuration board UUCSS`.

3. Check the firmware version in the Vintage column. If the version is earlier than the latest version available on the Avaya Support web site, you need to upgrade the TN2602AP firmware.

4. Check the Maximum TN2602AP VoIP Channels field using `display system-parameters customer-options`.

   The number

5. Open the IP Node Names screen using `change node-names ip` and enter the node names and IP addresses for the TN2602APs.

6. For each new TN2602AP circuit pack, open the IP Interfaces screen using `add ip-interface UUCSS`.

   Fill in each field with the information for this TN2602AP.

   **Note:**

   The Gateway Address field may be left blank if you don't have a gateway IP address.

7. Test connectivity to IP endpoints through each TN2602AP using `ping ip-address ipaddress board UUCSS`

   where `ipaddress` is the IP address of an IP endpoint on the same subnet as the TN2602AP and `UUCSS` is the cabinet, carrier, and slot location of the TN2602AP.
8. Repeat the ping test for another IP endpoint on a different subnet.


**C-LAN administration**

To administer the TN799DP circuit pack:

1. From the active media server, log on to a SAT session.

2. Verify that the TN799DP is properly registered in the installed location using `list configuration board UUCSS`.

3. Check the firmware version in the Vintage column. If the version is earlier than the latest version available on the Avaya Support web site, you need to upgrade the TN799DP firmware.

4. Open the IP Node Names screen using `change node-names ip` and enter the node names and IP addresses for the TN799DPs.

5. For each new TN799DP circuit pack, open the IP Interfaces screen using `add ip-interface UUCSS`.

   Fill in each field with the information for this TN799DP.

   **Note:**
   
   The **Gateway Address** field may be left blank if you don’t have a gateway IP address.

6. Open the Data Module screen using `add data-module next`.

    Enter **ethernet** in the **Type** field and fill in the rest of the screen.

7. Test connectivity to IP endpoints through each TN799DP using `ping ip-address ipaddress board UUCSS`

    where **ipaddress** is the IP address of an IP endpoint on the same subnet as the TN799DP and **UUCSS** is the cabinet, carrier, and slot location of the TN799DP.

8. Repeat the ping test for another IP endpoint on a different subnet.

---

**Upgrading firmware on the new circuit packs**

The IPSI, media processor, and C-LAN circuit packs that you have added must have the latest available firmware installed. Check the firmware version currently installed on each circuit pack and compare with the latest version available on the Avaya Support web site. If the circuit pack does not have the latest version installed, you must upgrade the firmware on that circuit pack.

As part of the pre-site tasks, you should have the latest firmware on your laptop. If not, you must download the latest firmware files from the Avaya Support web site.
Upgrading IPSI firmware, if necessary

Note:
For detailed procedures to upgrade the IPSI firmware, see Upgrading firmware on the IPSIs in the Upgrades section of this book.

To upgrade firmware on the IPSIs:
1. Open the Maintenance Web Interface.
2. Copy IPSI firmware using Download Files under Miscellaneous.
3. Determine which IPSIs you need to upgrade, using IPSI Version under IPSI Firmware Upgrades.
4. Download the new firmware to the IPSIs using Download IPSI Firmware.
5. Use Activate IPSI Upgrade to activate the new firmware.
6. When the IPSIs are recovered, use IPSI Version to verify the firmware versions.

Upgrading media processor and C-LAN firmware, if necessary

If you need to upgrade firmware on the TN2602AP or the TN799DP circuit packs, follow the instructions in "Chapter 4: Upgrading Firmware on TN Circuit Packs and Media Modules."

Disabling PNC duplication, if necessary

If the bearer network is duplicated, you must remove the duplication before removing the fiber-optic connections. If the system does not have PNC duplication, skip to “Removing fiber-related administration” on page 822.

To remove PNC duplication, open a SAT session and complete these steps:
1. Enter status pnc to check which of the duplicated PNCs is active.
2. If the B-PNC is active, enter reset pnc interchange to make the A-PNC active.
3. Enter busyout pnc-standby to busyout the standby PNC.
4. Enter change system-parameters duplication to open the duplication screen.
5. In the Enable Operation of PNC Duplication? field, enter n and submit the screen.
Converting some or all CSS port networks to IP connect

Removing fiber-related administration

Before the IP connections can be used, you must remove the fiber administration for each PN that is being converted to IP connect.

Complete the following steps at the SAT to busyout and remove the fiber links for each PN being converted to IP connect:

Tip:

To view the fiber link numbers and their endpoints, enter list fiber-link.

1. Enter busyout fiber-link <n>, where <n> is the link number for the fiber connection.
2. Enter remove fiber-link <n>
3. Repeat for each IP-connected PN.

Enabling PNC duplication, if necessary

If the final configuration is a mixture of fiber-connected and IP-connected PNs, and if the fiber connect portion is duplicated, then you must enable PNC duplication.

To enable PNC duplication at the SAT:

1. Enter change system duplication to open the PNC Duplication screen.
2. Enter y in the Enable Operation of PNC Duplication? field and submit the screen.

Removing fiber-related hardware

Complete these steps for each PN that is being converted to IP connect:

1. Remove fiber cables connecting the SNC to the EI circuit packs in the PNs.
2. Remove the switch-node interface (SNI) circuit packs (TN573) from the switch node carrier.
3. Remove the expansion interface (EI) circuit packs (TN570) from the port network cabinets/carriers/gateways.
4. At the SAT, enter change circuit-pack
   a. Blank out the EI (TN570) and SNI (TN573) fields corresponding to PNs converted to IP connect.
   b. Submit the screen.
Refreshing the switch-node clock memory, if necessary

This procedure is necessary only if:

- some PNs in the CSS remain fiber-connected

and

- alarms have been generated for the removed SNI (TN573) circuit packs.

Skip to "Post-conversion tasks" on page 826 if all of the PNs in a CSS are being converted to IP connect or if no alarms are present for the removed SNI circuit packs.

If not all PNs in a CSS are being converted to IP connect, the switch-node clock (TN572) may retain memory of the removed switch-node interface (TN573) circuit packs. In this case, a major alarm, SNI-PEER, will be generated.

Add and remove TN573

To clear the SN clock memory and prevent the alarms, you can use the change circuit-packs command to add the TN573 back then remove it. Complete the following steps:

1. Add the TN573:
   a. At the SAT, enter `change circuit-pack <n>`, where `<n>` is the cabinet number of the removed SNI circuit pack.
   b. On the Circuit Packs screen, go to the carrier (E or D) and slot of the removed SNI (TN573) circuit pack and enter **TN573**.
   c. Submit the screen.

2. Remove the TN573 that was just added:
   a. Enter `change circuit-pack <n>`
   b. On the Circuit Packs screen, go to the carrier and slot of the TN573 just added and blank out the field.
   c. Submit the screen.

Reseat the switch-node clock, if alarms persist

This task is necessary only if the SNI-PEER alarms continue after completing the previous task, Add and remove TN573. In this task, the switch-node clock circuit pack is reseated to clear its memory.

If the alarms have been cleared and have not returned, skip to the next task, Administering PN synchronization, if necessary.
Converting some or all CSS port networks to IP connect

Complete the steps for **one** of the following three scenarios if some PNs in the CSS remain fiber-connected.

⚠️ **Tip:**

To view the switch-node status, enter `status switch-node`.

1. For one CSS with one SN clock:
   a. Enter `busyout board UUCSS`, where `UUCSS` is the location of the switch-node clock.
   b. Reseat the switch-node clock circuit pack (TN572).
   c. Enter `release board`.

2. For one CSS with duplicated SN clocks:
   a. Enter `busyout board UUCSS`, where `UUCSS` is the location of the standby switch-node clock.
   b. Reseat the standby switch-node clock circuit pack (TN572).
   c. Enter `release board`.
   d. Enter `set switch-node clock UUCSS`, where `UUCSS` is the location of the (currently) standby clock. The active and standby switch-node clocks are now interchanged.
   e. Enter `busyout board UUCSS`, where `UUCSS` is the location of the standby switch-node clock.
   f. Reseat the standby switch-node clock circuit pack.
   g. Enter `release board`.

3. For more than one CSS:
   a. Enter `busyout pnc-standby`.
   b. Enter `busyout board UUCSS`, where `UUCSS` is the location of the switch-node clock in the standby CSS.
   c. Reseat the standby switch-node clock circuit pack (TN572).
   d. Enter `release board`.
   e. Enter `release pnc-standby`.
   f. Enter `reset pnc interchange`.
   g. Repeat steps a through e.
Administering PN synchronization, if necessary

If the PN that has just been converted to IP connect requires a synchronization source, complete these steps to administer synchronization:

1. After the conversion, enter the SAT commands list synchronization and status synchronization to show the synchronization information for the IP-connected PNs. The Primary and Secondary fields on the Synchronization Plan screen and the Source Physical Location field on the Synchronization Status screen should be empty.

2. Enter \texttt{change synchronization port-network <n>}, where \texttt{<n>} is the PN number of the converted port network that requires synchronization.

\textbf{Tip:}

Enter \texttt{list cabinet} to see a list of all the cabinets and the PNs they contain.

3. Enter a synchronization source circuit pack location in the \textbf{Primary} field. This location is taken from the “Circuit Packs Available for Synchronization” list below the Primary and Secondary fields. Be sure to choose a working synchronization source.

In the example, location 06B17 has been entered as the primary synchronization source for PN 9.

4. Optionally, add another synchronization source circuit pack location in the \textbf{Secondary} field selected from the “Circuit Packs Available for Synchronization” list.

5. Submit the screen.

6. Wait about 5 minutes for Communications Manager to update the synchronization plan. Then check the changes using the \texttt{list synchronization} and \texttt{status synchronization} commands.
Converting some or all CSS port networks to IP connect

7. If the **Switching Capability** field for this PN on the Synchronization Status screen is disabled, enter `enable synchronization-switch all`.

8. Enter `test synchronization port-network <n> long` to check for errors. All listed ports should show **PASS** in the **Results** field. If not, you must troubleshoot the synchronization error.

---

**Post-conversion tasks**

The following task must be completed after the conversion tasks.

**Connect to the active media server**

Connect a crossover cable between the laptop and the services port on the back of the active media server.

1. Telnet to `198.11.13.6` and login as `craft` or `dadmin`.
2. open a SAT session.

**Enable scheduled maintenance (active server)**

The following steps enable scheduled maintenance.

1. At the SAT, enter `change system-parameters maintenance`.
2. Ensure that the **Start Time** and **Stop Time** fields’ administration is the same as before the conversion.

**Check for translation corruption (active server)**

The following steps check for translation corruption.

1. At the SAT enter `newterm`.
2. Enter your terminal type (**w2ktt** for Windows operating systems).
3. If you see the following message:

   Warning: Translation corruption detected
   
   then follow the normal escalation procedure for translation corruption.
Resolve alarms

Launch the Maintenance Web Interface.

1. Under Alarms, click **Current Alarms** to examine the alarm log.
2. Select the server alarms to be cleared and click **Clear**.
3. Resolve new alarms since the conversion using SAT commands and the *Maintenance Commands Reference* and *Alarms Maintenance* books.

Back up files on the active media server

Launch the Maintenance Web Interface

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets and the backup method.

   If you select **Save ACP translations prior to backup**, the media server automatically saves the translations to its hard drive before saving it to the backup media.
3. Click **Start Backup** to begin the back up process.

Release alarm suppression

If you complete the conversion well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. At the SAT, enter `almsuppress -n`.
2. Log off.

Log off the administration applications

When you have completed all the administration, log off all the applications used.

---

**Configuration Diagrams**

*Figure 50: Fiber connect configuration for S8700-series Center Stage Switch with duplicated control networks* on page 828 and *Figure 51: Mixed fiber connect and IP connect configuration for S8700-series with mixed reliability (converted from CSS configuration)* on page 830 show before and after diagrams for the conversion of a CSS system from a fiber connect configuration to a mixed fiber connect and IP connect configuration.

*Figure 52: Example of MCC1 Media Gateway with IP connect PNC and mixed reliability* on page 832 shows a typical MCC1 gateway converted to IP connect with three IP-connected PNs.
Converting some or all CSS port networks to IP connect

Figure 50: Fiber connect configuration for S8700-series Center Stage Switch with duplicated control networks

828  Upgrading, Migrating, and Converting Media Servers and Gateways
Figure notes: S8700-series CSS configuration with duplicated control networks

1. S8700/S8710 Media Server
2. Ethernet Switch
3. MCC1 Media Gateway (CSS and PN)
4. PN control carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   - A TN570 EI circuit pack for bearer and control network connections to the Switch Node Carrier (SNC).
5. Duplicated control carrier, in the B position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to duplicated control network.
6. SNC, in the E position, which contains:
   - Multiple TN573B SNI circuit packs for EI connections to PNs
7. Dedicated IPSI-to-server control network connection via Ethernet switch
8. IPSI-connected PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack, consisting of at least two media gateways or carriers).
9. PN control gateway or carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   - A TN570 EI circuit pack for bearer and control network connections to the SNC.
10. Duplicated control gateway, in the B position, which contains:
    - A TN2312AP/BP IPSI circuit pack for IP connection to server.
11. Fiber-connected PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, SCC1 Media Gateway stack [shown in figure]), consisting of at least two media gateways or carriers.
12. PN control gateway or carrier, in the A position which contains:
    - A TN570 EI circuit pack for bearer and control network connections to the SNI.
    - A TN2182 Tone Clock circuit pack must also be present per PN if the PN(s) consist of SCC1 or MCC1 Media Gateways. One maintenance-only TN2312BP IPSI circuit pack must be present per PN if the PN(s) consist of G650 Media Gateways.
13. TN 570/573B fiber connections between PNs and SNC
14. TN 573B/570 fiber connections between the SNC and the MCC1’s A carrier (if the MCC1 is a PN)
15. Customer LAN
16. LAN connections of optional TN2302AP IP Media Processor or TN2602AP IP Media Resource 320 for IP-TDM voice processing, if any, and optional TN799DP C-LAN for control of IP endpoints
   - A TN2302AP, TN2602AP, and TN799DP circuit packs varies, depending on the number of IP endpoints, PNs, and adjunct systems. These circuit packs are optional for PNs in a CSS-connected network and may be inserted into a port carrier (shown in figure), the PN control carrier, or the duplicated control carrier. However, the C-LAN circuit pack is required for downloads of firmware updates.
17. LAN connections of media servers for remote administration
18. Duplicated server links, including the link for translations transfer and the link for control data sharing
Converting some or all CSS port networks to IP connect

Figure 51: Mixed fiber connect and IP connect configuration for S8700-series with mixed reliability (converted from CSS configuration)
In this configuration, PNs <8> and <19> have been converted from fiber connect to IP connect. The other PNs remain fiber-connected through the center stage switch.

Figure notes: Mixed fiber connect and IP connect configuration for S8700-series with mixed reliability (converted from CSS configuration)

1. S8700/S8710 Media Server
2. Ethernet Switch
3. MCC1 Media Gateway (CSS and PN)
4. PN control carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   - A TN570 EI circuit pack for bearer and control network connections to the Switch Node Carrier (SNC).
5. Duplicated control carrier, in the B position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to duplicated control network.
6. SNC, in the E position, which contains:
   - Multiple TN573B SNI circuit packs for EI connections to PNs
7. Dedicated IPSI-to-server control network connection via Ethernet switch
8. IP-connected PN with duplicated control networks (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack, consisting of at least two media gateways or carriers).
9. PN control gateway or carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   
   **NOTE:** For the G650 Media Gateway, the BP version of the TN2312 is required in order to provide environmental maintenance.
10. Duplicated control gateway, in the B position, which contains:
    - A TN2312AP/BP IPSI circuit pack for IP connection to server.
11. Fiber-connected PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, SCC1 Media Gateway stack [shown in figure]), consisting of at least two media gateways or carriers.
12. PN control gateway or carrier, in the A position which contains:
    - A TN570 EI circuit pack for bearer and control network connections to the SNI.
    
    **NOTE:** One TN2182 Tone Clock circuit pack must also be present per PN if the PN(s) consist of SCC1 or MCC1 Media Gateways. One maintenance-only TN2312BP IPSI circuit pack must be present per PN if the PN(s) consist of G650 Media Gateways.
13. TN 570/573 fiber connections between PNs and SNC
14. TN 573B/570 fiber connections between the SNC and the MCC1’s A carrier (if the MCC1 is a PN)
15. Customer LAN
16. LAN connections of TN2302AP IP Media Processor or TN2602AP IP Media Resource 320 for voice processing, and optional TN799DP C-LAN for control of IP endpoints. The media processor circuit packs (TN2303AP and TN2602AP) are required for the IP connect PNs and optional for the fiber connect PNs.
   
   **NOTE:** The number of TN2302AP, TN2602AP, and TN799DP circuit packs varies, depending on the number of IP endpoints, PNs, and adjunct systems. These circuit packs may be inserted into a port carrier (shown in figure), the PN control carrier, or the duplicated control carrier. However, the C-LAN circuit pack is required for downloads of firmware updates.
17. LAN connections of media servers for remote administration
18. Duplicated server links, including the link for translations transfer and the link for control data sharing
19. IP-connected PN with a single control network (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack, consisting of at least two media gateways or carriers).
Converting some or all CSS port networks to IP connect

Figure 52: Example of MCC1 Media Gateway with IP connect PNC and mixed reliability

This diagram is an example of an MCC1 with three IP-connected port networks, one of which has a duplicated control network. The MCC1 is remote from the media servers, requiring a second set of Ethernet switches.

Figure notes: Example of MCC1 Media Gateway with IP connect PNC and mixed reliability

1. S8700/S8710 Media Server
2. Ethernet Switch
3. MCC1 Media Gateway
4. IP connect PN, with one expansion port carrier in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   - A TN2302AP IP Media Processor or TN2602AP IP Media Resource 320 for IP-TDM voice processing
   - An optional TN799DP C-LAN for control of IP endpoints

5. IP connect PN, with two carriers, which contains:
   - E-position control carrier
     - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   - D-position duplicated control carrier
     - A TN2312AP/BP IPSI circuit pack for IP connection to server.
     - A TN2302AP IP Media Processor or TN2602AP IP Media Resource 320 for IP-TDM voice processing
     - An optional TN799DP C-LAN for control of IP endpoints

6. IP connect PN, with two carriers, which contains:
   - C-position port carrier
     - A TN2302AP IP Media Processor or TN2602AP IP Media Resource 320 for IP-TDM voice processing
     - An optional TN799DP C-LAN for control of IP endpoints
   - B-position port carrier
     - A TN2312AP/BP IPSI circuit pack for IP connection to server.

7. IPSI-to-server control network connection via Ethernet switch

8. LAN connections of TN2302AP IP Media Processor or TN2602 IP Media Resource 320 for IP-TDM voice processing and optional TN799DP C-LAN for control of IP endpoints

   NOTE: The number of TN2302AP, TN2602AP, and TN799DP circuit packs varies, depending on the number of IP endpoints, port networks, and adjunct systems. These circuit packs may be inserted into a port carrier (shown in figure) or the PN control carrier.

9. Customer LAN

10. LAN connections of media servers for remote administration

11. Duplicated server links, including the fiber link for translations transfer and the DAL1 link for control data sharing
Replacing the I/O cables

On older MCC1, SCC1, and G600 media gateways (cabinets) you must replace the existing I/O cables (WP-90753, LI), which connect the backplane to the rear connector panel, with Twisted Pair I/O cables. Order the DEFINITY kit with Twisted Pair I/O cables under Comcode 700234032.

The existing I/O cables have straight, not twisted, wires. They may be mostly white with two red or multi-colored. If the cables have multi-colored, tightly twisted wires, no replacement is necessary.

⚠️ CAUTION:

Turn off power to the carrier or media gateway being serviced.

⚠️ CAUTION:

When adding or replacing any hardware and associated cables and adapters, be sure to ground yourself against electrostatic discharge (ESD) by wearing a grounded wrist strap.

To replace the existing I/O cables, perform the following steps:

1. If the customer has an MCC1 or SCC1 Media Gateway, move to step 2. If the customer has a G600 Media Gateway, perform the following step:

   You must remove the fan assembly to access the cables. Loosen the thumb screws on the fan assembly and pull it straight out as shown in G600 Media Gateway fan assembly removal on page 835. Leave the fan assembly off until all the wires are installed.

2. Note the orientation of the existing 10 cables. The existing I/O cables may be white and red or multicolored. They are not twisted.

3. Remove the existing I/O cables to be replaced from the backplane and the connector panel slots.

4. In their place install the Twisted Pair I/O cables onto the backplane, according to the proper orientation shown in Proper orientation for the Twisted Pair I/O cables on page 836. Observe the white outline printed on the backplane for the location of each connector.

5. When viewed from the "wiring" side of the twin connectors (that is, while plugging them into the backplane) and with the connectors oriented properly for plug-in, they should look like Proper orientation for the Twisted Pair I/O cables on page 836.

   The circled pin locations are “No-Connects”; that is, they have no wires in them. At the top there is an orange-black pair on the right and a violet-brown pair on the left.

   If you are replacing I/O cables for all slot positions, plug all cables into the backplane before matching each cable’s “D” connector to the carrier frame.
The 50-position metal shell "D" connectors should be installed into the carrier frame with the longer side of the "D" connector (pins 1–25) toward the right when viewed from the rear of the media gateway.

6. Apply the 10/100 mbps label to the front of the carrier slot, over the slot label that corresponds to the slot where you installed the Twisted Pair I/O cable.

7. For the G600 Media Gateway, replace the fan unit if no other media gateways are to be installed. If you are adding more media gateways to the rack, leave the fan units off until all of the TDM cables are installed.

Figure 9: G600 Media Gateway fan assembly removal
Figure 10: Proper orientation for the Twisted Pair I/O cables

Figure notes:

1. Top
2. No connects; no wires
3. Violet-brown
4. Orange-black
5. Bottom
Converting some or all ATM port networks to IP connect

Introduction

This module describes the procedures to convert an asynchronous transfer mode (ATM) configuration with fiber-connected port networks (PNs), controlled by S8700 series media servers, to an IP-Connect configuration.

This conversion changes the transmission of inter-PN bearer traffic from circuit-switched protocol over fiber connections to packet-switched IP over Ethernet connections.

⚠️ Important:

These conversion procedures assume that the S8700 series media servers are running release 3.0 or later of Communication Manager. If not, the media servers must be upgraded to release 3.0 before starting the conversion procedure. To upgrade the media servers, see the appropriate upgrade module in this book.

These procedures assume that there is no change in cabinet hardware for the conversion. All MCC1, SCC1, and G650 cabinets in the starting multi-connect configuration are present in the converted IP connect configuration.

The starting configuration

The starting configuration consists of fiber-connected PNs using an ATM switch. All PNs are fiber-connected through the ATM switch and one or more PNs are IPSI-connected to the control network.

For Communication Manager release 3.0 and later, the starting configuration may include some IP connect components as well as the fiber connect components. Each PN can be implemented in an MCC1, an SCC1 stack, or a G650 stack. The overall system can be any combination of MCC1, SCC1, or G650 gateways.

The reliability level of the starting configuration can be:

- **Duplex** — duplicated media servers
- **High** — duplicated media servers and control network
- **Critical** — duplicated media servers, control network, and bearer network

However, since the final IP configuration cannot have bearer duplication for release 3.0, starting from Critical and converting down to High reliability is an unlikely scenario.
Converting some or all ATM port networks to IP connect

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**The converted configuration**

The final converted configuration may be all IP connect or mixture of IP connect and fiber connect. The IP connect components can have duplicated control networks (High reliability) but cannot have a duplicated bearer network (Critical reliability). The reliability level for the fiber-connected portion of the converted system can be Duplex, High, or Critical. The reliability level of the IP-connected portion of the converted system is per PN and can be either Duplex or High. That is, some IP connect PNs can have duplicated control networks while other IP connect PNs have non-duplicated control networks. Critical reliability (duplicated PNC) for IP-connected PNs will be available in a later release.

If synchronization is required for any of the IP-connected PNs, the synchronization source must be administrated for each IP-connected PN separately.

⚠️ **Important:**

Any change to a communications network configuration should be accompanied by a traffic analysis. In particular, when changing from a fiber-connected configuration to a mixed fiber connect and IP connect configuration, inter-PN bearer traffic must be understood to determine the proper number of media processor resources as well as other network parameters such as the use of network regions, codecs, and VLANs. For more information on these issues, see *Avaya Application Solutions: IP Telephony Deployment Guide* (555-245-600) and *Administration for Network Connectivity* (555-233-504).

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**Configuration Diagrams**

*Configuration Diagrams* on page 859 shows an example configurations to illustrate a one of the many possible starting and converted configurations when converting from multi-connect to IP-connect.

For the starting configuration shown in *Figure 53: Fiber-connect configuration S8700-series ATM with duplicated control networks* on page 860, the control network is duplicated and the bearer network is fiber-connected via an ATM. In the converted configuration shown in *Figure 54: IP-connect configuration with duplicated control network (converted from ATM)* on page 862, the PNs are all IP-connected with duplicated control networks.

Variations on these configurations include mixed PNC and mixed reliability starting and converted configurations.
Prerequisites

This section itemizes the information and materials you must have, and the tasks you must perform, before you can start the conversion procedure.

Pre-site assumptions

The conversion procedures in this chapter assume that:

- You have completed the pre-site checklist, “Pre-site checklist” on page 761, before going to the customer site.
- The Communication Manager software on S8700 series media servers has been updated to release 3.0 or later.

Accessing the media server

For additional information on accessing the media server, see Appendix A: Accessing the media server.

The first step to access the media server is to connect a crossover cable between the laptop’s ethernet port and the services port (labeled 2) on the back of the media server.

To open the Maintenance Web Interface:

1. Launch a Web browser.
2. In the Address field, type 192.11.13.6 and press Enter to bring up the login Web page.
3. Log in as craft or dadmin.
4. When asked Do you want to suppress alarms?, select yes.
5. Click Launch Maintenance Web Interface to get to the Main Menu.

To open a SAT session:

1. Click Start > Run to open the Run dialog box.
2. Enter telnet 192.11.13.6.
3. Log in as craft or dadmin.
4. Press Enter to accept the defaults for:
   - Suppress alarm origination? (y)
   - and Enter your terminal type (vt100)
Converting some or all ATM port networks to IP connect

5. Enter sat.
6. Log in as craft or dadmin.
7. Enter your terminal type (w2ktt for laptops running Windows).
8. Press Enter to accept the default (y) for Suppress alarm origination?
9. To close the SAT session enter logoff at the SAT command line and enter y to confirm.

Pre-conversion tasks

The following tasks must be completed before starting the conversion procedure. See Accessing the media server on page 839 for information on connecting your Services laptop to the media server and logging in to the Maintenance Web Interface or a SAT session.

Copying files from the laptop to the media server

If you have a new license file or firmware files that need to be installed as part of the conversion process, copy them to the media server using Download Files on the Maintenance Web Interface.

To copy files to the media server, complete the following steps:
1. On the Maintenance Web Interface, under Miscellaneous, select Download Files.
2. Select File(s) to download from the machine I'm using to connect to the server.
3. Click Browse next to the top field to open the Choose File window on your computer. Find the files that you need to copy to the media server.
4. Click Download to copy the file(s) to the media server.

The files are automatically copied to the default file location.

Verifying Communication Manager release

If the S8700 series media servers are not running release 3.0 or later of Communication Manager, they must be upgraded before proceeding with the conversion procedure. Use the appropriate upgrade module in this book to do the upgrade.

On the Maintenance Web Interface, under Server click Software Version to see what software release is on the media server.
Clearing alarms

To clear alarms, complete the following steps:

2. Select the server alarms to be cleared and click Clear.
3. Resolve any major alarms using SAT commands on a terminal emulation application.

Checking for translation corruption

The following steps check for translation corruption.

1. Open a SAT session.
2. Enter newterm.
3. Enter your terminal type (w2ktt for Windows operating systems).
4. If you see the following message:
   Warning: Translation corruption detected
   then do not continue with these procedures. Follow the normal escalation procedure for translation corruption before continuing the conversion.

Disabling scheduled maintenance

The following steps prevent scheduled daily maintenance from interfering with the conversion.

1. On the SAT, enter change system-parameters maintenance.
2. If scheduled maintenance is in progress, set the Stop Time field to 1 minute after the current time.

   or

If scheduled maintenance is not in progress, set the Start Time field to a time after the conversion will be completed.

For example, if you start the conversion at 8:00 P.M. and it takes 4 hours, set the Start Time field to 23:59.
Back up recovery system files

It is good practice to back up all the system files in case there is a need to back out of the conversion.

**Note:**
You can do the following task only on the *active* media server.

The following steps back up the system configuration files.

1. Under Data Backup/Restore, click **Backup Now**.
2. Select the data sets, including **Avaya Call Processing (ACP) translations** and **Save ACP translations prior to backup**, and the backup method. Do *not* select **Full Backup** because this option does not save translations.

**Note:**
If backing up to a flashcard, Avaya recommends that you use a different flashcard from the one with the prior release translations. You may need these translations if you need to back out of the upgrade, migration, or conversion procedure.

3. Click **Start Backup** to begin the back up process. Wait until the backup completes.

Suppress alarming

**CAUTION:**
If you do not suppress alarming during the upgrade, the system can generate alarms, resulting in unnecessary trouble tickets.

The following steps suppress alarming.

1. Click **Start > Run** to open the **Run** dialog box.
2. Type `telnet 192.11.13.6` and press **Enter**.
3. Log in as **craft** or **dadmin**.
4. Type `almsuppress -t time` and press **Enter** to suppress both dial-out and SNMP alarms. The variable **time** is the length of time the alarms will be suppressed up to 120 minutes (2 hours).

You see the following message

**Alarm is suppressed. 120 minutes left.**

5. Logoff and close the dialog box.
Conversion Tasks

Before the conversion tasks are started, the S8700 series media servers must be upgraded to Communications Manager release 3.0 or later.

The following tasks are required to convert from an ATM configuration to an IP Connect configuration.

⚠️ Important:
For additional detail on installing IPSI, media processor, and C-LAN circuit packs, see Adding New Hardware — Avaya S8500 and S8700 Series Media Servers (555-245-212).

Conversion tasks checklist

The following checklist identifies the major task in the conversion procedure:

● Changing ATM synchronization
● Adding new circuit packs
● Upgrading firmware on new circuit packs.
● Disabling PNC duplication.
● Removing fiber administration.
● Enabling PNC duplication.
● Removing fiber-related hardware.
● Administering PN synchronization.
● Post-conversion tasks

Changing ATM synchronization, if necessary

If you are not converting the PN that contains the ATM synchronization source, skip to Adding new circuit packs on page 845.

Synchronization for the ATM is derived from a connection through an ATM-connected PN. If not all ATM port networks are being converted to IP Connect, it is strongly recommended that you do not convert the PN that contains the ATM synchronization source.

⚠️ Important:
If you are converting the PN that contains the ATM synchronization source, this PN should be converted last.
If you are converting the PN that contains the synchronization source, then complete the following steps to remove or change the synchronization source.

1. At the SAT, enter `change synchronization atm`.

2. Either remove or change the synchronization source:
   a. If all PNs are being converted to IP Connect, blank out the **Primary** and **Secondary** fields.
   b. Or, if you are converting only some of the PNs to IP Connect, and some PNs will remain connected through the ATM, enter new circuit pack locations in the **Primary** and, optionally, in the **Secondary** fields. These locations are taken from the list of "Circuit Packs Available for Synchronization" below the Primary and Secondary fields. These two locations must be from the same PN. Be sure to select working sync sources from a PN that is not being converted to IP Connect.

3. Submit the screen.

4. Check that the synchronization sources have been updated properly:
   a. If you are converting all PNs to IP connect and have blanked out the **Primary** and **Secondary** fields, enter `list synchronization` and ensure that the **Primary** and **Secondary** fields for ATM are blank. Then skip to Adding new circuit packs on page 845.
   b. Or, if some PNs will remain fiber-connected, complete the following:
      - Enter `list synchronization`.
      - On the Synchronization Plan screen, note the **Primary** and **Secondary** location for ATM.
      - Enter `status synchronization`.
      - On the Synchronization Status screen, the **Source Physical Location** field for ATM should have the location listed as Primary on the Synchronization Plan screen.
Adding new circuit packs

This section describes the procedures for cabling, installing, and administering the new circuit packs.

**Note:**
For additional detail on installing circuit packs, see *Adding New Hardware — Avaya S8500 and S8700 Series Media Servers* (555-245-212).

Each IP-Connected port network must have a TN2312BP (IPSI) circuit pack and at least one, media processor circuit pack. These circuit packs must be added to each PN that doesn’t already have them. The media processor circuit packs can be either the TN2602AP IP Media Resource 320 or the TN2302AP IP Media Processor. The TN2602AP circuit pack is recommended for the media processors because it provides higher capacities and allows for future duplication of the bearer PNC.

Additional media processors may be installed in a PN to increase capacity but no more than two TN2602 circuit packs may be installed in a PN. The need for additional media processor circuit pack depends on system configuration parameters such as the number of IP endpoints.

**Note:**
Any additional media processor circuit pack cannot be used for PNC duplication in Communication Manager release 3.0.

Depending on the system configuration, additional C-LAN circuit packs (TN799DP) may also be needed. C-LAN circuit packs (TN799DP) are required if the system supports IP endpoints, H.248 gateways, or other IP adjuncts. The number of C-LANs needed depends on system parameters such as the number of IP endpoints and the desired level of availability.

⚠️ **Important:**
If the final configuration is a mixture of fiber connect and IP connect PNs, at least one PN in the fiber connect portion of the system must have *both* an EI circuit pack (TN570) and a media processor circuit pack (TN2602AP, TN2302). This PN acts as the "gateway port network."

Designating the slots for the new circuit packs

**Note:**
In older MCC1, SCC1, and G600 gateways, the backplane I/O cables may need to be replaced with the newer 100 mbps cable, provided in the I/O cable kit, comcode 700234032. For more information on replacing the backplane cables, see [Replacing the I/O cables](#) on page 864.

Designate the slot in which each new IPSI, media processor, and C-LAN circuit pack is to be installed. Each of these circuit packs requires an I/O adapter that is installed on the backplane connector associated with the slot in which the circuit pack is installed.
Converting some or all ATM port networks to IP connect

⚠️ Important:
The adaptors for the three types of circuit packs are different and are not necessarily interchangeable. Also, the adapters for the two types of media processor circuit packs (TN2302AP and TN2602AP) are different. Be sure to use the correct adapter corresponding to each type of circuit pack.

The media processor and C-LAN circuit packs may be installed in any universal port slots. However, for SCC1 and MCC1 carriers, it is recommended that the media processors be placed in slots formerly occupied by the EI circuit packs; for example, slot A01.

The IPSI circuit packs must be placed in the slots specified in the following table.

### IPSI slot locations

<table>
<thead>
<tr>
<th>Carrier/Gateway</th>
<th>Slot Number</th>
<th>Secondary, if duplicated control (S8700 series only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G650 stack</td>
<td>A01</td>
<td>B01</td>
</tr>
<tr>
<td>SCC1 EPN</td>
<td>A00</td>
<td>B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 1 PN</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td>MCC1 EPN -- 2 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>B01</td>
</tr>
<tr>
<td></td>
<td>- E02</td>
<td></td>
</tr>
<tr>
<td>MCC1 EPN -- 3 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>Control duplication not supported with 3 PNs.</td>
</tr>
<tr>
<td></td>
<td>- B02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- D02 (single control)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- E02 (duplicated control)</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td>MCC1 EPN -- 4 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>Control duplication not supported with 4 PNs</td>
</tr>
<tr>
<td></td>
<td>- B02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- C02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- D02 (single control)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- E02 duplicated control</td>
<td>D01 (duplicated control)</td>
</tr>
<tr>
<td>MCC1 EPN -- 5 PNs</td>
<td>- Tone Clock slot (A00)</td>
<td>Control duplication not supported with 5 PNs</td>
</tr>
<tr>
<td></td>
<td>- B02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- C02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- D02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- E02</td>
<td></td>
</tr>
</tbody>
</table>
Installing the new circuit packs

⚠️ Important:
In some cases, you may need to remove an existing circuit pack from a slot before installing the new one. These replacements should be done last, after you have installed, cabled, and administered all of the new circuit packs that go into empty slots. To remove existing circuit packs, follow the procedures in “Disabling PNC duplication, if necessary” on page 854 and “Removing fiber-related administration” on page 855.

💡 Tip:
The TN2312BP, TN2602AP, and TN799D circuit packs all support hot-plug-in; that is, they can be inserted into a live system without disrupting call processing.

IPSI installation
Add the IPSI TN2312BP circuit packs to the slots that you designated for the IPSIs.

To install an IPSI circuit pack:
1. Complete these steps to replace the TN2182 tone-clock circuit pack with an IPSI:

⚠️ CAUTION:
The TN2312 IPSI must replace the TN2182 tone clock. Do not install the IPSI in addition to the tone clock. Major system disruptions can occur if a PN contains both circuit packs.

⚠️ Important:
If the control network for this PN is duplicated, replace the standby tone-clock first.

a. If the PN has duplicated control networks, and you have already replaced the standby tone-clock with an IPSI at location UUC, enter

```
set tone-clock UUC
```

where UUC is the standby tone-clock location, to interchange the active and standby tone-clock locations.

b. Enter the SAT command

```
busystop tone-clock UUC
```

where UUC is the standby tone-clock location.

c. Remove the standby TN2182 tone-clock.

2. Insert the IPSI circuit pack into the slot previously occupied by the tone clock.

3. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.

4. After about 1 minute, open the SAT Circuit Packs screen using

```
display circuit-pack cabinetnumber
```

and verify that the TN2312B circuit packs are shown in the appropriate slots.

5. If the IPSI has replaced a tone-clock, enter the SAT command

```
enable tone-clock y
```

where y is the IPSI circuit pack location.
Converting some or all ATM port networks to IP connect

For the S8700 series media servers only, an additional IPSI may be included in the PN for control duplication.

Media processor installation
Add the media processor circuit packs to the slots that you designated for media processors.
To install a media processor circuit pack:

1. Insert the TN2602AP circuit pack into the slot that you previously prepared for the media processor.
2. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.
3. After about 1 minute, open the SAT Circuit Packs screen using `display circuit-pack cabinetnumber` and verify that the TN2602AP circuit packs are shown in the appropriate slots.

C-LAN installation
Add the C-LAN circuit packs to the slots that you designated for C-LANs.
To install a C-LAN circuit pack:

1. Insert the TN799DP circuit packs into the slot that you previously prepared for the C-LAN.
2. Push firmly on the faceplate until the circuit pack is properly seated, then close the latch.
3. On the SAT, open the Circuit Packs screen using `display circuit-pack cabinetnumber` and verify that the TN799DP circuit packs are shown in the appropriate slots.

Adding cabling for the new circuit packs
IPSI circuit packs are connected to an Ethernet switch in the control network. Media processor and C-LAN circuit packs are connected to the customer LAN.

**Important:**
Each of the three types of circuit pack requires an I/O adapter connected to the backplane amphenol connector corresponding to the slot in which the circuit pack is installed. The adaptors for the three types of circuit pack are different and are not necessarily interchangeable. Also, the adapters for the two types of media processor circuit packs (TN2302AP and TN2602AP) are different. Be sure to use the correct adapter corresponding to each type of circuit pack.

IPSI cabling
To connect an IPSI slot to the control network:

1. Connect the TN2312BP I/O Adapter to the backplane amphenol connector corresponding to the slot in which the TN2312BP is installed.
2. Connect a CAT5 or better Ethernet cable to the RJ45 connector on the IPSI adapter.
3. Connect the other end of the CAT5 cable to the Ethernet switch.

4. For the G650 gateway only, if the maintenance function will be used, connect one end of the serial maintenance cable to the DB9 connector on the IPSI adapter. Connect the other end to the Emergency Transfer panel to provide 1 alarm output and 2 alarm inputs.

Media processor cabling

⚠️ Important:
If you are replacing a TN2302 with a TN2602, be sure to replace the TN2302 I/O adapter with a TN2602 adapter.

To connect a media processor slot to the LAN:

1. Connect the media processor I/O adapter to the backplane amphenol connector corresponding to the slot in which the media processor circuit pack is installed.

2. Connect a CAT-5 or better Ethernet cable to the top RJ45 jack, labeled Port 1, on the media processor I/O Adapter.

3. Connect the other end of the CAT5 cable to an RJ45 jack on the customer LAN.

C-LAN cabling

The C-LAN circuit packs may be installed in any universal port slot.

To connect a C-LAN slot to the LAN:

1. Connect the TN799DP I/O Adapter to the backplane amphenol connector corresponding to the slot in which the TN799DP is installed.

2. Connect a CAT-5 or better Ethernet cable to the RJ45 jack on the TN799DP I/O Adapter.

3. Connect the other end of the CAT5 cable to an RJ45 jack on the customer LAN.

Administering the new circuit packs

⚠️ Important:
In addition to the administration procedures described in this section, adjustments to the network regions administration may be needed. Information about changes to network regions should be provided in your planning documents. See Administration for Network Connectivity, 555-233-504, for information on how to administer network regions.

⚠️ Tip:
To avoid losing new translations, save translations frequently during the administration process.
IPSIs administration

To administer the TN2312BP circuit packs:

Note: Steps 1 and 2 need to be completed just once for all IPSIs. The remaining steps must be repeated for each IPSI.

1. If any of the IPSIs in the configuration are duplicated, enter
   change system-parameters duplication
   to set Enable Operation of IPSI Duplication to y.
2. Enter change system-parameters ipserver-interface
   to set the Switch Identifier for the IPSIs on this system. This will normally be A. If not, enter the correct value (B – J) in the Switch Identifier field and submit the screen.

   Note:
   Repeat the following steps for each new IPSI.

3. Enter add ipserver-interface n, where n is the PN number, to add a new IPSI.

Complete one of the following two steps for either DHCP addressing (typically used with dedicated control networks) or static addressing (typically used with non-dedicated control networks).

4. For DHCP addressing, complete these steps:

   Note:
   After you reseat the circuit pack, you must start the configuration operation within 5 seconds.
   a. Reseat the IPSI circuit pack to enable the recessed configuration button on the IPSI faceplate.
   b. Set the Switch ID and cabinet number by pressing the recessed button on the IPSI faceplate. When finished skip to the next task, setting the VLAN and diffserv parameters.

   Tip:
   See Adding New Hardware — Avaya S8500 and S8700 Series Media Servers (555-245-212) for details about these settings.

5. For static addressing instead of DHCP, complete these steps:
   a. Connect the services laptop to the Services port on the IPSI faceplate.
   b. Telnet to the IPSI using telnet 192.11.13.6.
   c. At the IPSI prompt, enter ipsilogin to log in to the IPSI IP Admin Utility.
   d. Log in using craft and the IPSI password
   e. Enter the static IP address and netmask using
      set control interface ipaddr netmask.
f. Enter `quit` to save the changes and exit the IPSI session.

g. Telnet to `192.11.13.6` and login.

h. Enter `show control interface`.
   The IP address, subnet mask, and default gateway information are displayed.
   Verify that the proper information was entered.

i. If a default gateway is used, enter the gateway IP address using
   `set control gateway gatewayaddr` where `gatewayaddr` is the
   customer-provided IP address for their gateway.

j. Enter `quit` to save the changes and exit the IPSI session.

k. Telnet to `192.11.13.6` and login.

l. Use `show control interface` to verify the administration.

m. Enter `quit` exit the IPSI session.

If required, complete the following steps to set the VLAN and diffserv parameters:

6. Log back in as `craft`.

7. Enter `show qos` to display the quality of service values.

8. If necessary, use the following commands to set the VLAN and diffserv parameters to the
   recommended values shown:

   **Note:**
   Use `Help` to obtain syntax guidelines for these commands.

   - Enter `set vlan priority 6`
   - Enter `set diffserv 46`
   - Enter `set vlan tag on`
   - Enter `set port negotiation 1 disable`
   - Enter `set port duplex 1 full`
   - Enter `set port speed 1 100`

9. Enter `show qos` to check the administered values.

10. Enter `quit` to exit.

**Important:**
    Ensure that the port settings on the Ethernet switches are set to the same values
    as shown above in the `set port` commands.

Reset the IPSI and exit the IPSI IP Admin Utility.

11. Telnet to the IPSI and log in.

12. Enter `reset`.
    Enter `y` in response to the warning.
13. Disconnect the laptop from the IPSI.
14. Verify that the LED on the IPSI faceplate displays IP and a filled-in “V” at the bottom.

Repeat these steps for each of the other new IPSIs.

Note:
Clear the ARP cache on the laptop before connecting to another IPSI by entering `arp -d 192.11.13.6` at the Windows command prompt.

Verify the IPSI translations

After all of the IPSIs have been administered, verify IPSI translations and connectivity:

1. At the SAT, enter `list ipserver-interface` to view the interface information for all of the IPSIs.

The State of Health - C P E G column should show 0.0.0.0 for each IPSI. If a "1" shows in any position, you must troubleshoot the problem.

Tip:
The pattern 0.1.1.0 usually means there is a wrong cabinet type administered or a connectivity problem, such as an improperly terminated cable.

2. On the Maintenance Web Interface under Diagnostics, select Ping.
   a. Select Other server(s), All IPSIs, UPS(s), Ethernet switches.
   b. For all IPSIs, the #Mess Sent should equal #Mess Recv.

Media processor administration

To administer the TN2602AP IP Media Resource 320:

1. From the active media server, log on to a SAT session.
2. Verify that the TN2602AP is properly registered in the installed location using `list configuration board UUCSS`.
3. Check the firmware version in the Vintage column. If the version is earlier than the latest version available on the Avaya Support web site, you need to upgrade the TN2602AP firmware.
4. Check the Maximum TN2602AP VoIP Channels field using `display system-parameters customer-options`.
5. Open the IP Node Names screen using `change node-names ip` and enter the node names and IP addresses for the TN2602APs.
6. For each new TN2602AP circuit pack, open the IP Interfaces screen using `add ip-interface UUCSS`.
   Fill in each field with the information for this TN2602AP.
Conversion Tasks

Note:
The Gateway Address field may be left blank if you don’t have a gateway IP address.

7. Test connectivity to IP endpoints through each TN2602AP using
   \texttt{ping ip-address ipaddress board UUCSS}
   where \textit{ipaddress} is the IP address of an IP endpoint on the same subnet as the
   TN2602AP and \textit{UUCSS} is the cabinet, carrier, and slot location of the TN2602AP.

8. Repeat the ping test for another IP endpoint on a different subnet.

9. Verify call processing using \texttt{status media-processor board UUCSS}.

C-LAN administration
To administer the TN799DP circuit pack:

1. From the active media server, log on to a SAT session.

2. Verify that the TN799DP is properly registered in the installed location using
   \texttt{list configuration board UUCSS}.

3. Check the firmware version in the Vintage column. If the version is earlier than the latest
   version available on the Avaya Support web site, you need to upgrade the TN799DP
   firmware.

4. Open the IP Node Names screen using \texttt{change node-names ip} and enter the node
   names and IP addresses for the TN799DPs.

5. For each new TN799DP circuit pack, open the IP Interfaces screen using
   \texttt{add ip-interface UUCSS}.
   Fill in each field with the information for this TN799DP.

Note:
The Gateway Address field may be left blank if you don’t have a gateway IP address.

6. Open the Data Module screen using \texttt{add data-module next}.
   Enter \texttt{ethernet} in the \texttt{Type} field and fill in the rest of the screen.

7. Test connectivity to IP endpoints through each TN799DP using
   \texttt{ping ip-address ipaddress board UUCSS}
   where \textit{ipaddress} is the IP address of an IP endpoint on the same subnet as the TN799DP
   and \textit{UUCSS} is the cabinet, carrier, and slot location of the TN799DP.

8. Repeat the ping test for another IP endpoint on a different subnet.
Converting some or all ATM port networks to IP connect

Upgrading firmware on the new circuit packs

The IPSI, media processor, and C-LAN circuit packs that you have added must have the latest available firmware installed. Check the firmware version currently installed on each circuit pack and compare with the latest version available on the Avaya Support web site. If the circuit pack does not have the latest version installed, you must upgrade the firmware on that circuit pack. As part of the pre-site tasks, you should have the latest firmware on your laptop. If not, you must download the latest firmware files from the Avaya Support web site.

Upgrading IPSI firmware, if necessary

Note:
For detailed procedures to upgrade the IPSI firmware, see Upgrading firmware on the IPSIs in the Upgrades section of this book.

To upgrade firmware on the IPSIs:
1. Open the Maintenance Web Interface.
2. Copy IPSI firmware using Download Files under Miscellaneous.
3. Determine which IPSIs you need to upgrade, using IPSI Version under IPSI Firmware Upgrades.
4. Download the new firmware to the IPSIs using Download IPSI Firmware.
5. Use Activate IPSI Upgrade to activate the new firmware.
6. When the IPSIs are recovered, use IPSI Version to verify the firmware versions.

Upgrading media processor and C-LAN firmware, if necessary

If you need to upgrade firmware on the TN2602AP or the TN799DP circuit packs, follow the instructions in "Chapter 4: Upgrading Firmware on TN Circuit Packs and Media Modules."

Disabling PNC duplication, if necessary

If the bearer network is duplicated, you must remove the duplication before removing the fiber-optic connections. If the system does not have PNC duplication, skip to “Removing fiber-related administration” on page 855.

To remove PNC duplication, open a SAT session and complete these steps:
1. Enter status pnc to check which of the duplicated PNCs is active.
2. If the B-PNC is active, enter reset pnc interchange to make the A-PNC active.
3. Enter busyout pnc-standby to busyout the standby PNC.
4. Enter `change system-parameters duplication` to open the duplication screen.
5. In the **Enable Operation of PNC Duplication?** field, enter `n` and submit the screen.

---

**Removing fiber-related administration**

Before the IP connections can be used, you must remove the fiber administration for each PN that is being converted to IP connect.

Complete the following steps at the SAT to busyout and remove the fiber links for each PN being converted to IP connect:

▶ Tip:

To view the fiber link numbers and their endpoints, enter `list fiber-link`.

1. Enter `busyout fiber-link <n>`, where `<n>` is the link number for the fiber connection.
2. Enter `remove fiber-link <n>`
3. Repeat for each IP-connected PN.

---

**Enabling PNC duplication, if necessary**

If the final configuration is a mixture of fiber-connected and IP-connected PNs, and if the fiber connect portion is duplicated, then you must enable PNC duplication.

To enable PNC duplication at the SAT:

1. Enter `change system duplication` to open the PNC Duplication screen.
2. Enter `y` in the **Enable Operation of PNC Duplication?** field and submit the screen.

---

**Removing fiber-related hardware**

To remove all hardware related to the fiber connections, complete these steps for each PN that is being converted to IP connect:

1. Remove fiber cables connecting the EI circuit packs (TN570) and the ATM-EI circuit packs (TN2305B or TN2306B) in the PNs.
2. Remove the DS1 cable connecting the ATM switch to the sync splitter, if present.
3. Remove the ATM-EI circuit packs (TN2305B or TN2306B) from the port network cabinets/carriers/gateways.
4. Remove the Tone Clock circuit packs (TN2182) from the port network cabinets/carriers/gateways.
Converting some or all ATM port networks to IP connect

5. At the SAT, enter `change circuit-pack`
   a. Blank out the EI fields (TN570) for the PNs that are being converted to IP connect.
   b. Blank out the ATM-EI fields (TN2305/6) for the PNs that are being converted to IP connect.
   c. Blank out the corresponding Tone Clock (TN2182) fields.
   d. Submit the screen.

6. If converting all PNs to IP connect, remove the ATM switch.

Administering PN synchronization, if necessary

If the PN that has just been converted to IP connect requires a synchronization source, complete these steps to administer synchronization:

1. After the conversion, enter the SAT commands `list synchronization` and `status synchronization` to show the synchronization information for the IP-connected PNs. The `Primary` and `Secondary` fields on the Synchronization Plan screen and the `Source Physical Location` field on the Synchronization Status screen should be empty.

2. Enter `change synchronization port-network <n>`, where `<n>` is the PN number of the converted port network that requires synchronization.
   
   **Tip:**
   Enter `list cabinet` to see a list of all the cabinets and the PNs they contain.
3. Enter a synchronization source circuit pack location in the **Primary** field. This location is taken from the “Circuit Packs Available for Synchronization” list below the Primary and Secondary fields. Be sure to choose a working synchronization source.

In the example, location 03B20 has been entered as the primary synchronization source for PN 9.

4. Optionally, add another synchronization source circuit pack location in the **Secondary** field selected from the “Circuit Packs Available for Synchronization” list.

5. Submit the screen.

6. Wait about 5 minutes for Communications Manager to update the synchronization plan. Then check the changes using the `list synchronization` and `status synchronization` commands.

7. If the **Switching Capability** field for this PN on the Synchronization Status screen is disabled, enter `enable synchronization-switch all`.

8. Enter `test synchronization port-network <n> long` to check for errors. All listed ports should show **PASS** in the **Results** field. If not, you must troubleshoot the synchronization error.

---

**Post-conversion tasks**

The following task must be completed after the conversion tasks.

**Connect to the active media server**

Connect a crossover cable between the laptop and the services port on the back of the active media server.

1. Telnet to **198.11.13.6** and login as **craft** or **dadmin**.
2. Open a SAT session.

**Enable scheduled maintenance (active server)**

The following steps enable scheduled maintenance.

1. At the SAT, enter `change system-parameters maintenance`.
2. Ensure that the **Start Time** and **Stop Time** fields’ administration is the same as before the conversion.
Converting some or all ATM port networks to IP connect

Check for translation corruption (active server)

The following steps check for translation corruption.

1. At the SAT enter `newterm`.
2. Enter your terminal type (`w2ktt` for Windows operating systems).
3. If you see the following message:
   
   `Warning: Translation corruption detected`

   then follow the normal escalation procedure for translation corruption.

Resolve alarms

Launch the Maintenance Web Interface.

1. Under Alarms, click Current Alarms to examine the alarm log.
2. Select the server alarms to be cleared and click Clear.
3. Resolve new alarms since the conversion using SAT commands and the Maintenance Commands Reference and Alarms Maintenance books.

Back up files on the active media server

Launch the Maintenance Web Interface

1. Under Data Backup/Restore, click Backup Now.
2. Select the data sets and the backup method.

   If you select Save ACP translations prior to backup, the media server automatically saves the translations to its hard drive before saving it to the backup media.

3. Click Start Backup to begin the back up process.

Release alarm suppression

If you complete the conversion well before the time set when you suppressed alarming, you may want to release alarm suppression manually rather than wait.

1. At the SAT, enter `almsuppress -n`.
2. Log off.

Log off the administration applications

When you have completed all the administration, log off all the applications used.
Figure 53: Fiber-connect configuration S8700-series ATM with duplicated control networks on page 860 and Figure 54: IP-connect configuration with duplicated control network (converted from ATM) on page 862 show before and after diagrams for the conversion of a ATM system from a fiber-connect configuration to a mixed fiber-connect and IP-connect configuration.
Converting some or all ATM port networks to IP connect

Figure 53: Fiber-connect configuration S8700-series ATM with duplicated control networks
Figure notes: S8700-series ATM configuration with duplicated control networks

1. S8700/S8710 Media Server
2. Ethernet Switch
3. IPSI-connected PN (G650 Media Gateway stack, MCC1 Media Gateway [shown in figure], or SCC1 Media Gateway stack), consisting of at least two media gateways or carriers.
4. PN control gateway or carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   - A TN2305B or TN2306B ATM-CES circuit pack for bearer and control network connections to the ATM switch.
5. Duplicated control carrier, in the B position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to duplicated control network
6. TN464GP DS-1 circuit pack, for clock synchronization with a network resource
7. ATM switch.
8. IPSI-to-server control network connection via Ethernet switch
9. IPSI-connected PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack).
10. PN control gateway or carrier, in the A position, which contains:
    - A TN2312AP/BP IPSI circuit pack for IP connection to server.
    - A TN2305B or TN2306B ATM-CES circuit pack for bearer and control network connections to the ATM switch.
11. Duplicated control gateway, in the B position, which contains:
    - A TN2312AP/BP IPSI circuit pack for IP connection to server.
12. Fiber-connected PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, SCC1 Media Gateway stack [shown in figure]).
13. PN control gateway or carrier, in the A position, which contains:
    - A TN2305B or TN2306B ATM-CES circuit pack for bearer and control network connections to the ATM switch.
    - One TN2182 Tone Clock circuit pack must also be present per PN if the PN(s) consist of SCC1 or MCC1 Media Gateways. One maintenance-only TN2312BP IPSI circuit pack must be present per PN if the PN(s) consist of G650 Media Gateways.
14. OC-3 connections to the ATM switch.
15. 401A/B sync splitter, attached to the back of the TN464GP DS1 circuit pack
17. Timing signal to ATM switch from sync splitter.
18. Fiber connections from TN2305B/TN2306B to ATM switch.
19. Customer LAN.
20. LAN connections of optional TN2302AP IP Media Interface or TN2602AP IP Media Resource 320 for IP-TDM voice processing, if any, and optional TN799DP C-LAN for control of IP endpoints. These circuit packs are optional for PNs in an ATM-connected network. However, the C-LAN circuit pack is required for downloads of firmware updates.
21. LAN connections of media servers for remote administration.
22. DS1 connection from sync splitter.
23. Duplicated server links, including the link for translations transfer and the link for control data sharing.
Converting some or all ATM port networks to IP connect

Figure 54: IP-connect configuration with duplicated control network (converted from ATM)

This IP-connect configuration was converted from an ATM configuration. Control network duplication was retained for all port networks.
Figure notes: IP-connect configuration with duplicated control networks (converted from ATM)

2. Ethernet Switch.
3. IPSI-connected PN (G650 Media Gateway stack, MCC1 Media Gateway [shown in figure], or SCC1 Media Gateway stack), consisting of at least two media gateways or carriers.
4. PN control gateway or carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
   **NOTE:** For the G650 Media Gateway, the BP version of the TN2312 is required in order to provide environmental maintenance.
5. Duplicated control carrier, in the B position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to duplicated control network.
7. IPSI-to-server control network connection via Ethernet switch
8. IP-connect PN (G650 Media Gateway stack [shown in figure], MCC1 Media Gateway, or SCC1 Media Gateway stack [shown in figure]).
9. PN control gateway or carrier, in the A position, which contains:
   - A TN2312AP/BP IPSI circuit pack for IP connection to server.
10. Duplicated control gateway, in the B position, which contains:
    - A TN2312AP/BP IPSI circuit pack for IP connection to server.
11. Customer LAN.
13. LAN connections of media servers for remote administration.
14. Duplicated server links, including the link for translations transfer and the link for control data sharing.
Replacing the I/O cables

On older MCC1, SCC1, and G600 media gateways (cabinets) you must replace the existing I/O cables (WP-90753, L1), which connect the backplane to the rear connector panel, with Twisted Pair I/O cables. Order the DEFINITY kit with Twisted Pair I/O cables under Comcode 700234032.

The existing I/O cables have straight, not twisted, wires. They may be mostly white with two red or multi-colored. If the cables have multi-colored, tightly twisted wires, no replacement is necessary.

⚠️ CAUTION:
Turn off power to the carrier or media gateway being serviced.

⚠️ CAUTION:
When adding or replacing any hardware and associated cables and adapters, be sure to ground yourself against electrostatic discharge (ESD) by wearing a grounded wrist strap.

To replace the existing I/O cables, perform the following steps:

1. If the customer has an MCC1 or SCC1 Media Gateway, move to step 2. If the customer has a G600 Media Gateway, perform the following step:
   You must remove the fan assembly to access the cables. Loosen the thumb screws on the fan assembly and pull it straight out as shown in G600 Media Gateway fan assembly removal on page 865. Leave the fan assembly off until all the wires are installed.

2. Note the orientation of the existing 10 cables. The existing I/O cables may be white and red or multicolored. They are not twisted.

3. Remove the existing I/O cables to be replaced from the backplane and the connector panel slots.

4. In their place install the Twisted Pair I/O cables onto the backplane, according to the proper orientation shown in Proper orientation for the Twisted Pair I/O cables on page 866. Observe the white outline printed on the backplane for the location of each connector.

5. When viewed from the "wiring" side of the twin connectors (that is, while plugging them into the backplane) and with the connectors oriented properly for plug-in, they should look like Proper orientation for the Twisted Pair I/O cables on page 866.

   The circled pin locations are “No-Connects”; that is, they have no wires in them. At the top there is an orange-black pair on the right and a violet-brown pair on the left.

   If you are replacing I/O cables for all slot positions, plug all cables into the backplane before matching each cable’s “D” connector to the carrier frame.
Replacing the I/O cables

The 50-position metal shell "D" connectors should be installed into the carrier frame with the longer side of the "D" connector (pins 1–25) toward the right when viewed from the rear of the media gateway.

6. Apply the 10/100 mbps label to the front of the carrier slot, over the slot label that corresponds to the slot where you installed the Twisted Pair I/O cable.

7. For the G600 Media Gateway, replace the fan unit if no other media gateways are to be installed. If you are adding more media gateways to the rack, leave the fan units off until all of the TDM cables are installed.

Figure 11: G600 Media Gateway fan assembly removal
Figure 12: Proper orientation for the Twisted Pair I/O cables

Figure notes:
1. Top
2. No connects; no wires
3. Violet-brown
4. Orange-black
5. Bottom
Chapter 8: Converting the Media Server Mode

This chapter contains the following two modules describing procedures to change the mode of a media server.

Converting S8300 ICC mode to LSP mode on page 877
Converting S8300 LSP mode to ICC mode on page 869

These modules provide high-level checklists for the conversion tasks. Detailed task descriptions are given in

- *Administrator Guide for Avaya Communication Manager*, 03-300509.

The following mode conversions are described in *Avaya Enterprise Survivable Server (ESS) User Guide* (03-300428)

- S8500 Main to ESS
- S8500 MBS to ESS
- S8700 Main to ESS
- S8700 ESS to Main
- S8700 MBS to ESS
Converting the Media Server Mode
Converting S8300 LSP mode to ICC mode

Introduction

This module provides a high-level list of tasks for converting an S8300 media server from a local survivable processor (LSP) to an internal call controller (ICC) without performing an upgrade. To complete these tasks, you will need the following additional documents:

- *Administrator Guide for Avaya Communication Manager*, 03-300509

To obtain this document, go to [http://support.avaya.com](http://support.avaya.com).

In this scenario, an S8300, configured as an LSP, is converted to ICC mode. In both modes, the S8300 is running Communication Manager release 2.1 or later and no software/firmware upgrade is performed.

Follow the detailed procedures in *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server*, 555-234-100, Issue 8, June 2005, for most of the tasks in this module.

**Note:**

The term *internal call controller* (ICC) is used to describe an S8300 installed in a G700 or G350 Media Gateway and configured as the primary controller for the gateway.
### Pre-site tasks

Perform the tasks in this section before going to the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Redesign networks.</td>
<td>Assess the impact of the LSP to ICC conversion on all voice and voice messaging network nodes. Plan for any necessary changes to network elements. In particular, collect the server configuration information for the new ICC; that is, host name and IP address, primary controller IP address, DNS/DHCP IP addresses (if used), UPS IP addresses (if used), static routes data (if used), time server data, modem return route data (if supported by Avaya Services).</td>
</tr>
<tr>
<td>2. Create/update license and authentication files on the RFA web site.</td>
<td>Go to <a href="http://rfa.avaya.com">http://rfa.avaya.com</a> and follow the steps in Converting between an LSP and ICC (or a similar region-specific document if the system is outside the U.S.) to create new license and authentication files for the ICC.</td>
</tr>
<tr>
<td>3. Obtain post-conversion service pack file, if any.</td>
<td>Go to <a href="http://support.avaya.com">http://support.avaya.com</a> and click Downloads to see if there is a service pack file available for the Communication Manager release you are currently running, for example, release 2.1, load 411.7. If there is a service pack file available, download it and take it to the site.</td>
</tr>
</tbody>
</table>

### Task checklist

The tasks include:

1. Removing the LSP from the current primary controller.
2. Updating the DHCP server alternate controller list.
3. Updating the gateway MGC list.
4. Installing IA770 messaging, if using it.
5. Setting date, time, and time zone.
6. Installing CM service pack, license, and authentication files, as needed.
7. Configuring the S8300B as an ICC.
8. Administering the new ICC and its media gateway.
9. Moving endpoints supported by the current primary controller to the ICC.

**Tasks**

Perform the tasks in this section at the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Go to the standard documentation</strong></td>
<td></td>
</tr>
<tr>
<td>Use <em>Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server, 555-234-100, Issue 8, June 2005.</em></td>
<td></td>
</tr>
<tr>
<td>To convert the LSP to an ICC, you complete selected tasks from Chapters 9 and 11. You need to complete only some of the tasks in these chapters. The specific tasks are identified by page number in the left-hand column. The subtasks to perform or skip are listed in the right-hand column.</td>
<td></td>
</tr>
<tr>
<td>It is important to note where the task is performed. Most of the tasks are done on a server or gateway — on the LSP/ICC S8300, on the primary controller for the LSP, on a DHCP server, or on the gateway processor (MGP). The headings below indicate on which of these devices the task is performed.</td>
<td></td>
</tr>
<tr>
<td><strong>On the LSP’s primary controller</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Administer the primary controller to which the LSP was formerly assigned. | ● Remove LSP node name.  
● Disassociate LSP from network regions.  
● Remove LSP from the LSP screen.  
● Repeat for every LSP to be controlled by the new ICC. |
| Start on page 157 if the primary controller was an S8300. |  
Start on page 163 if the primary controller was an S8700 or S8500. |
### Converting S8300 LSP mode to ICC mode

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| **2. Administer the media gateway.**<br>Starting on [page 170](#). | ● Remove media gateway.  
● Repeat for each gateway to be controlled by the converted LSP.  
Skip the subtasks, Verify Changes and Save Translations in this section. |
| **On the DHCP server** | |
| **3. Update the alternate controller list on the DHCP server.**<br>See [page 175](#). | |
| **On the gateway’s MGP** | |
| **4. Telnet to the MGP and change the gateway’s controller list.**<br>Start on [page 487](#). | ● Clear the gateway's controller list.  
● Enter the IP addresses of the new ICC and up to three alternate controllers.  
● If the media gateway is a G350, enter:  
  ```bash  
copy running-config startup-config  
```  
● Reset MGP. |
| **On the LSP to be converted** | |
| **5. Backup all system files — translations, OS, and security backup sets.**<br>Start on [page 229](#). | These backup sets will not be restored on the S8300B. They should be backed up in case it is necessary to revert to the original configuration. |
| **6. Record configuration information.**<br>[Page 232](#). | If you have not already done so, in the Record Configuration Information task, record all of the configuration information, regardless of the fact that you are not upgrading Communication Manager.  
You will re-enter some of this information after the conversion. |
| **7. Restore default server configuration settings** | On the Maintenance Web Interface, click **Restore Defaults** under Server Configuration. |

---

**872 Upgrading, Migrating, and Converting Media Servers and Gateways**
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| 8. If running a pre-2.2 CM version, and using IA770, install the CWY1 board on to the S8300B. | - Shut down the S8300B.  
- Remove the S8300B from the gateway. (If the gateway is a G700, the LED panel must be removed together with the S8300.)  
- Install the CWY1 board on to the S8300B.  
- Re-insert the S8300B (together with the LED panel if the gateway is a G700) into the gateway.  
- Install IA770 and administer CWY1 integration according to *Avaya IA770 INTUITY AUDIX Messaging Application, Release 3.0, Installation, Upgrades, and Troubleshooting* (11-300532). |
| 9. If running a CM version 2.2 or later, and using IA770, install H.323 integrated messaging. | - See *Avaya IA770 INTUITY AUDIX Messaging Application, Release 3.0, Installation, Upgrades, and Troubleshooting* (11-300532). |
| 10. Set time, date, and time zone.                                   | Set the time zone of the new ICC, and all LSPs under the ICC’s control must be set to the new ICC’s time zone. |
| 11. Install post-conversion service pack file, if any.               | Skip the Verify Media Server Configuration section starting on page 290.                          |
| 12. Install the new ICC license file.                                |                                                                                                  |
| Starting on page 263.                                                |                                                                                                  |
| 13. Install the new authentication file.                             |                                                                                                  |
| Starting on page 264.                                                |                                                                                                  |

3 of 6
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
Starting on page 464, ending on page 478. | - Fill in each Configure Server screen with data for the ICC. Some of the configuration data will be the same as that for the LSP.  
- On the **Configure Local Survivable Processor** screen, select the radio button that indicates this is NOT a local survivable processor. |
| 15. Administer the new ICC.  
Start on page 157. | - Assign node names.  
- Administer network regions.  
- Associate other LSPs (if any) with a network region.  
- Administer the LSP screen. |
| 16. Administer the media gateway.  
Starting on page 170. | - Add media gateway.  
- Repeat for each gateway to be controlled by the new ICC.  
For this scenario, the gateway will not automatically register with the ICC at this point. Skip the subtasks, Verify Changes and Save Translations in this section.  
When the gateway finally registers, the media modules will automatically populate, unless you are doing administration without hardware (AWOH). In this case, you will have to enter the media module types for each slot. |
| 17. Reassign endpoints from the current primary controller to the standalone ICC.  
For information on updating translations, see the *Administrator Guide for Avaya Communication Manager*, 03-300509. | - Update translations — add stations and trunks  
  - Using the Avaya Installation Wizard and the Electronic Pre-Installation Worksheet (EPW) is recommended.  
  - Alternatively, use SAT commands.  
- Place test calls to verify.  
- Reassign messaging system users of the current primary controller to the messaging system used by the new ICC. Enter test messages to verify. |
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Reboot the ICC.</td>
<td>Open a SAT session and enter <code>reset system 4</code>. After the reboot, any LSPs should be registered with the ICC, and in a few minutes translations should be synchronized.</td>
</tr>
<tr>
<td><strong>On the LSP’s primary controller</strong></td>
<td></td>
</tr>
<tr>
<td>19. Remove endpoints that will be controlled by the new ICC from the current primary controller.</td>
<td>● Remove users/endpoints from the current primary controller.</td>
</tr>
<tr>
<td><strong>On the new ICC</strong></td>
<td></td>
</tr>
<tr>
<td>20. Verify that the media gateway has registered with the ICC.</td>
<td>● Open a SAT session and enter <code>list media-gateway</code>. Verify that the Registered field (<code>Reg?</code>) is set to y. ● Place a test call.</td>
</tr>
<tr>
<td><strong>On LSPs of the new ICC (if any)</strong></td>
<td></td>
</tr>
<tr>
<td>21. Reboot LSPs (if any)</td>
<td>At the LSP’s SAT prompt, enter <code>reset system 4</code>.</td>
</tr>
<tr>
<td>22. Verify LSP translations date and time (if any).</td>
<td>To view the LSP’s translations date and time, enter <code>list configuration software</code>.</td>
</tr>
<tr>
<td><strong>On the ICC</strong></td>
<td></td>
</tr>
<tr>
<td>23. Verify LSP status (if any)</td>
<td>● At the ICC’s SAT prompt, enter <code>display lsp</code>. The LSP name and IP address should be listed. The <strong>Service State?</strong> field should be in-service/idle. ● The Translations Updated should match the translations date and time on the ICC. To view the ICC’s translations date and time, enter <code>list configuration software</code>.</td>
</tr>
</tbody>
</table>
24. If the LSPs (if any) translations have not synchronized with the ICC, invoke translation synchronization.

- On the ICC, enter the Linux command `filesync -a trans`.
- Ensure that the translation synchronization completed successfully. Wait several minutes, then check the timestamp of the LSP’s translation files using the SAT command `display lsp` on the ICC.

### Post-conversion tasks

25. Implement any additional design changes to voice and/or voice messaging networks.

6 of 6
Converting S8300 ICC mode to LSP mode

Introduction

This module provides a high-level list of tasks for converting an Avaya S8300 Media Server from an internal call controller (ICC) to a local survivable processor (LSP) without performing an upgrade. To complete these tasks, you will need the following additional documents:

- *Administrator Guide for Avaya Communication Manager*, 03-300509.

These documents are available at [http://support.avaya.com](http://support.avaya.com).

In this scenario, an S8300, configured as an ICC, is converted to LSP mode. In both modes, the media server is running Communication Manager release 2.1 or later, and no software/firmware upgrade is performed.

Follow the detailed procedures in *Installation and Upgrades for Avaya G700 Media Gateway and Avaya S8300 Media Server*, 555-234-100, Issue 8, June 2005, for most of the tasks in this module.

**Note:**

The term *internal call controller* (ICC) is used to describe an S8300 installed in a G700 or G350 Media Gateway and configured as the primary controller for the gateway.
Converting S8300 ICC mode to LSP mode

Pre-site tasks

Perform the tasks in this section before going to the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Redesign networks.</td>
<td>Assess the impact of the ICC to LSP conversion on all voice and voice messaging network nodes. Plan for any necessary changes to network elements. In particular, collect the primary server configuration information for the new LSP; that is, host name and IP address, primary controller IP address(es), DNS/DHCP IP addresses (if used), UPS IP addresses (if used), static routes data (if used), time server data, modem return route data (if supported by Avaya Services).</td>
</tr>
</tbody>
</table>
| 2. Create/update license and authentication files on the RFA web site. | ● Go to http://rfa.avaya.com and follow the steps in Converting between an ICC and LSP (or a similar region-specific document if the system is outside the U.S.) to create new license and authentication files for the LSP.  
● If the new primary controller that will support the LSP is being migrated to Communication Manager 2.1 or later, you need to create a new license file for the primary controller. |

Task checklist

The major tasks for converting an S8300 Media Server from ICC mode to LSP mode are:

1. Administering the primary controller for the new LSP.
2. Moving the endpoints supported by the ICC to the new primary controller.
3. Updating the DHCP server alternate controller list.
4. Updating the gateway MGC list.
5. Configuring the S8300B as an LSP.
## Conversion tasks

Perform the tasks in this section at the customer site.

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Go to the standard documentation</strong></td>
<td></td>
</tr>
<tr>
<td>To convert the ICC to an LSP, you complete selected tasks from Chapters 3 and 5. You need to complete only some of the tasks in these chapters. The specific tasks are identified by page number in the left-hand column. The subtasks to perform or skip are listed in the right-hand column.</td>
<td></td>
</tr>
<tr>
<td>It is important to note where the task is performed. Most of the tasks are done on a server or gateway — on the ICC/LSP S8300, on the primary controller for the LSP, on a DHCP server, or on the gateway processor (MGP). The headings in the table indicate on which of these devices the task is performed.</td>
<td></td>
</tr>
<tr>
<td><strong>On the new LSP’s primary controller</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Administer the primary controller that the LSP (after conversion) will use. | ● Assign node names  
● Administer network regions  
● Associate LSP with a network region  
● Administer the LSP screen |
| Start on page 157 if the primary controller is an S8300. | |
| Start on page 163 if the primary controller is an S8700 or S8500. | |
| 2. Administer the media gateway. | ● Add media gateway  
● Repeat for each gateway controlled by the current ICC. |
| Starting on page 170. | For this scenario, the gateway will not automatically register with the primary controller at this point. Skip the subtasks Verify Changes and Save Translations in this section.  
When the gateway finally registers, the media modules will automatically populate, unless you are doing administration without hardware (AWOH). In this case, you will have to enter the media module types for each slot. |
### Converting S8300 ICC mode to LSP mode

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
</table>
| 3. Reassign users/endpoints from the ICC to this primary controller. For information on updating translations, see the *Administrator Guide for Avaya Communication Manager, 03-300509*. | ● Update translations — add stations and trunks.  
- If the primary controller is a new installation, using the Avaya Installation Wizard and the Electronic Pre-Installation Worksheet (EPW) is recommended  
- Alternatively, use SAT commands.  
● Place test calls to verify.  
● Reassign IA770 users to the messaging system used by this primary controller. Enter test messages to verify. |
| 4. Update the alternate controller list on the DHCP server. See page 175. | On the DHCP server |
| 5. Telnet to the MGP and change gateway’s controller list. Start on page 487. | On the gateway’s MGP |
| 6. Verify that the media gateway has registered with the primary controller. | On the LSP’s primary controller |

- Clear the gateway’s controller list.  
- Enter the IP addresses of the primary controller and up to three alternate controllers.  
- Set the LSP transition points.  
- If the media gateway is a G350, enter:  
  ```  
  copy running-config startup-config  
  ```  
- Reset MGP  
- Open a SAT session and enter `list media-gateway`. Verify that the Registered field (`Reg?`) is set to y.  
- Place a test call.
<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. If IA770 is installed, get IA770 data and stop IA770.</td>
<td>Page 225.</td>
</tr>
<tr>
<td>8. Record configuration information.</td>
<td>If you have not already done so, in the Record Configuration Information task, record all of the configuration information, regardless of the fact that you are not upgrading Communication Manager. You will re-enter some of this information after the conversion. Page 232.</td>
</tr>
<tr>
<td>10. Set time, date, and time zone.</td>
<td>The time of the LSP must be set to the same time zone as its primary controller, even if the LSP is physically located in a different time zone. Page 259.</td>
</tr>
<tr>
<td>12. Install the LSP license file.</td>
<td>Starting on page 263.</td>
</tr>
<tr>
<td>14. Configure server.</td>
<td>● Fill in each Configure Server screen with data for the LSP. Some of the configuration data will be the same as that for the ICC. ● On the Configure Local Survivable Processor screen, select one of the three LSP choices depending on the primary controller type. Starting on page 464, ending on page 478.</td>
</tr>
</tbody>
</table>
Converting S8300 ICC mode to LSP mode

<table>
<thead>
<tr>
<th>Task</th>
<th>Steps/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Reboot the LSP.</td>
<td>● Open a SAT session and enter <code>reset system 4</code>.&lt;br&gt;After the reboot, the LSP should be registered with the primary controller and in a few minutes translations should be synchronized.</td>
</tr>
<tr>
<td><strong>On the LSP's primary controller</strong></td>
<td></td>
</tr>
<tr>
<td>16. Verify LSP status.</td>
<td>● At the SAT prompt, enter <code>display lsp</code>. The LSP name and IP address should be listed. The <strong>Service State?</strong> field should be <em>in-service/idle</em>.&lt;br&gt;● The Translations Updated should match the translations date and time on the primary controller. To view the primary controller's translations date and time, enter <code>list configuration software</code>.</td>
</tr>
<tr>
<td>17. If the LSP's translations have not synchronized with the primary controller, invoke translation synchronization.</td>
<td>● On the primary controller, enter the Linux command <code>filesync -a ipaddress</code> where <code>ipaddress</code> is the IP address of the LSP.&lt;br&gt;● Ensure that the translation synchronization completed successfully. Wait several minutes, then check the timestamp of the LSP translation files using the SAT command <code>display lsp</code> on the primary controller.</td>
</tr>
<tr>
<td><strong>Post-conversion tasks</strong></td>
<td></td>
</tr>
<tr>
<td>18. Implement any additional design changes to voice and/or voice messaging networks.</td>
<td></td>
</tr>
<tr>
<td>19. Re-register the S8300 as an LSP with the Avaya remote servicing center.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix A: Accessing the media server

To administer the media server, you must be able to access it. Personal computers and services laptop computers equipped with a network interface card (NIC), a terminal emulation program, and a Web browser are the supported access points for accessing the media server for initial configuration, aftermarket additions, and continuing maintenance.

You can access the media server either directly or remotely over the customer's network or over a modem. Connecting directly and remotely over the customer's network are the preferred methods. Remote access over a modem is for Avaya maintenance access only.

This section covers the following sections:

- Connecting to the media server directly on page 883
- Connecting to the media server remotely over the network on page 889
- Connecting to the media server remotely over a modem on page 889
- Logins on page 892
- Network configuration on page 893

Connecting to the media server directly

You access the media server directly by plugging a laptop computer into the services port on the media server. On the S8500 and S8700 series media servers, plug one end of a crossconnect CAT5 cable into the services access port, which defaults to port 2 (Eth1), on the back of the media server and the other end into the NIC on your computer. (You may need a NIC adapter.) On the S8300 Media Server plug the CAT5 cable into the services port on the front.

For connectivity information for your media server, see

- Services laptop computer connected directly to the S8300 Media Server on page 884
- Services laptop computer connected directly to the S8500 Media Server on page 885
- Services laptop computer connected directly to the S8700 Media Server on page 886
- Services laptop computer connected directly to the S8710 Media Server on page 887.
Accessing the media server

Figure 13: Services laptop computer connected directly to the S8300 Media Server

Figure notes:

1. Services laptop
2. Network interface card (NIC)
3. NIC adapter cable (if necessary)
4. Black CAT5 crossconnect cable
Connecting to the media server directly

Figure 55: Services laptop computer connected directly to the S8500 Media Server

**Figure notes:**

1. Services laptop
2. Network interface card (NIC)
3. NIC adapter cable (if necessary)
4. Black CAT5 crossconnect cable
Accessing the media server

Figure 56: Services laptop computer connected directly to the S8700 Media Server

Figure notes:

1. Services laptop
2. Network Interface Card (NIC)
3. NIC adapter cable (if necessary)
4. Black CAT5 crossconnect cable
You access the G700 Media Gateway directly by plugging a laptop computer into the Console port on the media gateway. Plug one end of the CAT5 cable into the services access port on the front of the media gateway and the other end into the NIC on your computer. For connectivity information for your media server, see Services laptop computer connected directly to the S8300 Media Server on page 884.
Computer specifications

The computer used for accessing the media server must have the following minimum specifications:

- Windows 2000/XP operating system
- 32-MB RAM
- 40-MB available disk space
- RS-232 port connector
- Network interface card (NIC) with a 10/100BaseT Ethernet interface
- 10/100 BaseT Ethernet, category 5 (or better), crossconnect cable with an RJ45 connector on each end (MDI to MDI-X)
- CD-ROM drive

Network configuration

You also must configure your network connection. For specific information, see Network configuration on page 893.

TCP/IP properties. The network connection for the computer is

- IP address: 192.11.13.5
- Subnet mask: 255.255.255.252

Once connected, you can administer the media server using these interfaces:

- Maintenance Web Interface for server-specific administration.
- A command line interface in a Telnet or terminal emulation application for Linux and SAT commands, respectively. For duplicated media servers, SAT commands are usable on the active media server only.

See Accessing the Maintenance Web Interface on page 891 for more details.
Connecting to the media server remotely over the network

You can access the media server from any computer connected through the LAN. However, make sure the LAN security settings allow remote access.

To access the media server, open a Web browser or a terminal emulation application. In the address field, type in the IP address or DNS host name assigned to the media server you want to access.

For duplicated media servers, you can use the active (alias) media server address to connect automatically to the media server that is active.

Connecting to the media server remotely over a modem

This section covers the following tasks:

- Setting up a dial-up connection on page 890
- Dialing up to the media server on page 890
- Finding the active media server IP address (duplicated servers) on page 891
- Accessing the Maintenance Web Interface on page 891
- Using the command line interface on page 891

Note:
Remote access over a modem is for Avaya services support access only and not for routine administration. Because the media server uses the same line to report alarms, it cannot report new alarms while the line is in use.

You can access the media server through an analog modem. The remote connection requires a data speed of at least 33.5 kilobits per second.

On the S8500 Media Server, you access the media server through the remote maintenance board installed in the media server. For information on accessing the SAMP, see the Avaya Server Availability Management Processor User Guide (03-300322).
Accessing the media server

Setting up a dial-up connection

To use a computer modem, you first must set it up through your dial-up connection.

1. Launch the dial-up connection program, which varies depending on your operating system. Generally, you can access them through My Computer or Control Panel folders. See your computer’s help system for specific information.

2. Double-click Make New Connection to open the New Connection wizard.

3. Within the wizard, and depending on your operating system, you may be asked to:
   - Assign a name to the connection.
   - Select dial-up to the network for the network connection type.
   - Select the modem you will be using for the dial-up connection.
   - Type in the appropriate telephone number to access the active server. See the filled-out Electronic Preinstallation Worksheet for the customer-supplied telephone number(s).
   - Under Advanced, select PPP and log on manually. You may have to type in a user name and password, depending on whether or not the media server you are dialing into has a non-null CHAP secret key. Use craft (ignore the password field).

Dialing up to the media server

To dial up, click the connection name or icon, if created. Once you are connected:

1. When prompted, enter your remote access login name and password.

2. When the Start PPP now! message appears, click Done. When you see the Connection Complete dialog box, your computer is connected to the media server.

3. To open a Telnet session, click Start > Run to open the Run dialog box.

4. In the Run dialog box, type telnet IPaddress and click OK, where IPaddress is the address of the actual active media server.
Finding the active media server IP address (duplicated servers)

These steps find the active media server’s IP address.

1. To get the IP address of the actual active media server, go to the task bar at the bottom right of your PC screen.

2. Right-click on the Network Status icon, and select Status, then the Details tab.
3. Scroll down until you see the Server IP address. This is the IP address for the media server you are connected to.

Accessing the Maintenance Web Interface

You can access the Maintenance Web Interface either by connecting directly to the services port on the media server (see Connecting to the media server directly on page 883) or connecting over the customer’s network. The only browser supported is MS Internet Explorer 5.5 or 6.0.

When connected directly to the media server, you must disable all proxy servers. See Browser settings on page 894 for instructions.

1. Open the MS Internet Explorer Web browser.
   - If a direct connection, in the Address field, type 192.11.13.6.
   - If a remote connection, in the Address field, type in the IP address or DNS host name of the media server.
2. When prompted, log in.

Using the command line interface

Telnet: To open a Telnet window session.

1. Click Start > Run to open the Run dialog box.
   - If a direct connection, type telnet 192.11.13.6 and click OK.
   - If a remote connection, type in the IP address of the media server (active server if duplicated media servers—SAT commands are usable only on the active media server.)
2. When prompted, log in.
Accessing the media server

**Terminal Emulation:** To use a command line interface in a terminal emulation window open your terminal emulation application. The terminal emulation program port settings must be configured as follows:

- 115200 baud
- No parity
- 8 data bits
- 1 stop bit
- No flow control

**Note:**

Avaya Native Configuration Manager, Avaya Terminal Emulation, and HyperTerminal are the only terminal emulation programs supported.

Establish a network connection to the media server using either the IP address or the DNS host name. Use port **5023** for this connection. When prompted, log in.

---

**Logins**

Initial configuration and upgrades by an Avaya field tech or business partner requires a services login, such as craft or dadmin. Avaya field techs can use a unique password assigned to that customer’s system.

After installing the Avaya authentication file, Avaya Communication Manager has a password for the craft login that is unique to the customer’s system and available when connected directly to the media server. To bypass the ASG challenge and response, use this password the next time you log in as **craft**. Every other means of craft access still require an ASG challenge and response. The revised password is recorded by RFA and is obtained from ASG Conversant at 1-800-248-1234 or 1-720-444-5557.

Customers can set up their own logins for accessing Avaya’s media servers. See the Administrator Guide for Avaya Communication Manager (03-300509) for specific information. You must have superuser permission to create or change logins and passwords.

⚠️ **Important:**

When assigning login IDs, do not start them with a number.
Network configuration

⚠️ Important:
Make a record of any IP addresses, DNS servers, or WINS entries that you change when you configure your services computer. You need to restore these entries to connect to other networks.

A new network connection must be configured as follows:

Note:
These instructions are for Windows 2000/XP only.

1. On your computer desktop, right-click My Network Places and left-click Properties to display the Network Connections window.

Windows 2000/XP should have automatically detected the Ethernet card in your system and created a LAN connection for you. More than one connection may appear.

2. Right-click on the correct Local Area Connection and left-click Properties to display the Local Area Connection Properties dialog box.


4. Click Properties to display the Internet Protocol (TCP/IP) Properties dialog box.

5. On the General tab, select Use the following IP address. Enter the following:
   - IP address: 192.11.13.5
   - Subnet mask: 255.255.255.252

Make a note of any IP addresses or other entries that you have to clear. You may need to restore them later to connect to another network.

6. Select Use the following DNS server addresses. The entries for Preferred DNS server and Alternate DNS server should both be blank.

7. Click Advanced at the bottom of the dialog box to display the Advanced TCP/IP Settings dialog box.

8. Click the DNS tab. Make sure no DNS server is administered (the address field should be blank).

9. Click OK, OK, and Close to close all the windows.

10. Reboot the system if directed to do so.

After you have made these changes to your computer’s network configuration information, the Network and Dial-up Connections window shows the status of the Local Area Connection:
   - Enabled appears when the laptop's Ethernet cable is connected to the server.
   - Disabled or unplugged appears if the NIC is not connected to anything.
Connecting directly to the media server

These steps change the browser settings.

Note:
Instructions are for Internet Explorer 6.0 only.

1. Click **Tools > Internet Options**.
2. Select the **Connection** tab.
3. In the LAN Settings box (lower righthand), click Advanced
4. In the Exceptions box after the last entry, type `;192.11.13.6`
5. Click OK, then OK, then OK again to close all the dialog boxes.

Connecting remotely through the network

When connected through a proxy server, a connection session to a media server tends to time out. To avoid having the media server time out during a session, add the media servers’ host names or IP addresses to the list of host names and IP addresses.

Note:
Instructions are for Internet Explorer 6.0 only.

1. Click **Tools > Internet Options**.
2. Select the **Connection** tab.
3. Click on **LAN settings**, then **Advanced**.
4. In the Do not use proxy server for addresses beginning with: field, type in the IP address for each media server you intend to access remotely. If the IP addresses have the first or first and second octets the same, you can shorten it to xxx.xxx.* (example, 135.9.*).
5. Click OK, then OK, then OK to close all the dialog boxes.
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