



Job Aid: What Provisioning Tools and Wizards Should I Use?

Avaya Servers, Media Gateways, and Data Switches

Note:

The descriptions in this job aid refer to tools available in support of, or in conjunction with, Communication Manager release 5.2.

To save time on installations and upgrades of the Avaya servers, media gateways, and converged switches, there are three tools available for your use:

- [The Installation Wizard](#) (with the Electronic Preinstallation Worksheet and other templates)
- [The Gateway Installation Wizard](#) (with the Electronic Preinstallation Worksheet)
- [The Software Update Manager](#)

To save time and to simplify initial configurations of devices in large networks, and to make ongoing configuration and policy changes easier, there are four additional tools available for your use:

- [The Provisioning and Installation Manager](#)
- [Secure Access Administration](#)
- [The Network Configuration Manager](#)
- [The Network Region Wizard](#)

Job Aid: What Provisioning Tools and Wizards Should I Use?

The following table shows at-a-glance when to use each of the standard tools (IW=Installation Wizard, GIW=Gateway Installation Wizard, PIM=Provisioning Installation Manager, SAA=Secure Access Administration, SUM=Software Update Manager, NCM=Network Configuration Manager, NRW=Network Region Wizard):

Component	Use	New Installation	Upgrade Firmware	Upgrade Software	Configure Devices
G700	with an S8300	IW	SUM ² ,IW		NCM, NRW ¹
	without an S8300	GIW	SUM ²		NCM
G350, G430, G450	with an S8300	IW	SUM ² ,IW		PIM, SAA,NCM,NRW ¹
	without an S8300	GIW	SUM ²		PIM,SAA,NCM
G250, G250-BRI, G250-DS1, or G250-DCP	with an S8300	IW	SUM ² , IW		PIM ³ , SAA,NCM,NRW ¹
	without an S8300	GIW	SUM ²		PIM ⁴ ,SAA, NCM
IG550	without an S8300		SUM ²		PIM ⁴ ,SAA, NCM
S8300	as an LSP	IW		SUM ⁴	
	as a Primary Controller	IW		SUM ⁴	NRW ¹
S8400	as a Primary Controller	IW		SUM ⁴	NRW ¹
	as an ESS	IW		SUM ⁴	
S8500B, S8500C, S8510	as a Primary Controller	IW		SUM ⁴	NRW ¹
	as an LSP or ESS	IW		SUM ⁴	
S8710, S8720, or S8730	as a Primary Controller	IW		SUM ⁴	
	as an ESS (only S8720, S8730)			SUM ^{4,5}	
C360 and X330	Any		SUM		SAA, NCM
Programmable TN circuit packs			SUM		

1. Use Network Region Wizard from a primary controller to configure network regions and assign gateways to them.
2. The Software Update Manager is the preferred tool because it can automatically filter the necessary software and firmware required from the Avaya support Web site and perform upgrades of devices connected to multiple Communication Manager networks.
3. Only PIM configures the Survivable Local Server feature on the G350, IG550, and G250 family of media gateways.
4. Software Update Manager tool is used to upgrade Communication Manager servers from release 3.1 or later. SUM can upgrade multiple systems simultaneously. SUM also installs service packs and updates license and authentication files.
5. The Software Update Manager is the preferred tool and is used to upgrade a system that includes S8700-Series ESS. For Server configuration and ESS translation refer to topic Upgrading Communication Manager on the S8700-series main or ESS servers from R2.x/R3.x/R4.x/R5.x to R5.2 using Manage software in *Upgrading Avaya Aura™ Communication Manager on Avaya S8xxx Servers*, 03-602885.

2 Job Aid: What Provisioning Tools Should I Use

The following table summarizes when you would use each of the standard tools and what it does for you.

If you need to:	Then use:
<p>Install a new or upgrade a single existing S8300-Series Server, S8400, S8500-Series Server, S8710, S8720, or S8730 Server, including:</p> <ol style="list-style-type: none"> 1. The G250, G250-BRI, G250-DS1, G250-DCP, G350, G430, G450 or G700 Media Gateway that contains an S8300 2. Other G700s in the stack that contains an S8300 LSP 3. Media modules within the media gateways 	<p>The Installation Wizard (IW) on site, with a laptop connection to the server.</p> <p>This wizard installs new software on Servers and performs the initial configuration. It upgrades firmware on new or existing media gateway processors and media modules.</p> <p>You could also use the Electronic Preinstallation Worksheet (EPW), which you get from your project manager. You may also use the Name and Number List (for S8300 only) and the Custom Template (for S8300 only) with the wizard for more comprehensive custom installations.</p> <p>Note:</p> <p>For some server upgrades, especially multiple LSP, ESS, and main server upgrades, The Software Update Manager would be the best option.</p>
<p>Install a new G250, G250-BRI, G250-DS1, G250-DCP, G350, G430, G450, or G700 that does not contain an S8300.</p>	<p>The Gateway Installation Wizard (GIW) on site, with a laptop connection to the G250, G250-BRI, G250-DS1, G250-DCP, G350, G430, G450 or G700. You could also use the Electronic Preinstallation Worksheet (EPW), which you get from your project manager.</p> <p>This wizard configures the IP addresses for the gateway, including the gateway processors, the controller list, and the VoIP engine.</p>
<p>Upgrade multiple, geographically-distributed G250/G250-BRI/G250-DS1/ G250-DCP/G350/G430/ G450/G700/IG550 gateways, along with X330 WAN Expansion modules, data switches, and endpoints.</p>	<p>The Software Update Manager from a customer's Enterprise Network Management server connected to the customer's WAN/LAN.</p>

Job Aid: What Provisioning Tools and Wizards Should I Use?

If you need to:	Then use:
<p>Schedule upgrades of multiple, geographically-distributed LSPs, ESSs, or G250/G250-BRI/G250-DS1/G250-DCP/G350/G430/G450/G700/IG550 gateways: all of which have the same primary controller, either an S8300, S8400, S8500-Series, S8700-Series</p>	<p>The Software Update Manager from a customer’s Enterprise Network Management server connected over the customer’s WAN/LAN. This is the preferred tool for upgrading firmware and software and supports large, distributed networks of gateways connected to multiple Communication Managers. Software Update Manager can also be used to upgrade and configure devices at a staging center prior to shipping the gateways to remote locations. This tool upgrades the firmware for the gateway processors, TN circuit packs, and media modules connected to a single Communication Manager server. The tool can also upgrade software on the primary controller, LSPs, and ESSs if the existing servers reside on Communication Manager R3.1 software or higher. The upgrades can also include service pack, license, and authentication file installations.</p> <p>Note: Upgrade Tool cannot be used to upgrade any Communication Manager servers to Communication Manager 5.2 or later.</p>
<p>Upgrade (download) firmware to multiple TN circuit packs.</p>	<p>The Software Update Manager from a customer’s Enterprise Network Management server connected to the customer’s WAN/LAN. This function is available for S8400, S8500B, S8500C, S8510, S8710, S8720, and S8730 Servers running Communication Manager.</p>
<p>Configure G250/G250-BRI/G250-DS1/G250-DCP/G350/G430/G450 Media Gateways and IG550 Integrated Gateways that have already been added to, and are accessible over, the WAN/LAN.</p>	<p>The Provisioning and Installation Manager (PIM) from a customer’s Enterprise Network Management server connected to the customer’s WAN/LAN. PIM can also be used to configure devices at a staging center prior to shipping the gateways to remote locations.</p>
<p>Configure the Survivable Local Server (SLS) on a G250/G250-BRI/G250-DS1/G250-DCP/G350/G430/G450 Media Gateway and IG550 Integrated Gateway</p>	<p>The Provisioning and Installation Manager (PIM) from a customer’s Enterprise Network Management server connected to the customer’s WAN/LAN. PIM can also be used to configure devices at a staging center prior to shipping the gateways to remote locations.</p>
<p>Configure gateways or data switches that have already been installed and initially configured and are accessible over the LAN.</p>	<p>The Network Configuration Manager from a customer’s Enterprise Network Management server connected to the customer’s WAN/LAN. The NCM uses configuration files that have been backed up and stored in a configuration library.</p>

If you need to:	Then use:
<p>Configure a large VoIP network with multiple network regions, including codec sets and call admission control via bandwidth limits (CAC-BL).</p>	<p>The Network Region Wizard, on the main server, using a connection to the customer's WAN/LAN. Use the Electronic Preinstallation Worksheet for Network Regions (EPW-NR) with the Network Region Wizard, which allows you to automatically fill in the administration parameters in the Network Region Wizard.</p>
<p>Configure and manage secure access by administrators of gateways or converged switches in a network.</p>	<p>Secure Access Administration from a customer's Enterprise Network Management server connected to the customer's WAN/LAN. SAA manages CLI and SNMPv3 login names and passwords, user roles, and SSH certificates for access to network devices.</p>

Access to the Wizards and Provisioning Tools

The Installation Wizard and Network Region Wizard are accessed from the Avaya Integrated Management web interface, which is embedded in Communication Manager. The Gateway Installation Wizard is downloadable from the support.avaya.com/avayaiw Web site and runs on a laptop. The Software Update Manager and Network Configuration Manager are launched from the Network Manager Console, the main control panel for the Enterprise Network Management offer. The Provisioning and Installation Manager is also launched from the Network Manager Console, though PIM is separately installed.

Note:

For the configuration of the Survivable Local Server on the G250, G350, and G450 Media Gateways, PIM is the preferred tool. However, generally these tools do not replace *all* normal installation or upgrade procedures. And, for Communication Manager software installations and upgrades, the Maintenance Web Pages embedded in the server are always an available tool. However, the provisioning tools automate some or many of the tasks associated with an installation or an upgrade. For information on additional tasks required for an installation or upgrade, see:

- *Quick Start for Hardware Installation: Avaya G700 Media Gateway and Avaya S8300 Server*, 555-233-150
- *Installing and Upgrading the Avaya G700 Media Gateway*, 03-603333
- *Quick Start for Hardware Installation: Avaya G350 Media Gateway*, 03-300148
- *Installing and Upgrading the Avaya G350 Media Gateway*, 03-300394
- *Quick Start for Hardware Installation: Avaya G250 Media Gateways*, 03-300433
- *Installing and Upgrading the Avaya G250 Media Gateway*, 03-300434
- *Quick Start for Hardware Installation: Avaya G430 Media Gateway*, 03-603236
- *Installing and Upgrading the Avaya G430 Media Gateway*, 03-603233
- *Quick Start for Hardware Installation: Avaya G450 Media Gateway*, 03-602052
- *Installing and Upgrading the Avaya G450 Media Gateway*, 03-602054
- *Provisioning and Installation Manager Configuration*, 14-300286
- The appropriate installation documents for data switches available at <http://avaya.com/support> under the LAN, Backbone, and Edge Access Switches section

The Installation Wizard

You can use the Avaya Installation Wizard (IW) as a tool to assist you to install Communication Manager release 5.2 for S8300B, S8300C, S8300D, S8400, S8400B, S8500B, S8500C, S8510, S8710, S8720, and S8730 Servers and G250, G250-BRI, G250-DS1, G250-DCP, G350, G430, G450, and G700 Media Gateways. The Installation Wizard is designed to get the system up and running in a basic installation as quickly as possible.

What the Wizard Can and Cannot Do

You can use the Avaya Installation Wizard to do the following:

Note:

To upgrade software on a Server, the IW must be running on that Server. To install or upgrade firmware on a G700, G430, G450, G350, G250, G250-BRI, G250-DS1, or G250-DCP Media Gateway, IW must be running on the S8300 that resides in the media gateway.

Note:

You cannot use the IW on pre-3.0 release of Communication Manager to upgrade a Server to Communication Manager R5.2.

- Install a new S8400, S8500B, S8500C, S8510, S8710, S8720, or S8730 Server, with the S8500B/S8500C/S8510 configured as a primary controller, Enterprise Survivable Server (ESS), or Local Survivable Processor (LSP), and the S8710/S8720/S8730 Server configured either as a primary controller or ESS.
- Install an S8300/G700 stack, an S8300/G450, an S8300/G350, or an S8300/G250/G250-BRI/G250-DS1/G250-DCP, with S8300 configured as a primary controller or Local Survivable Processor (LSP). The IW supports the S8300B, S8300C and S8300D.
- Install SIP Enablement Services (SES) software when the S8300 is a primary controller. SES software is automatically installed with Communication Manager software. Some of the Communication Manager server configuration you perform in IW also applies to the SES capability. However, additional configuration using the SES interface is also required.

Job Aid: What Provisioning Tools and Wizards Should I Use?

- Install CM Messaging when the S8300 or S8400 is a primary controller (*only* if you run the CM Messaging installation concurrently with the Communication Manager installation).

 **CAUTION:**

If you install or upgrade Communication Manager on the Server and do not concurrently install or upgrade CM Messaging software, you must reinstall Communication Manager, along with CM Messaging software, if you want to install or upgrade CM Messaging software later.

- Install service packs to Communication Manager software.
- Install security updates to Communication Manager or Linux software.
- Upgrade Communication Manager R3.0, R3.1, R4.0, R5.0, to R5.2 software on an S8300, S8400, S8500B, S8500C, S8510, S8710, S8720, or S8730 Server to a later release. You can also upgrade CM Messaging on an S8300 or S8400 primary controller (only if you run the CM Messaging upgrade concurrently with the Communication Manager upgrade).

Note:

You cannot use IW to upgrade Communication Manager from a pre-R3.0 version of Communication Manager.

 **CAUTION:**

If upgrading CM Messaging on an S8300 or S8400 Server, be sure that messaging is enabled *before* you run the CM Messaging software upgrade with the Installation Wizard. You can check this with the Maintenance Web Interface by selecting Messaging Software under Miscellaneous. Messaging is enabled if you see the Disable button and "Internal Messaging is enabled" at the end of the note on the screen. The CM Messaging upgrade will fail if you disable CM Messaging prior to running the IW for the upgrade.

- Install firmware on G250, G250-BRI, G250-DS1, G250-DCP, G350, G430, G450, and G700 Media Gateways and their media modules.
- Configure alarming strategy.
- Configure an encrypted master key for configuration files.
- Configure the USB modem on the G250, G250-BRI, G250-DS1, G250-DCP, G350, G430 and G450 Media Gateways, including enabling Access Security Gateway (ASG) or CHAP authentication.
- Set Product ID and install unicode files.
- For the S8300 only, configure telephony, trunking parameters and trunk diagnostics.

You cannot use the Avaya Installation Wizard to do the following:

- Install a G700 Media Gateway containing an S8300 Server, acting either as a primary controller or as LSP.
- Install an IG550 Integrated Gateway.
- Install a G450, G350, G250, G250-BRI, G250-DS1, or G250-DCP Media Gateway that does *not* contain an S8300 Server, acting either as a primary controller or as an LSP.
- Install or upgrade an LSP or a G250, G250-BRI, G250-DS1, G250-DCP, G350, G450, or G700 Media Gateway from a remote primary controller.
- Install a P330 Expansion Module in a G700 or an X330WAN Module.

In addition, there are some installation tasks that you must still perform manually following instructions in *Installing and Upgrading the Avaya G700 Media Gateway*, 03-603333, *Installing and Upgrading the Avaya G350 Media Gateway*, 03-300394, *Installing and Upgrading the Avaya G430 Media Gateway*, 03-603233, *Installing and Upgrading the Avaya G450 Media Gateway*, 03-602054, or *Installing and Upgrading the Avaya G250 Media Gateway*, 03-300434. These are tasks such as completing the RFA process for acquiring license and authentication files.

Electronic Pre-installation Worksheets and Templates

To speed the installation process, use the following electronic worksheets (as Microsoft Excel files) with the Installation Wizard:

- [Electronic Preinstallation Worksheet \(EPW\)](#)
- [Name and Number List \(for S8300 only\)](#)
- [Custom Template \(for S8300 only\)](#)

These worksheets provide a way of collecting critical information before going on site. If these worksheets are populated and downloaded onto your laptop, then the data in these worksheets can be imported directly into the wizard at the appropriate time.

EPW, Name and Number List and Custom Template spreadsheets can be downloaded from <http://support.avaya.com/avayaiw>. Information on how to use these files is contained within the files themselves.

Electronic Preinstallation Worksheet (EPW)

For greatest efficiency, obtain the Electronic Preinstallation Worksheet (EPW), which is filled in by the customer and the Avaya project manager. This worksheet is an Excel spreadsheet from which the Avaya Installation Wizard imports IP address-related data to configure and install the S8300/S8400/S8500B/S8710/S8720/S8730 Servers, G250/G250-BRI/G250-DS1/ G250-DCP/ G350/G450/G700 Media Gateways, P330 Stack Processor, and VoIP Engines. The EPW also can be used to supply basic translations for the S8300/G700, S8300/G350, S8300/G450 and S8300/G250/G250-BRI/G250-DS1/G250-DCP configurations.

Once the EPW has been imported, all the values from the EPW appear as defaults in the wizard.

Name and Number List (for S8300 only)

The Name and Number List, like the EPW, is an Excel spreadsheet. The Name and Number List contains administration data for multiple users. The IW pulls this data to automatically administer users on the new system. This administration includes users' names, unicode names (for native names in Chinese, Japanese, and other non-ASCII character languages), extensions, telephone types, classes of service, languages, locations, and voice mail capability. The Name and Number List also includes hunt group port configuration for new CM Messaging systems.

 **CAUTION:**

For the IW to install an CM Messaging system, you *must* complete the subscriber data on the Name and Number List and then use the Name and Number List with the IW.

As each user's name and accompanying data is imported, the wizard will administer the station using the provided information along with default values for other station fields. After the import has completed, each station will be ready to be plugged into the wall jack and activated. Analog and digital phones will be ready for a TTI registration sequence. IP phones will be ready for an IP registration sequence.

The default values used by the wizard can be viewed at <http://support.avaya.com/avayaiw> under the "View Default Parameters" link. If the wizard defaults do not meet the customer's needs, you can use a custom template.

Custom Template (for S8300 only)

The Custom Template is a third Excel spreadsheet that allows automatic administration of key custom Communication Manager translations. These are:

- Classes of Service
- Feature Access Codes
- Trunk Access Codes
- Telephone button assignments
- TTI codes
- Voice mail hunt group number and coverage path
- You can use a custom template in the following countries:
 - United States and Canada
 - France
 - Japan
 - United Kingdom
 - Russia
 - Germany
 - Brazil
 - Mexico
 - Italy
 - Spain

If multiple installations can use similar default translations, you can use a single Custom Template for all installations.

Availability of Avaya Installation Wizard

The Avaya Installation Wizard is a universally-available part of Communication Manager software and is accessible from the Web pages interface.



Important:

Ensure that the latest version of Avaya Installation Wizard is installed. The most recent version of Avaya Installation Wizard, as well as its documentation, can be accessed online at <http://support.avaya.com/avayaiw>.

For more information

For more information, see *Job Aid: Avaya Installation Wizard*, 555-245-754, available at <http://support.avaya.com/avayaiw> or the installation documentation for the media gateways:

- *Installing and Upgrading the Avaya G700 Media Gateway*, 03-603333
- *Installing and Upgrading the Avaya G250 Media Gateway*, 03-300434
- *Installing and Upgrading the Avaya G350 Media Gateway*, 03-300394
- *Installing and Upgrading the Avaya G430 Media Gateway*, 03-603233
- *Installing and Upgrading the Avaya G450 Media Gateway*, 03-602054

To locate these documents, go to <http://support.avaya.com>. Select **Find Documentation and Downloads by Product Name**, and search for **G250**, **G350**, **G430**, **G450**, or **G700**.

The Gateway Installation Wizard

Use the Avaya Gateway Installation Wizard to install or upgrade the following:

- A new G250, G250-BRI, G250-DS1, G250-DCP, G350, G430, G450 or G700 Media Gateway that is controlled by a remote Server but does *not* have an S8300.

The Gateway Installation Wizard allows you to configure the gateway IP addresses without having to enter CLI commands. It also allows you to install firmware that has been made available on either a TFTP or an FTP server.

Note:

You cannot use the Gateway Installation Wizard to configure an X330 Expansion module. Also, you cannot configure or upgrade an IG550 Integrated Gateway with the Gateway Installation Wizard.

As with the Avaya Installation Wizard, obtain and use the Electronic Preinstallation Worksheet (EPW) for greatest efficiency. From the worksheet, the GIW imports IP address-related data to configure and install the G250/G250-BRI/G250-DS1/G250-DCP/G350/G450/G700 Media Gateways, P330 Stack Processor, and VoiP Engines.

Once the EPW has been imported, all the values from the EPW appear as defaults in the wizard.

Availability of Gateway Installation Wizard

The Gateway Installation Wizard is universally available and can be downloaded from <http://support.avaya.com/avayaiw>.

For more information

For more information, see *Job Aid: Avaya Gateway Installation Wizard*, available at <http://support.avaya.com/avayaiw> or the installation documentation for the media gateways:

- *Installing and Upgrading the Avaya G700 Media Gateway*, 03-603333
- *Installing and Upgrading the Avaya G250 Media Gateway*, 03-300434
- *Installing and Upgrading the Avaya G350 Media Gateway*, 03-300394
- *Installing and Upgrading the Avaya G430 Media Gateway*, 03-603233
- *Installing and Upgrading the Avaya G450 Media Gateway*, 03-602054

To locate these documents, go to <http://support.avaya.com>. Select **Find Documentation and Downloads by Product Name**, and search for **G250**, **G350**, **G430**, **G450**, or **G700**.

The Software Update Manager

Communication Manager Servers

The Avaya Software Update Manager allows you to automatically upgrade Communication Manager software, service packs, security updates, licenses, and authentication files on Avaya Communication Manager Servers used in the customer's network. The Integrated Management (IM) suite needs to be installed to run the Software Update Manager application. The set of servers included for support in Communication Manager release 5.2 include:

- The S8300B, S8300C, S8400, S8500B, S8500C, S8510, S8710, S8720, and S8730 Servers as primary controllers.
- The S8400B, S8500B, S8500C, S8510, S8710, S8720, or S8730 Servers as ESSs.
- The S8300B, S8300C, S8300D, S8500B, S8500C, and S8510 Servers as LSPs.

In addition, Software Update Manager can upgrade software for the following:

- The SAMP on an S8500B, S8500C or S8510 Server.
- The MPC on an S8400 Server.

Gateways, circuit packs, and other devices

The Avaya Software Update Manager also allows you to automatically upgrade software and firmware on a number of other devices used in the customer's network, including:

- The G700, G450, G430, G350, G250, G250-BRI, G250-DS1, and G250-DCP Media Gateways, including their media modules
- The TGM550 module for the IG550 Integrated Gateway

Note:

The Telephony Interface Modules in the IG550 are not upgradeable as the TGM550 (Telephony Gateway Module) MGP firmware controls and updates the modules.

- Self-downloadable TN circuit packs with the required minimum firmware version for centralized firmware download:
 - TN799DP CLAN circuit pack, firmware version 17 or higher
 - TN2602AP IP Media Resource 320, firmware version 20 or higher
 - TN2501AP VAL circuit pack, firmware version 10 or higher
 - TN2312BP IPSI circuit pack, any firmware version

- TN8412 SIPI circuit pack, any firmware version
 - Non-self-downloadable TN circuit packs:
 - TN464GP/HP DS1 circuit pack
 - TN2464BP/CP DS1 circuit pack
 - TN2313AP DS1 circuit pack
 - TN2302AP IP Media Processor circuit pack
 - TN771DP Maintenance Test circuit pack
 - TN2214CP DCP circuit pack
 - TN2224CP DCP circuit pack
 - TN793CP Analog circuit pack
 - TN8400AP processor circuit pack
 - The C360 converged switches
 - The P330 switches
- The software you can upgrade includes the following software types:
- Image
 - Web Management

Availability of Software Update Manager

To use the Software Update Manager, the customer should have Integrated Management Enterprise Network Management, which is an entitlement for Communication Manager Enterprise Edition release 5.2. The Enterprise Network Management package, which can also be purchased from Avaya, is installed on a customer-provided personal computer connected to the customer's LAN.

Using Software Update Manager

Avaya Software Update Manager is launched from the Network Manager Console, the main control panel for Enterprise Network Management. Software Update Manager can be operated manually, where the operator specifies the firmware images to be downloaded by consulting the Avaya Support Web site for the latest available version. Software Update Manager can also retrieve image files and service packs automatically from the Avaya Support Web site. To operate the upgrade automatically, the PC hosting Software Update Manager must have external Internet access. In addition, Software Update Manager must have Download Center identification data necessary for automatically logging into the Download Center.

The Software Update Manager is the preferred tool for downloading firmware to multiple TN circuit packs that reside in CMC1, SCC1, MCC1, G600, and G650 Media Gateways connected to S8400, S8500-Series and S8700-series Servers. The Software Update Manager uses Secure Copy (SCP) to automatically download files from a centralized SCP-enabled server to any number of TN circuit packs simultaneously.

The Software Update Manager is the preferred Tool for upgrading firmware on multiple G700, G450, G430, G350, G250, G250-BRI, G250-DS1, and G250-DCP Media Gateways. The Software Update Manager, which can be run manually or scheduled to run, can also perform, on networks with single or multiple Communication Manager servers, firmware upgrades on data devices and perform both of the following two key functions:

- Automatically locate and download the most up-to-date firmware from the Avaya support Web site.
- Check compatibility of the firmware with the software of the supporting Server.
- Upgrade firmware on the G700, G450, G430, G350, G250, G250-BRI, G250-DS1, and G250-DCP Media Gateways in the network.

For more information

For more information, see *Avaya Software Update Manager User Guide*, available at <http://support.avaya.com>. Select **Find Documentation and Downloads by Product Name**, and search for **Integrated Management**.

The Upgrade Tool

Upgrade Tool cannot be used to upgrade any Communication Manager servers to Communication Manager 5.2 or later.

Note:

As long as the main server remains on pre-CM5.2 release, the supported media gateways (G700 and G350) can still be upgraded. After the main server is upgraded, the Upgrade Tool cannot be used for any upgrades, Communication Manager or media gateway.

The Provisioning and Installation Manager

The Provisioning and Installation Manager (PIM) allows you to remotely manage and configure the following media gateways:

- G250, G250-BRI, G250-DS1, and G250-DCP Media Gateways, for general configuration and also configuration of Standard Local Survivability (SLS) when an S8300 LSP is not present
- G350 Media Gateway
- G430 Media Gateway
- G450 Media Gateway
- IG550 Integrated Gateway, specifically the TGM550 Telephony Gateway Module

You can also use PIM to configure media gateways at a staging center prior to shipping the gateways to remote locations. This use of PIM enables lower cost configurations with reduced errors, especially when the PIM templates are used to configure multiple devices simultaneously.

Note:

Except for the TGM550, you can initially install the media gateway with the GIW so that the media gateway is added to the LAN/WAN. You can then complete the configuration of the media gateway with PIM.

You can manage and configure media gateways individually, as groups, or all together. With PIM, you can save large amounts of configuration time. PIM allows you to do the following:

- Create device templates that media gateways can share

Once you have created and validated a device template, you can apply it to multiple devices simultaneously. Device templates include hardware data for media modules, including slot locations, Ethernet port parameters, and other media module parameters for LAN/WAN media modules.

Job Aid: What Provisioning Tools and Wizards Should I Use?

- Create monitoring templates that the media gateways can share
Once you have created and validated a monitoring template, you can apply it to multiple devices simultaneously. Monitoring templates include definitions for Quality of Service (QOS) and Real-Time Transport Protocol (RTP) data in the Management Information Base (MIB) and definitions of Converged Network Analyzer (CNA) test plugs for media gateways.
- Create general and DHCP configuration templates that the media gateways can share
Once you have created and validated a configuration template, you can apply it to multiple devices simultaneously. Templates include configuration data for items such as DHCP servers, SNMP, RADIUS servers, media gateway controller lists, and routing.

Note:

This capability does not apply to the TGM550.

- Create a profile for each media gateway in order to configure unique aspects of a gateway.
A profile includes configuration data such as IP address, static routes, and modem configuration, plus an ARS table for use in SLS mode. A profile can be configured from scratch, or it can incorporate the copy of a profile from another device profile or from an Electronic Preinstallation Worksheet (EPW).
- Create groups that share similar locations, network regions, or other characteristics, such that they can be scheduled for configuration or reconfiguration at the same time. Configuration templates may be distributed to groups, thereby handling a large number of configuration changes as a single task.
- Create schedules that automatically, and on a recurring basis, synchronize the subset of Communication Manager translations that the G450/G430/G350/G250/G250-BRI/G250-DS1/G250-DCP Media Gateways and TGM550 Integrated Gateway store for use in SLS mode. A schedule can synchronize translations up to eight times a day.

Availability of Provisioning and Implementation Manager

PIM is installed on an Enterprise Windows Server that has a 5.2 version of the Integrated Management Enterprise Network Management offer, which is an entitlement for Communication Manager Enterprise Edition release 5.2. Enterprise Network Management, which can also be purchased from Avaya, is installed on a customer-provided personal computer or server connected to the customer's LAN. PIM is accessed using a web browser. Device access for PIM configuration is over a LAN/WAN using SNMPv1 or SNMPv3 and SSH.

High-level steps for configuring media gateways using PIM

At a high level, the process for configuring media gateways with PIM might consist of the following steps:

1. Network experts create configuration templates at the staging location.

Each template contains a set of information to be applied to a group of gateways.

2. Network experts or the administrator creates device profiles at the staging location using the PIM device profile wizard, an EPW, or imported files.

A device profile applies to an individual media gateway.

3. The administrator creates a “job” and schedules it to run.

The job merges the configuration information and downloads it to each media gateway. The administrator can later change the configuration of multiple media gateways simultaneously using a single change to a shared configuration template.

For more information

For more information, see *Provisioning and Installation Manager Configuration*, 14-300286, or *Provisioning and Installation Manager User Reference*. To locate these documents, go to <http://support.avaya.com>. Select **Find Documentation and Downloads by Product Name**, and search for **Integrated Management**.

The Network Configuration Manager

The Avaya Network Configuration Manager allows you to remotely backup, restore media gateways and converged switches, including:

- The G700, G450, G350, G250, G250-BRI, G250-DS1, and G250-DCP Media Gateways, including their media modules
- IG550 Integrated Gateway (TGM550 Telephony Gateway Module only)
- The C360 and C460 converged switches
- The P330 switches

With the Network Configuration Manager, you manage configuration files to configure and maintain the configuration of devices in your VoIP network. The Network Configuration Manager lets you perform the following tasks related to configuration files:

- Copy and edit configuration files for media gateways and network infrastructure switches
- Download a single configuration file to one or multiple devices
- Simultaneously download multiple configuration files to multiple devices
- Compare the content of configuration files for different devices
- Back up and restore configuration files, including scheduled backups

You can choose secure copy protocol (SCP), file transfer protocol (FTP), or trivial file transfer protocol (TFTP) to transfer protocols for downloading, restoring, and backing up configuration files, depending on the devices you are configuring and the capabilities of the customer's PC and LAN. In addition, Network Configuration Manager checks configuration files for device applicability and will not install a configuration file to a device for which the configuration does not apply.

Availability of Network Configuration Manager

To use the Network Configuration Manager, the customer should have Enterprise Network Management, which is an entitlement for Communication Manager Enterprise Edition release 5.2. Enterprise Network Management, which can also be purchased from Avaya, is installed on a customer-provided computer connected to the customer's LAN.

For more information

For more information, see *Avaya Integrated Management Configuration Backup and Restore Manager User Guide*. To locate this document, go to <http://support.avaya.com>. Select **Find Documentation and Downloads by Product Name**, and search for **Integrated Management**.

The Network Region Wizard

The Avaya Network Region Wizard guides you through the steps to configure network regions in your VoIP network and assign the media gateways in your network to those regions. The configuration includes defining:

- Codec sets
- Intra-region transmission parameters
- Inter-region parameters, including call admission control via bandwidth settings

These parameters include settings to support:

- Fax, Teletypewriter device (TTY), and modem calls using pass-through mode or proprietary relay mode
- T.38 fax calls
- 64kbps clear channel for BRI secure telephones and data appliances, including video

Note:

You cannot use the Network Region Wizard to define and assign network regions to data devices such as the C360 switches.

The following features of the Network Region Wizard can make network region configuration much easier and faster than configuration using manual planning and the Communication Manager SAT command line interface.

- Default values that are commonly used for network regions. Any of these values can be modified within the NRW, as necessary. For most networks, the defaults are suitable.
- The Electronic Preinstallation Worksheet — Network Region Wizard (EPW-NRW), a separate Excel spreadsheet which allows network planners or design specialists to complete the configuration ahead of time. You can then simply run the Network Region Wizard, which can automatically load the parameters from the EPW-NRW into Communication Manager.
- A grid tool that allows you to create inter-region and intra-region connections by simply clicking on regions listed on the grid. After you select a source region and then click on any other desired region listed on the grid, the Network Region Wizard automatically creates a connection between the regions using appropriate codec sets and CAC bandwidth limits.
- Automatic creation of indirect connections between regions for which you did not specify direct connections. The Network Region Wizard also creates a table of indirectly connected regions so you can quickly see opportunities for better routing.

The Network Region Wizard allows you to configure up to 250 network regions on an S8400, S8500B, S8500C, S8510, S8710, S8720, or S8730 Server, and up to 50 network regions on an S8300 Server. It is available if the customer has the Standard Management Solutions package of the Integrated Management suite.

Availability of Network Region Wizard

The Network Region Wizard is a part of Communication Manager software running on a primary controller and is accessible from the Web pages interface.

For more information

For more information, see *Network Region Job Aid* and *Network Region Job Aid Workbook*. To locate this document, go to <http://support.avaya.com/avayaiw>.

Secure Access Administration

Avaya Secure Access Administration allows you manage secure access to devices in your network. Secure Access Administration allows you to do the following:

- Administer login names and passwords for Integrated Management users
- Associate roles with each user
- Manage SNMPv3 user passwords and views in branch gateways and converged switches
- Administer CLI users and passwords in branch gateways and converged switches
- Synchronize password changes across all network devices
- Manage SSH Certificates for device identification

Avaya Secure Access Administration supports the following devices:

- G250, G250-BRI, G250-DS1, G250-DCP, G350, G430 or G450 Media Gateways
- IG550 Integrated Gateway
- The C360 converged switches
- P330ML Ethernet switch

Availability of Secure Access Administration

To use Secure Access Administration, the customer should have Enterprise Network Management, which is an entitlement for Communication Manager Enterprise Edition release 5.2. Enterprise Network Management, which can also be purchased from Avaya, is installed on a customer-provided personal computer connected to the customer's LAN.

For more information

For more information on the Secure Access Administration tool, see *Avaya Integrated Management Secure Access Administration User Guide*. To locate these documents, go to <http://support.avaya.com>. Select **Find Documentation and Downloads by Product Name**, and search for **Integrated Management**.

Job Aid: What Provisioning Tools and Wizards Should I Use?

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