Avaya Solution & Interoperability Test Lab

Configuring a Property Management System Data Link on Avaya Communication Manager – Issue 1.0

Abstract

These Application Notes describe the steps required to configure a Property Management System (PMS) data link between an Avaya S8300 Media Server controlling a G700 Media Gateway and a PMS through a terminal server. The PMS data link provides a property management system with the ability to provide hotel/motel management features with communications related functions that are coordinated with Avaya Communication Manager.

1. Introduction

These Application Notes describe the steps needed to replicate the configuration of a PMS data link between Avaya Communication Manager running on an S8300 Media Server with G700 Media Gateway and a PMS through a terminal server, as shown in **Figure 1**. The PMS data link provides a property management system with the ability to provide front office and back office hotel/motel management features with communications related functions that are coordinated with Avaya Communication Manager. The configuration described in these Application Notes uses an Avaya internally developed PMS lab simulator program rather than a third party PMS application. The information provided in this document is also applicable for setting up a PMS data link to a third-party application.

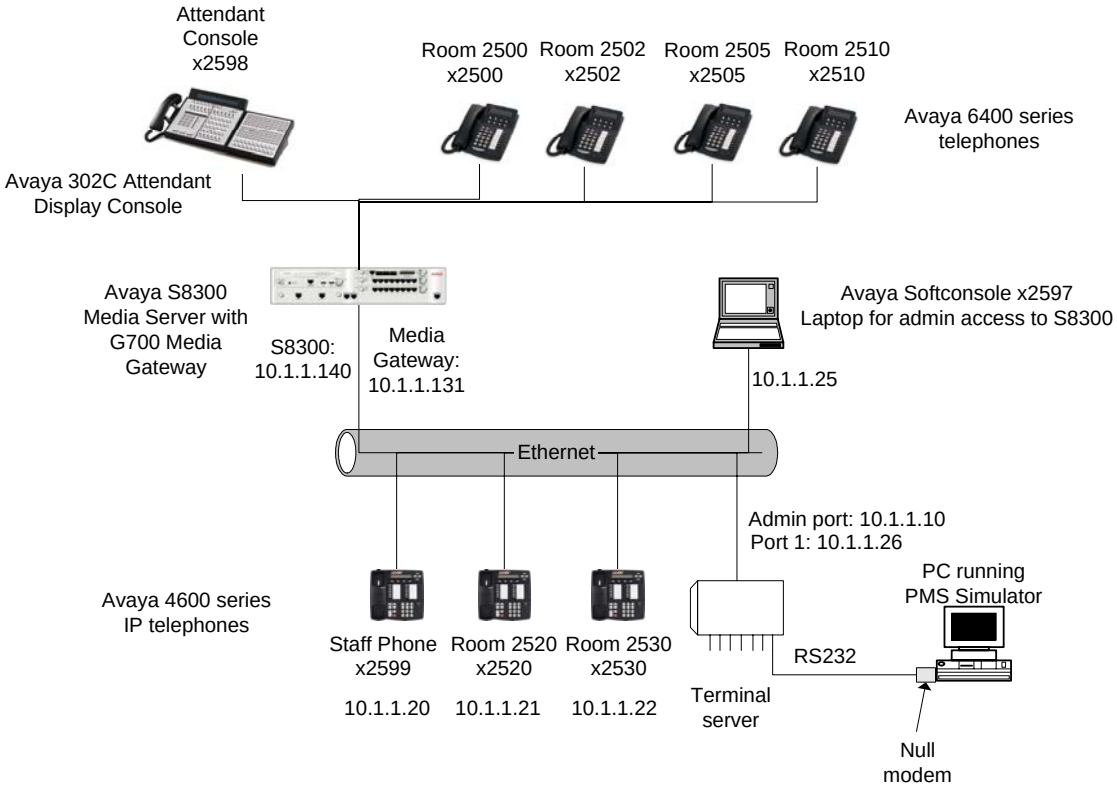


Figure 1: Tested Configuration

Voice messaging and/or call accounting data links to the property management systems are beyond the scope of these Application Notes. Please refer to the GuestWorks® and DEFINITY® Systems Technician Handbook for Hospitality Installations document for information relating to these topics.

2. Equipment and Software Validated

The following equipment and software were used for the configuration:

Equipment	Software
Avaya S8300 Media Server with G700 Media Gateway	Communication Manager 2.1.1
Avaya 4624 IP Telephone	1.82
Avaya 6408D Digital Telephone	-
Avaya 302C Attendant Display Console	-
Avaya Softconsole	1.5
Avaya lab PMS simulator program	3.3
Moxa Async CN2516 Terminal Server	2.26
Laptop for use with Avaya Softconsole and for admin access to the Avaya S8300/G700.	Windows 2000 Professional with Service Pack 4
PC for use with PMS Simulator	Windows 2000 Professional with Service Pack 4

3. Configure Avaya Communication Manager

This section provides instructions for setting up the PMS data link on Avaya Communication Manager assuming it is configured with the appropriate licenses as well. For detailed instructions on how to set up Avaya Communication Manager for Hospitality, please refer to the Avaya GuestWorks® and DEFINITY® Systems Technician Handbook for Hospitality Installations.

Step	Description
1.	From the System Access Terminal (SAT), log in with the appropriate privileges. Verify the *Offer Category* is **B** in the **display system-parameters offer-options** form. If it is not, contact the appropriate support contacts in order to get the necessary options set on site.

```
display system-parameters offer-options

                                    OFFER OPTIONS

               Offer Category: B

               Activate Offer? y
```

Step	Description
2.	Verify *Maximum Concurrent Registered IP eCons* is set to a value greater than 0 and verify **Maximum G700/G350 VAL Sources** is set to a value greater than 0 in page 2 of the **display system-parameters customer-options** form. These parameters are not required for PMS functionality but to enable Avaya Softconsole and gateway announcements respectively. **display system-parameters customer-options** Page 2 of 10 OPTIONAL FEATURES IP PORT CAPACITIES USED Maximum Administered H.323 Trunks: 100 5 Maximum Concurrently Registered IP Stations: 100 0 Maximum Administered Remote Office Trunks: 0 0 Maximum Concurrently Registered Remote Office Stations: 0 0 **Maximum Concurrently Registered IP eCons: 1 1** Maximum Administered SIP Trunks: 100 0 Maximum Number of DS1 Boards with Echo Cancellation: 0 0 Maximum TN2501 VAL Boards: 0 0 **Maximum G700/G350 VAL Sources: 1** 1 (NOTE: You must logoff & login to effect the permission changes.)
3.	Verify *Hospitality (Basic)?* is set to **y**, *Hospitality (G3V3 Enhancements)?* is set to **y**, and *IP Attendant Consoles?* is set to **y** in page 4 of the **display system-parameters customer-options** form. **display system-parameters customer-options** Page 4 of 10 OPTIONAL FEATURES Emergency Access to Attendant? y IP Stations? y Enable 'dadmin' Login? y Internet Protocol (IP) PNC? n Enhanced Conferencing? n ISDN Feature Plus? n Enhanced EC500? n ISDN Network Call Redirection? n Enterprise Wide Licensing? n ISDN-BRI Trunks? n Extended Cvg/Fwd Admin? n ISDN-PRI? y External Device Alarm Admin? n Local Spare Processor? n Five Port Networks Max Per MCC? n Malicious Call Trace? n Flexible Billing? n Media Encryption Over IP? n Forced Entry of Account Codes? n Mode Code for Centralized Voice Mail? n Global Call Classification? n **Hospitality (Basic)? y** Multifrequency Signaling? y **Hospitality (G3V3 Enhancements)? y** Multimedia Appl. Server Interface (MASI)? n IP Trunks? y Multimedia Call Handling (Basic)? n Multimedia Call Handling (Enhanced)? n **IP Attendant Consoles? y** (NOTE: You must logoff & login to effect the permission changes.)

Step	Description
4.	Verify *IP_eCons* is set to a value greater than 0 in page 9 of the **display system-parameters customer-options** form. This parameter is not required for PMS functionality but to enable Avaya Softconsole.

```
display system-parameters customer-options                    Page   9 of  10
                    MAXIMUM IP REGISTRATIONS BY PRODUCT ID

Product ID  Rel. Limit          Used
IP_API_A       : 0              0
IP_API_B       : 0              0
IP_API_C       : 0              0
IP_Agent       : 1              0
IP_Phone       : 100            0
IP_ROMax       : 1              0
IP_Soft        : 2              0
IP_eCons       : 1              0
               : 0              0
               : 0              0
               : 0              0
               : 0              0
               : 0              0
               : 0              0
               : 0              0


        (NOTE: You must logoff & login to effect the permission changes.)
```

	Configure the PMS data link
5.	Add the IP address assigned to the terminal server port connected to the PMS Simulator PC. Set *terminalserver* to **10.1.1.26** in the **change node-names ip** form. Make a note of the IP address used for the terminal server port, as this information will be required during the terminal server port setup.

```
change node-names ip                                          Page   1 of   1
                                  IP NODE NAMES
    Name              IP Address          Name              IP Address
default             0  .0  .0  .0                            .   .   .
loc1clan            10 .1  .1  .10                           .   .   .
procr               10 .1  .1  .140                          .   .   .
terminalserver      10 .1  .1  .26                           .   .   .
```

Step	Description
6.	Add the PMS service using the **change ip-services** form. Set *Service Type* to **PMS**, *Local Node* to **procr**, *Remote Node* to **terminalserver** and *Remote Port* to **5103**, the port value recommended for PMS. Make a note of the Remote Port number used, as this information will be required during the terminal server port setup. **change ip-services** Page 1 of 2 IP SERVICES Service Type / Enabled / Local Node / Local Port / Remote Node / Remote Port **PMS** / **procr** / 0 / **terminalserver** / **5103**
7.	Set *Message Waiting Configuration* to **act-pms**, *Controlled Restrictions Configuration* to **act-pms**, *Housekeeper Information Configuration* to **act-pms**, *PMS Endpoint* to **PMS**, *PMS Protocol Mode* to **transparent**, *Seconds before PMS Link Idle Timeout* to **20**, *Milliseconds before PMS Link Acknowledgement Timeout* to **200**, and *PMS Link Maximum Retransmission Requests* to **3** in page 1 of the **change system-parameters hospitality** form. Make a note of the values used for the *PMS Protocol Mode*, *Seconds before PMS Link Idle Timeout*, *Milliseconds before PMS Link Acknowledgement Timeout*, and *PMS Link Maximum Retransmission Requests* fields, as the values will be required during the PMS Simulator configuration. **change system-parameters hospitality** Page 1 of 3 HOSPITALITY **Message Waiting Configuration: act-pms** **Controlled Restrictions Configuration: act-pms** **Housekeeper Information Configuration: act-pms** Number of Housekeeper ID Digits: 0 PMS Log Endpoint: Journal/Schedule Endpoint: Client Room Coverage Path Configuration: act-nopms Default Coverage Path for Client Rooms: Forward PMS Messages to Intuity Lodging? n PMS LINK PARAMETERS **PMS Endpoint: PMS** **PMS Protocol Mode: transparent** ASCII mode? n **Seconds before PMS Link Idle Timeout: 20** **Milliseconds before PMS Link Acknowledgement Timeout: 200** PMS Link Maximum Retransmissions: 3 **PMS Link Maximum Retransmission Requests: 3** Take Down Link for Lost Messages? Y

Step	Description
	The remaining configuration screen shots, while not required for setting up the PMS data link, are included to document related aspects of the tested configuration.
8.	**change dialplan analysis** Page 1 of 12 DIAL PLAN ANALYSIS TABLE Percent Full: 3 Dialed String / Total Length / Call Type (Dialed String / Total Length / Call Type / Dialed String / Total Length / Call Type) 1 3 dac 2 4 ext 6 4 ext 8 1 fac 9 1 fac ***2 2 fac** ***3 2 fac** ***40 3 fac** ***41 3 fac** ***42 3 fac** ***50 3 fac** ***51 3 fac** ***52 3 fac** ***6 2 fac** *7 2 fac
9.	**change feature-access-codes** Page 1 of 5 FEATURE ACCESS CODE (FAC) Abbreviated Dialing List1 Access Code: Abbreviated Dialing List2 Access Code: Abbreviated Dialing List3 Access Code: Abbreviated Dial - Prgm Group List Access Code: Announcement Access Code: ***2** Answer Back Access Code: Attendant Access Code: Auto Alternate Routing (AAR) Access Code: 8 Auto Route Selection (ARS) - Access Code 1: 9 Access Code 2: Automatic Callback Activation: Deactivation: Call Forwarding Activation Busy/DA: All: Deactivation: Call Park Access Code: Call Pickup Access Code: CAS Remote Hold/Answer Hold-Unhold Access Code: CDR Account Code Access Code: Change COR Access Code: Change Coverage Access Code: Contact Closure Open Code: Close Code: Contact Closure Pulse Code:

Step	Description
10.	**change feature-access-codes** Page 5 of 5 FEATURE ACCESS CODE (FAC) Hospitality Features **Automatic Wakeup Call Access Code: *3** **Housekeeping Status (Client Room) Access Code: *40** **Housekeeping Status (Client Room) Access Code: *41** **Housekeeping Status (Client Room) Access Code: *42** Housekeeping Status (Client Room) Access Code: Housekeeping Status (Client Room) Access Code: Housekeeping Status (Client Room) Access Code: **Housekeeping Status (Station) Access Code: *50** **Housekeeping Status (Station) Access Code: *51** **Housekeeping Status (Station) Access Code: *52** Housekeeping Status (Station) Access Code: **Verify Wakeup Announcement Access Code: *6** Voice Do Not Disturb Access Code: *7
11.	**change system-parameters hospitality** Page 3 of 3 ROOM STATES HOSPITALITY **Definition for Rooms in State 1: Ready for Inspection** **Definition for Rooms in State 2: Needs Cleaning** **Definition for Rooms in State 3: Housekeeper in Room** Definition for Rooms in State 4: Rooms in state 4 Definition for Rooms in State 5: Rooms in state 5 Definition for Rooms in State 6: Rooms in state 6 HOSPITALITY FEATURES Suite Check-in? n
12.	**change cos** Page 1 of 1 CLASS OF SERVICE 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 **Auto Callback** y **n** y y n n n n n n n n n n n **Call Fwd-All Calls** y **n** y y n n n n n n n n n n n Data Privacy n y n n n n n n n n n n n n y **Priority Calling** y **n** **y** y n n n n n n n n n n n **Console Permissions** y n **y** y n n n n n n n n n n n Off-hook Alert n y n n n n n n n n n n n n n **Client Room** n **y** n n n n n n n n n n n n n **Restrict Call Fwd-Off Net** y **y** y y y y y y y y y y y y y **Call Forwarding Busy/DA** y n **y** y n n n n n n n n n n n Personal Station Access (PSA) n n n n n n n n n n n n n n n Extended Forwarding All n n n n n n n n n n n n n n n Extended Forwarding B/DA n n n n n n n n n n n n n n n Trk-to-Trk Transfer Override n n n n n n n n n n n n n n n QSIG Call Offer Originations n n n n n n n n n n n n n n n Contact Closure Activation n n n n n n n n n n n n n n n

Step	Description
13.	**change cor 1** Page 1 of 4 CLASS OF RESTRICTION COR Number: 1 **COR Description: GUEST ROOMS** **FRL: 7** APLT? y Can Be Service Observed? n **Calling Party Restriction: none** Can Be A Service Observer? n Called Party Restriction: none Partitioned Group Number: 1 Forced Entry of Account Codes? n Priority Queuing? n Direct Agent Calling? n **Restriction Override: all** Facility Access Trunk Test? n Restricted Call List? n Can Change Coverage? n Access to MCT? y Fully Restricted Service? n Group II Category For MFC: 7 Send ANI for MFE? n MF ANI Prefix: Automatic Charge Display? n Hear System Music on Hold? y PASTE (Display PBX Data on Phone)? n Can Be Picked Up By Directed Call Pickup? n Can Use Directed Call Pickup? n Group Controlled Restriction: inactive
14.	**change cor 2** Page 1 of 4 CLASS OF RESTRICTION COR Number: 2 **COR Description: FRONT DESK, ATTENDANT, HOUSEKEEPING** **FRL: 7** APLT? y Can Be Service Observed? n Calling Party Restriction: none Can Be A Service Observer? n Called Party Restriction: none Partitioned Group Number: 1 Forced Entry of Account Codes? n Priority Queuing? n Direct Agent Calling? n **Restriction Override: all** Facility Access Trunk Test? n Restricted Call List? n Can Change Coverage? n Access to MCT? y Fully Restricted Service? n Group II Category For MFC: 7 Send ANI for MFE? n MF ANI Prefix: Automatic Charge Display? n Hear System Music on Hold? y PASTE (Display PBX Data on Phone)? n Can Be Picked Up By Directed Call Pickup? n Can Use Directed Call Pickup? n Group Controlled Restriction: inactive

Step	Description
15.	

```
add attendant 1                                          Page   1 of   4
                          ATTENDANT CONSOLE 1

         Type: console          Name: Attendant
    Extension: 2598           Group: 1               Auto Answer: none
 Console Type: principal         TN: 1               Data Module? n
         Port: 001V202          COR: 2          Disp Client Redir? y
                                COS: 0           Display Language: english
                                                 H.320 Conversion? n

DIRECT TRUNK GROUP SELECT BUTTON ASSIGNMENTS (Trunk Access Codes)
    Local Remote           Local Remote             Local Remote
 1:                     5:                       9:
 2:                     6:                      10:
 3:                     7:                      11:
 4:                     8:                      12:

HUNDREDS SELECT BUTTON ASSIGNMENTS
 1:           5:            9:           13:           17:
 2:           6:           10:           14:           18:
 3:           7:           11:           15:           19:
 4:           8:           12:           16:           20:
```

16.	

```
add attendant 1                                          Page   3 of   4
                              ATTENDANT CONSOLE

FEATURE BUTTON ASSIGNMENTS

 1: split                              13: auto-wkup
 2:                                    14:
 3: mwn-act                            15:
 4: mwn-deact                          16: ext-dn-dst
 5:                                    17: crss-alert
 6: hold                               18:
 7: check-in                           19: forced-rel
 8: check-out                          20: pms-alarm
 9: occ-rooms                          21:
10: maid-stat                          22:
11: directory                          23: night-serv
12: trk-id                             24: pos-busy
```

Step	Description
17.	**add attendant 2** Page 1 of 4 ATTENDANT CONSOLE 2 **Type: 302** **Name: Front Desk** **Extension: 2597** Group: 1 Auto Answer: none **Console Type: day/night** TN: 1 Data Module? n **Port: ip** **COR: 2** Disp Client Redir? n Security Code: COS: 1 Display Language: english H.320 Conversion? n DIRECT TRUNK GROUP SELECT BUTTON ASSIGNMENTS (Trunk Access Codes) Local Remote Local Remote Local Remote 1: 5: 9: 2: 6: 10: 3: 7: 11: 4: 8: 12: HUNDREDS SELECT BUTTON ASSIGNMENTS **1: 25** **5: 29** 9: 13: 17: **2: 26** 6: 10: 14: 18: **3: 27** 7: 11: 15: 19: **4: 28** 8: 12: 16: 20:
18.	**add attendant 2** Page 3 of 4 ATTENDANT CONSOLE FEATURE BUTTON ASSIGNMENTS 1: split **13: auto-wkup** 2: 14: **3: mwn-act** 15: **4: mwn-deact** 16: ext-dn-dst 5: 17: crss-alert 6: hold 18: **7: check-in** 19: forced-rel **8: check-out** 20: **pms-alarm** **9: occ-rooms** 21: **10: maid-stat** 22: 11: directory 23: night-serv 12: trk-id 24: pos-busy

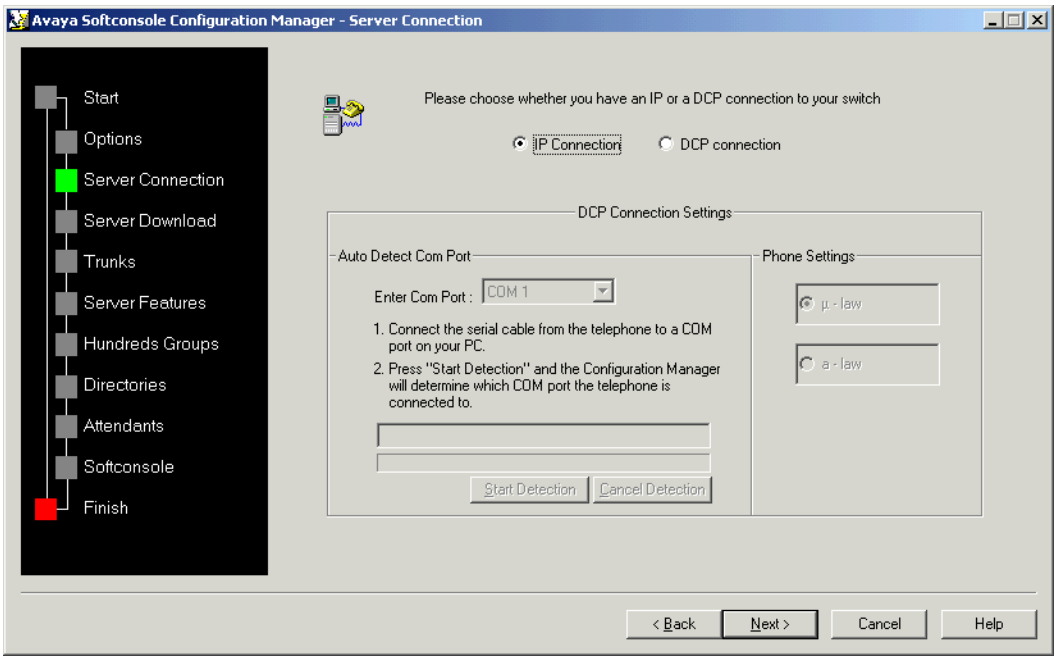
Step	Description
19.	**change system-parameters features** Page 2 of 14 FEATURE-RELATED SYSTEM PARAMETERS LEAVE WORD CALLING PARAMETERS Maximum Number of Messages Per Station: 10 Maximum Number of External Calls Logged Per Station: 0 Message Waiting Indication for External Calls? n Stations with System-wide Retrieval Permission (enter extension) **1: 2598** 3: 5: 7: 9: **2: 2597** 4: 6: 8: 10: TTI/PSA PARAMETERS MOVED TO PAGE 3 Prohibit Bridging Onto Calls With Data Privacy? n Enhanced Abbreviated Dial Length (3 or 4): 3 Record All Submission Failures in History Log? y Record PMS/AD Transactions in History Log? n Record IP Registrations in History Log? n
20.	**add station 2500** Page 1 of 5 STATION **Extension: 2500** Lock Messages? n BCC: 0 **Type: 6416D+** Security Code: TN: 1 **Port: 001V203** Coverage Path 1: COR: 1 Name: Coverage Path 2: COS: 1 Hunt-to Station: STATION OPTIONS Loss Group: 2 Personalized Ringing Pattern: 1 Data Option: none Message Lamp Ext: 2500 Speakerphone: 2-way Mute Button Enabled? y Display Language: english Expansion Module? n Media Complex Ext: IP SoftPhone? n
21.	**add station 2520** Page 1 of 5 STATION **Extension: 2520** Lock Messages? n BCC: 0 **Type: 4624** Security Code: TN: 1 Port: IP Coverage Path 1: COR: 1 Name: Coverage Path 2: COS: 1 Hunt-to Station: STATION OPTIONS Loss Group: 19 Personalized Ringing Pattern: 1 Message Lamp Ext: 2520 Speakerphone: 2-way Mute Button Enabled? y Display Language: english Expansion Module? n Survivable GK Node Name: Media Complex Ext: IP SoftPhone? n

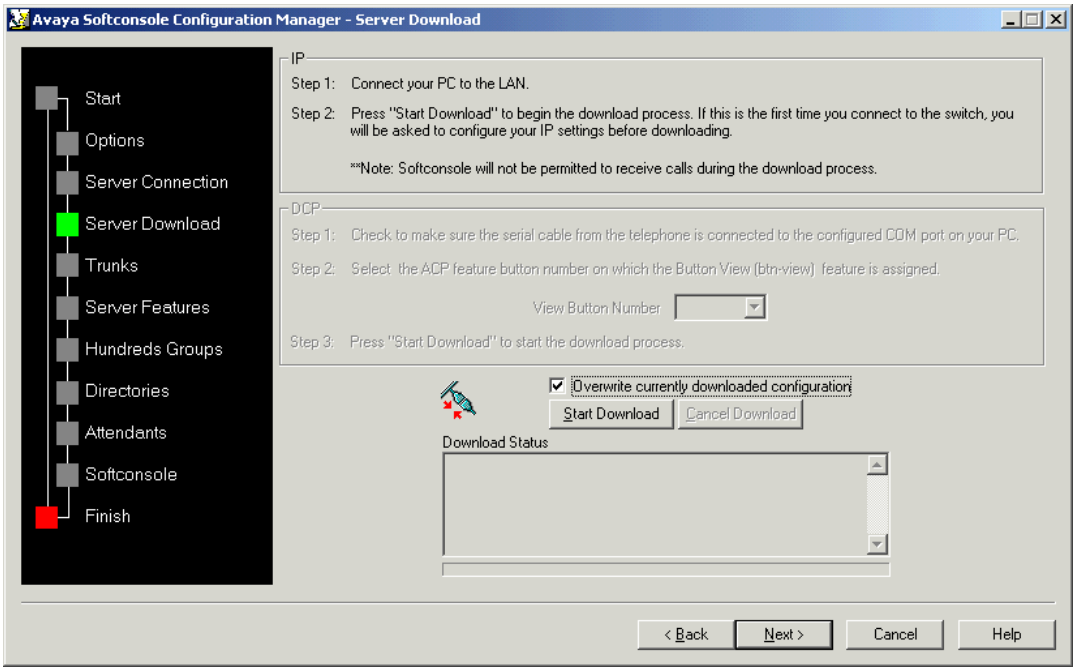
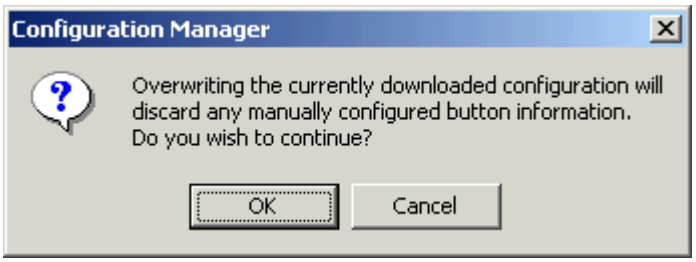
Step	Description
22.	Repeat step 20 for guest room stations 2502, 2505, and 2510 and repeat step 21 for guest room station 2530.
23.	**add station 2599** Page 1 of 5 STATION **Extension: 2599** Lock Messages? n BCC: 0 **Type: 4624** Security Code: TN: 1 Port: IP Coverage Path 1: COR: 1 **Name: STAFF** Coverage Path 2: **COS: 2** Hunt-to Station: STATION OPTIONS Loss Group: 19 Personalized Ringing Pattern: 1 Message Lamp Ext: 2599 Speakerphone: 2-way Mute Button Enabled? y Display Language: english Expansion Module? n Survivable GK Node Name: Media Complex Ext: IP SoftPhone? n
24.	**change media-gateway 1** Page 1 of 1 MEDIA GATEWAY Number: 1 IP Address: 10 .1 .1 .131 Type: g700 FW Version/HW Vintage: 22 .16 .0 /0 Name: G700GW MAC Address: 00:04:0d:02:08:75 Serial No: 02DR06751838 Encrypt Link? n Network Region: 1 Location: 1 Registered? y Controller IP Address: 10 .1 .1 .140 Site Data: Slot Module Type Name V1: S8300 ICC MM V2: MM712 DCP MM V3: MM710 DS1 MM V4: MM711 ANA MM V8: V9: **gateway-announcements** ANN VMM Announcement board must also be enabled; use 'enable announcement-board'
25.	Enable the announcement board by typing **enable announcement-board 1v9** from the SAT.

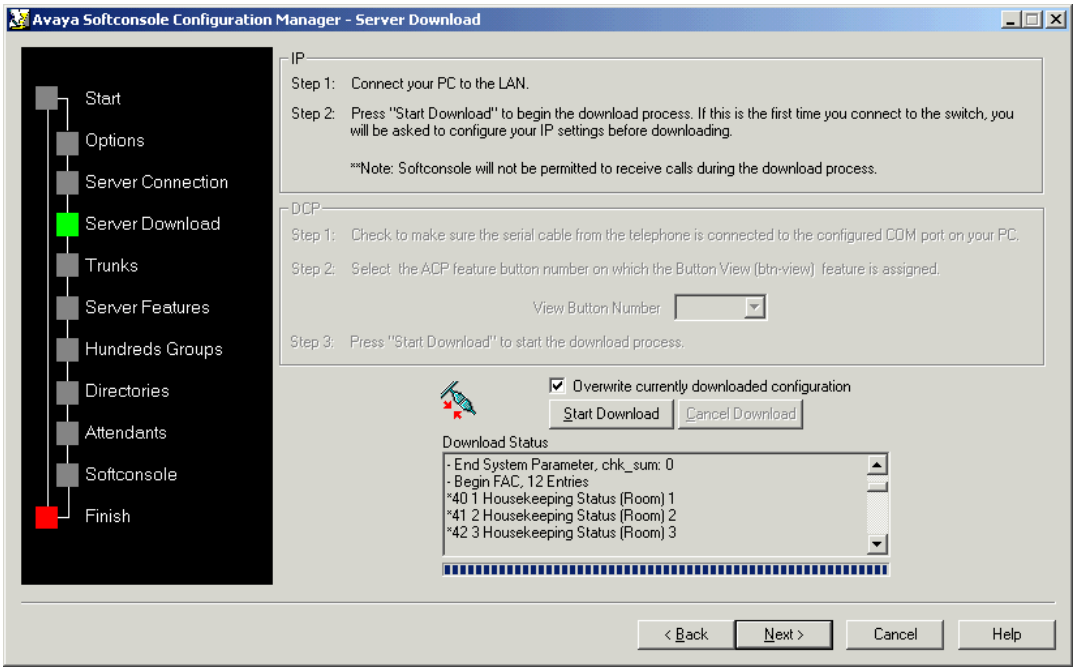
Step	Description
26.	**change announcements** Page 1 of 16 ANNOUNCEMENTS/AUDIO SOURCES Ann. No. Ext. Type COR TN Name Q QLen Pr Rt Port 1 **2999** **integrated** 1 1 **Wakeup** n NA **n 64 001V9** 2 1 1 n 3 1 1 n 4 1 1 n 5 1 1 n 6 1 1 n 7 1 1 n 8 1 1 n 9 1 1 n 10 1 1 n 11 1 1 n 12 1 1 n 13 1 1 n 14 1 1 n 15 1 1 n 16 1 1 n
27.	**change system-parameters hospitality** Page 2 of 3 HOSPITALITY Dual Wakeups? n Daily Wakeup? n VIP Wakeup? n Room Activated Wakeup With Tones? n Time of Scheduled Wakeup Activity Report: Time of Scheduled Wakeup Summary Report: Time of Scheduled Emergency Access Summary Report: **Announcement Type: integrated** **Integrated Announcement Extension: 2999** Length of Time to Remain Connected to Announcement: 30 Extension to Receive Failed Wakeup LWC Messages: Routing Extension on Unavailable Voice Synthesis: Display Room Information in Call Display? y Automatic Selection of DID Numbers? n Custom Selection of VIP DID Numbers? n Number of Digits from PMS: PMS Sends Prefix? n Number of Digits in PMS Coverage Path: 3 Digit to Insert/Delete:

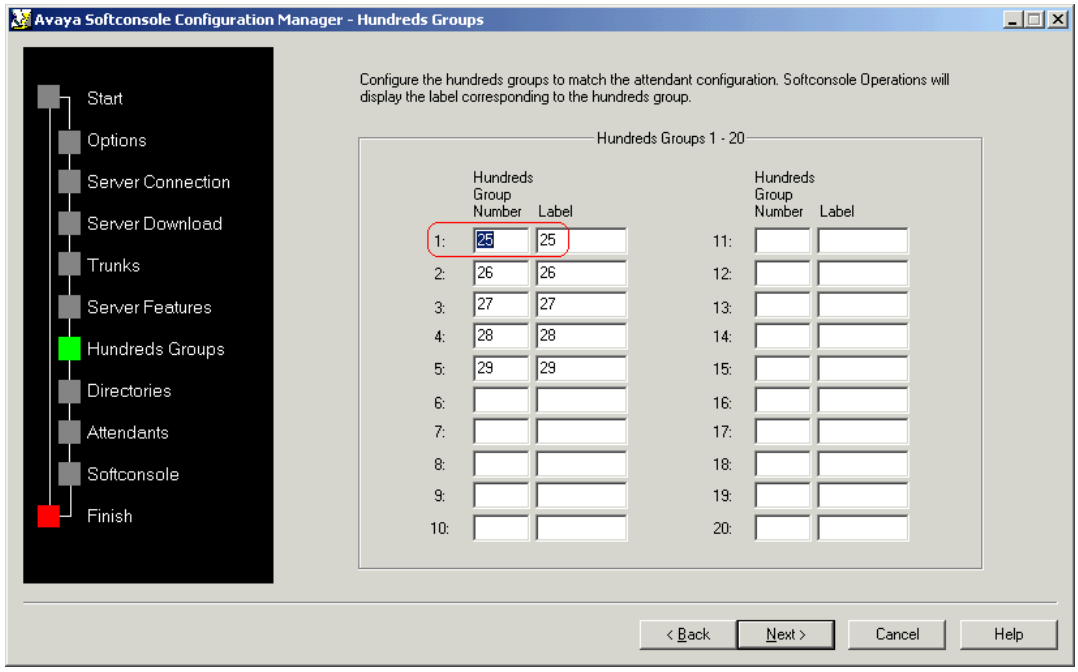
4. Configure the Avaya Softconsole

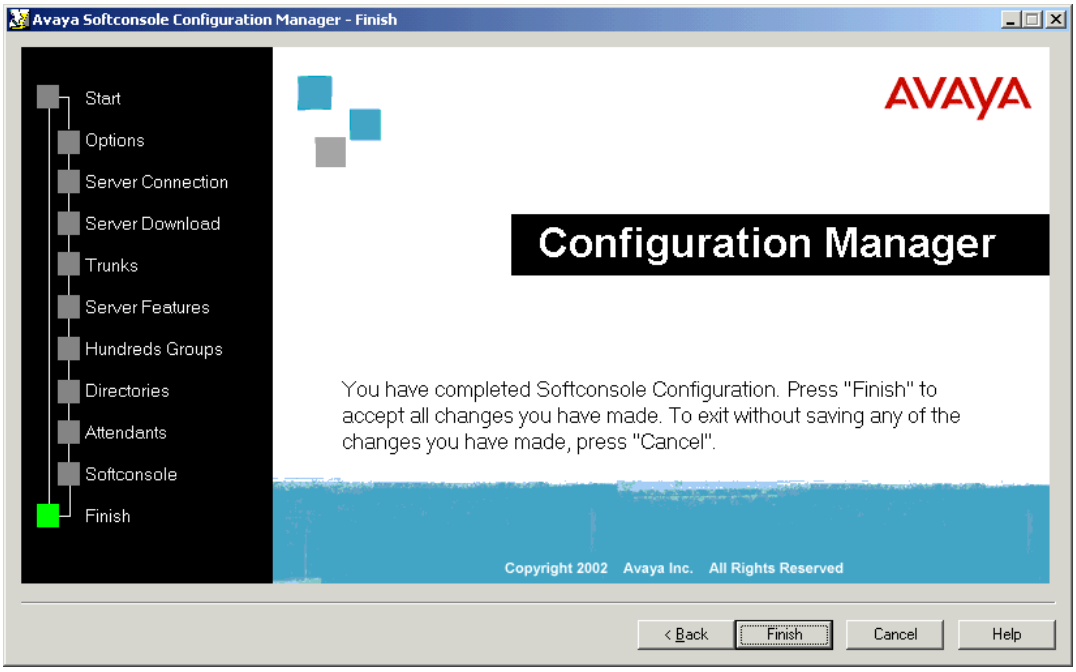
This section provides instructions for configuring the Avaya Softconsole for use in the reference configuration. Please refer to the Avaya Softconsole Installation and Implementation Guide for all other information relating to Avaya Softconsole.

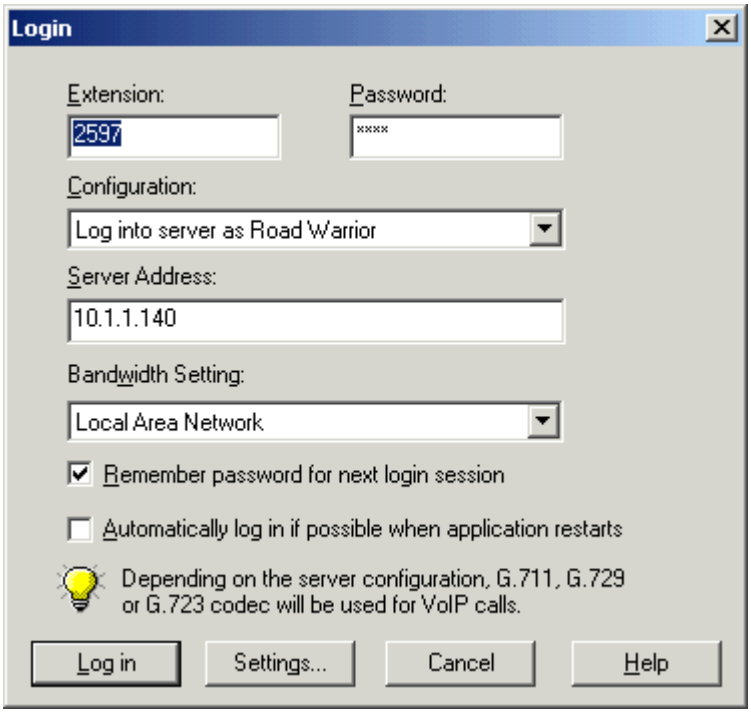
Step	Description
1.	Log into the Softconsole PC using administrative privileges.
	Configure the Avaya Softconsole
2.	Go to **Start** → **Programs** → **Avaya** → **Avaya Softconsole** → **Configuration Manager** to launch the Avaya Softconsole Configuration Manager.
3.	In the Softconsole Configuration Manager Login window that appears, enter the password defined for the Configuration Manager during Avaya Softconsole installation and click **OK**.
4.	In the Avaya Softconsole Configuration Manager – Start window that appears, click **Next**.
5.	In the Avaya Softconsole Configuration Manager – Options window that appears, click **Next**.
6.	In the Avaya Softconsole Configuration Manager – Server Connection window that appears, select **IP Connection** and click **Next**. 

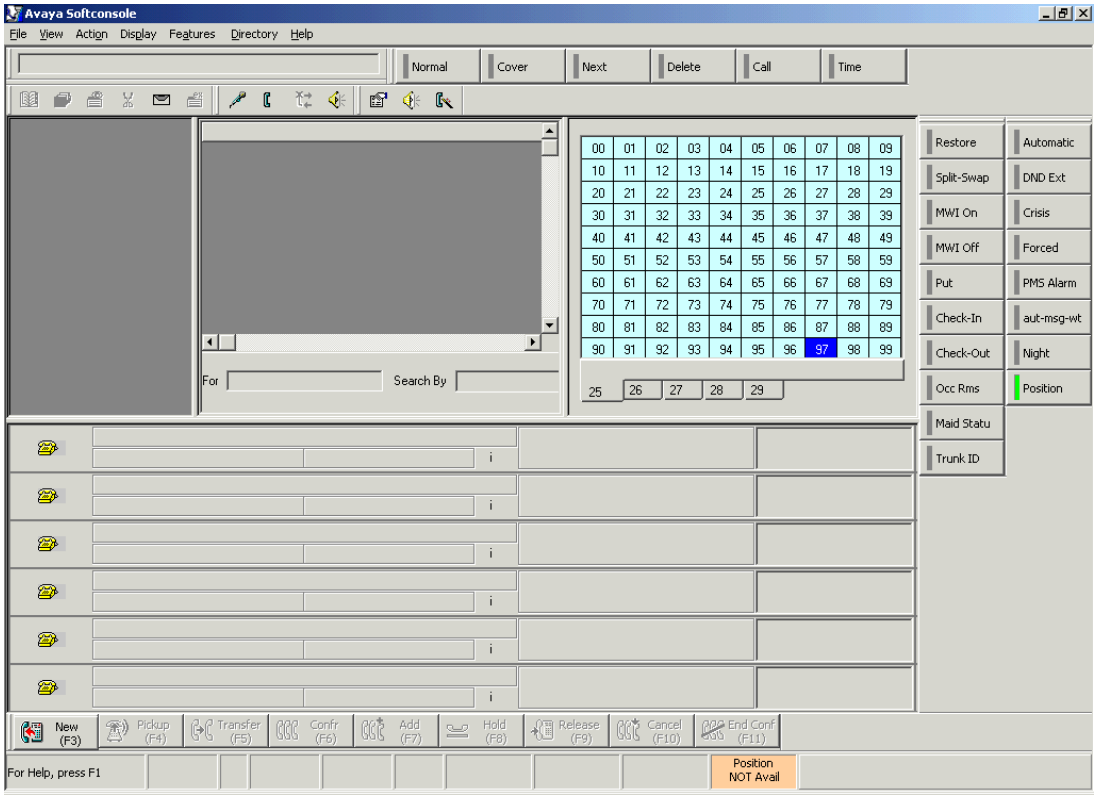
Step	Description
7.	In the Avaya Softconsole Configuration Manager – Server Download window that appears, click **Start Download** and click **Next**. 
8.	If the following Configuration Manager popup appears, click **OK** if appropriate. 

Step	Description
9.	Once the Server Download is complete, click **Next**. 
10.	In the Avaya Softconsole Configuration Manager – Trunks window that appears, click **Next**.
11.	In the Avaya Softconsole Configuration Manager – Server Features window that appears, click **Next**.

Step	Description
12.	In the Avaya Softconsole Configuration Manager – Hundreds Groups window that appears set *Hundreds Group Number* to the values set in Section 3, step 18, i.e., **25, 26, 27, 28, 29** and click **Next**. 
13.	In the Avaya Softconsole Configuration Manager – Directories window that appears, click **Next**.
14.	In the Avaya Softconsole Configuration Manager – Attendants window that appears, click **Next**.
15.	In the Avaya Softconsole Configuration Manager – Softconsole window that appears, click **Next**.

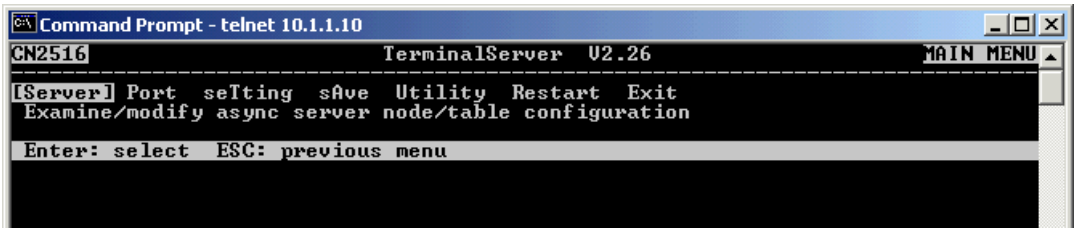
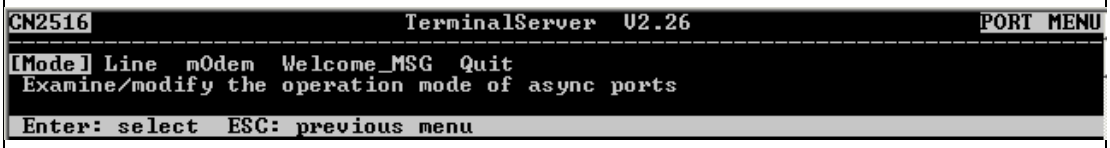
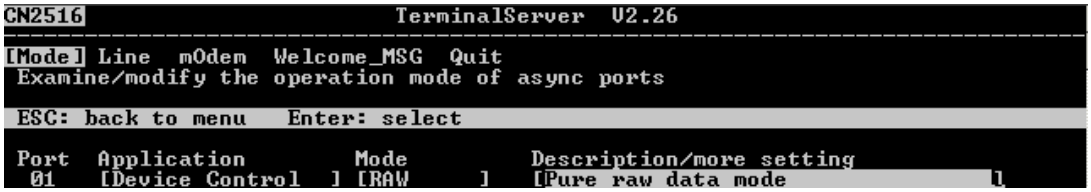
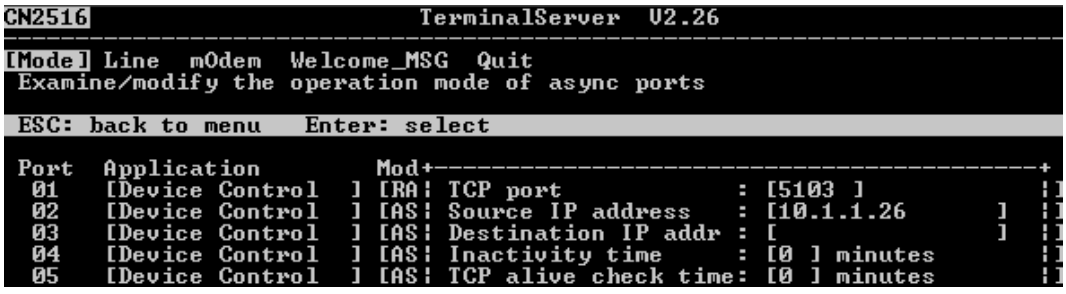
Step	Description
16.	In the Avaya Softconsole Configuration Manager – Finish window that appears, click **Finish**. 

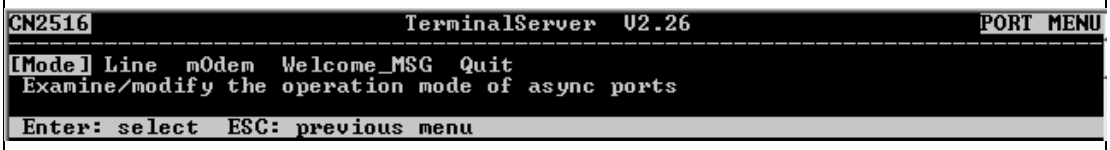
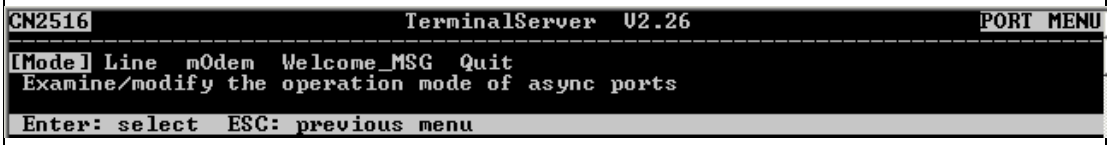
Step	Description
	Launch Avaya Softconsole
17.	Go to **Start** → **Programs** → **Avaya** → **Avaya Softconsole** → **Avaya Softconsole** to launch Avaya Softconsole.
18.	In the Login window that appears, set *Extension* to **2597**, *Password* to the password defined for the attendant console, *Configuration* to **Log into server as Road Warrior**, *Server Address* to **10.1.1.140**, *Bandwidth Setting* to **Local Area Network** and click **Log in**. 

Step	Description
19.	The Avaya Softconsole window appears as follows. 

5. Configure the Terminal Server

This section provides instructions for setting up the terminal server.

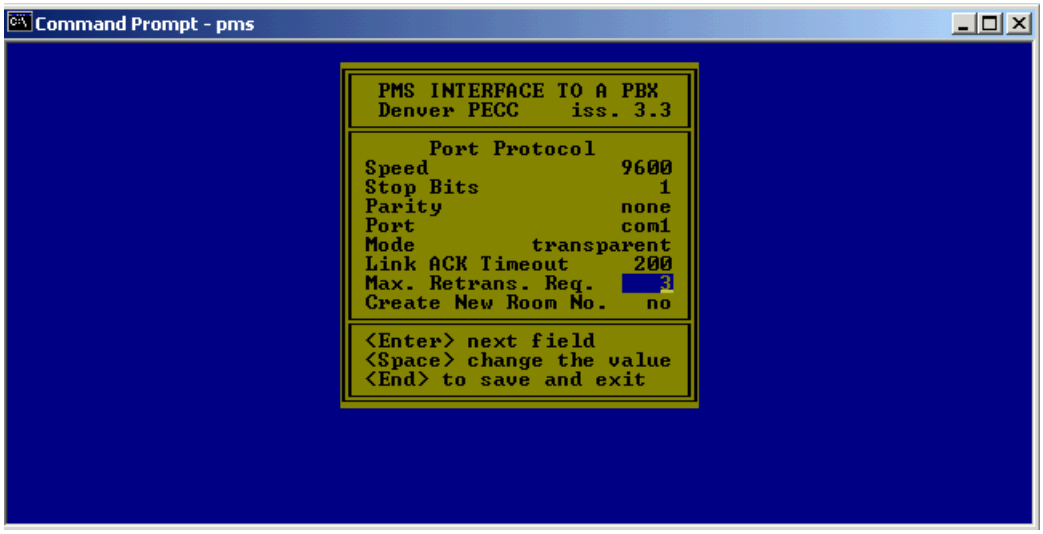
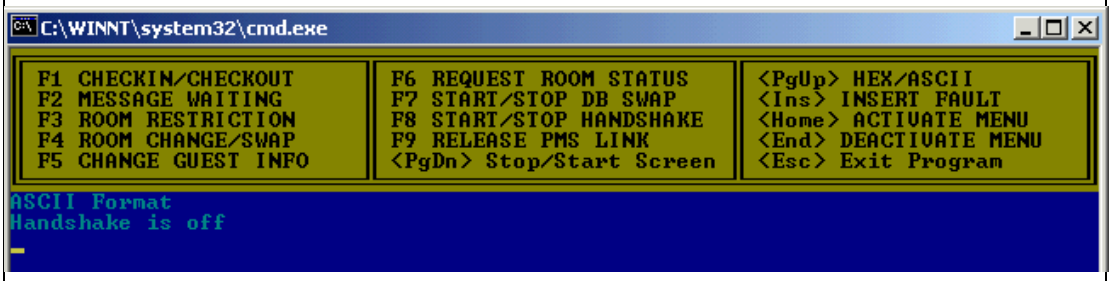
Step	Description
1.	Telnet to the Async CN2516 terminal server and log in using the appropriate administrative credentials. In the MAIN MENU that appears, tab to **Port** and press **Enter**. 
2.	In the PORT MENU that appears, select **Mode** and press **Enter**. 
3.	In the Mode sub-menu that appears, set *Application* to **Device Control** and *Mode* to **RAW** for Port 01. Next, tab to the *Description/more setting* field for Port 01 and press **Enter**. 
4.	In the Description/more setting sub-menu that appears, set *TCP port* to the value set for the port in Section 3, step 6, **5103**, *Source IP address* to the value set for the port in Section 3, step 5, **10.1.1.26**, press **ESC** to exit the Description/more setting sub-menu, and press **ESC** to exit the Mode sub-menu. 

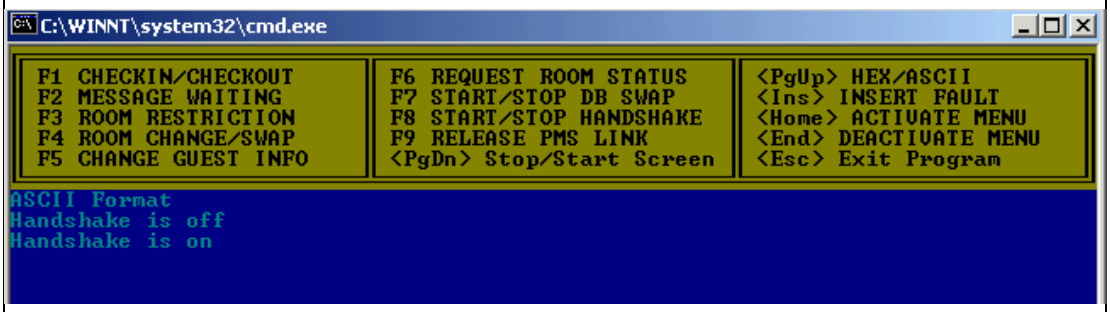
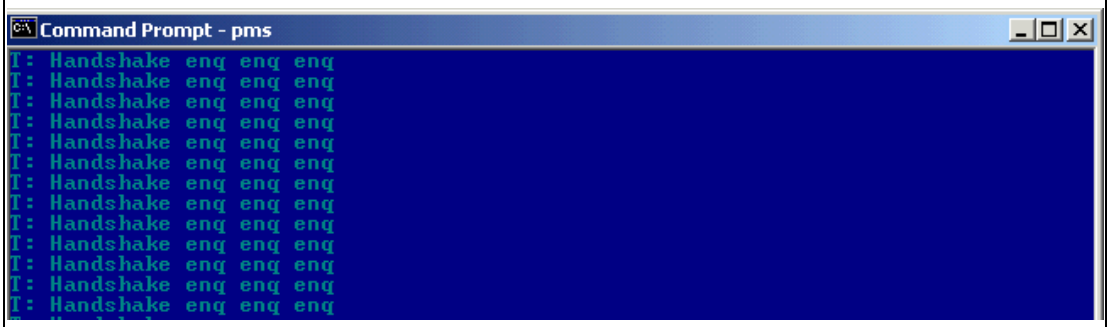
Step	Description
5.	In the PORT MENU that appears, select **Line** and press **Enter**. 
6.	In the Line sub-menu that appears, set *Speed* to **9600**, *Bits* to **8**, *Stop* to **1**, *Parity* to **none**, *FIFO* to **yes**, *RTS/CTS* to **no**, *XON/XOFF* to **no**, *Discon. ctrl* to **DSR-off** and press **ESC** to exit the Line sub-menu.
7.	In the PORT MENU that appears, press **ESC** to return to the MAIN MENU. 
8.	In the MAIN MENU that appears, select **sAve** to save the configuration, then **Restart** to restart the terminal server. This completes configuration of the terminal server.

6. Bring up the PMS Data Link

This section provides instructions for bringing up the PMS data link to Avaya Communication Manager through the PC communications port connected to Port 01 of the terminal server, assuming the user has access to either a PMS or a PMS Simulator.

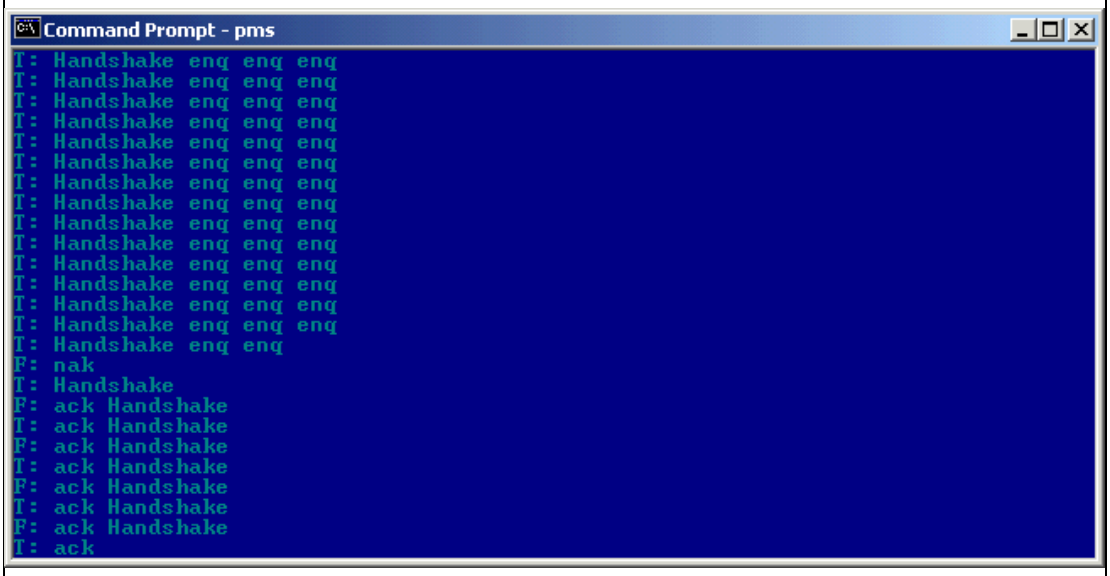
Step	Description
1.	Log into the PMS simulator PC using administrative privileges.
2.	Go to **Start** → **Run**. In the Run window that appears, type **cmd** and click **OK**.
3.	In the Command Prompt window that appears, change directory to the directory containing the PMS simulator program, e.g., **cd \pms**.
	Configure Port Protocols settings for PMS simulator
4.	In the PMS simulator program directory, launch the PMS simulator, e.g., type **pms** at the prompt

Step	Description
5.	In the command prompt window that appears with the PMS simulator Port Protocol settings, set *Speed* to **9600**, *Stop Bits* to **1**, *Parity* to **none**, *Port* to the communications port being used, e.g., **com1**, *Mode* to **transparent**, *Link ACK Timeout* to **200**, *Max. Retrans. Req*. to **3**, and press **End** to save and exit from the Port Protocols settings screen.  **NOTE**: The settings for *Mode*, *Link ACK Timeo*ut, and *Max. Retrans. Req*. must match the settings defined in Avaya Communication Manager's **change system-parameters hospitality** form in Section 3, step 7.
	Bring up the PMS data link on the PMS simulator
6.	The command prompt window will next display a table of supported PMS simulator commands. Under the table of commands, the window will display 'Handshake is off', press **F8** to start handshaking. 

Step	Description
7.	After the message 'Handshake is on' appears, press **PgDn** to begin displaying messages to the window. 
8.	The PMS simulator will then display "**T: Handshake enq enq enq**" while it waits for the PMS data link to be started on Avaya Communication Manager. Leave this command prompt window up to monitor events. 
	Determine the PMS data link status on Avaya Communication Manager
9.	From the SAT command line, type **status pms-link** to determine the status of the PMS data link on Avaya Communication Manager. **status pms-link** PMS LINK STATUS Physical Link State: up Protocol State: up Number of Retries: no Maintenance Busy? no

Step	Description
	Bring up the PMS data link on Avaya Communication Manager, if necessary

10.	If the PMS link is down, type **release pms-link** to bring up the PMS data link.
	
	`release pms-link`
	
	`COMMAND RESULTS`
	
	`Port Maintenance Name Alt. Name Result Error Code`
	
	`PMS-LINK PASS`
	
	`Command successfully completed`

	Verify the PMS data link is up on the PMS simulator
11.	From the PMS simulator command prompt window verify the "**T: Handshake enq enq enq**" messages are replaced with "**T: ack Handshake**" messages once the PMS data link comes up between the PMS simulator and Avaya Communication Manager. 

Step	Description
	Verify the PMS data link is up on Avaya Communication Manager
12.	From the SAT command line, type **status pms-link** to verify the PMS data link is up on Avaya Communication Manager.

```
status pms-link
                              PMS LINK STATUS

        Physical Link State: up
             Protocol State: up
          Number of Retries: no
           Maintenance Busy? no
```

7. Verification Steps

The following steps can be used to verify system operation after a field installation:

- Verify the Offer Category, Hospitality options, node names, IP services and PMS link parameters are set in Avaya Communication Manager (see Section 3).

- Verify the TCP port and IP address of the Terminal Server port connected to the PMS simulator PC matches the port and IP address defined in Avaya Communication Manager (see section 5).

- Verify the PMS Port protocol settings defined in the PMS Simulator matches the settings defined in Avaya Communication Manager (see section 6).

- Bring up the PMS data link on Avaya Communication Manager and the PMS Simulator PC and verify the link is up (see Section 6).

- Perform a room check-in using the PMS Simulator and verify the room extension status information is updated accordingly.

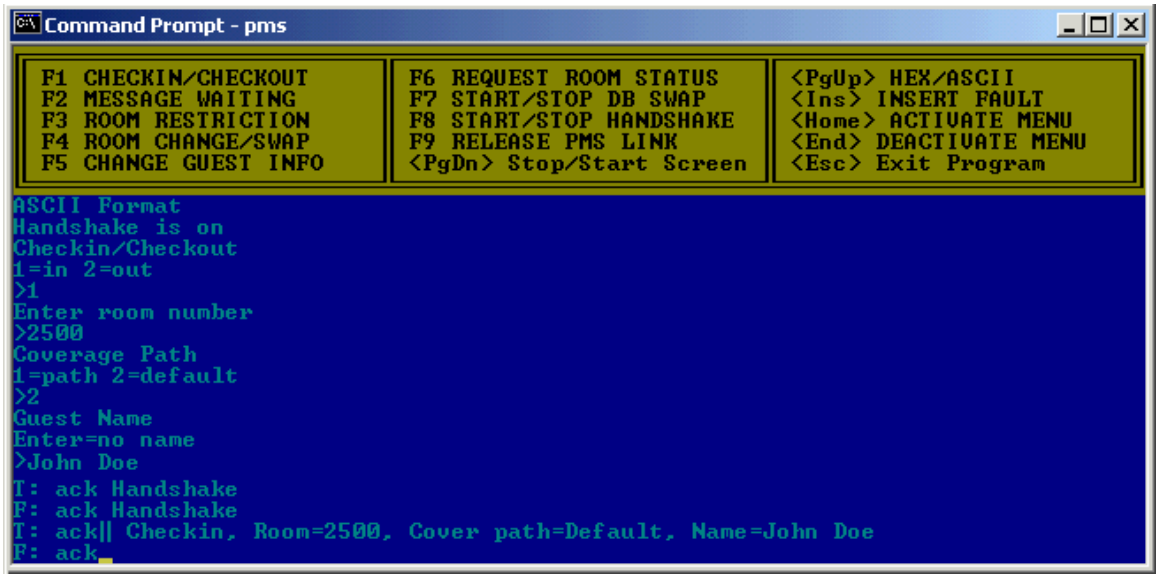
Steps	Description
1.	From the SAT, verify the room with extension 2500 is vacant. Verify *User Cntrl Restr* is set to **outward** (e.g., outward calls are restricted) and *Room Status* is set to **vacant** in the **status station 2500** form.
2.	From the PMS Simulator, check-in guest John Doe into room with extension 2500.

```
status station 2500                                          Page   1 of   5
                                GENERAL STATUS
     Administered Type: 6416D+             Service State: in-service/on-hook
        Connected Type: 6416D+          Parameter Download: complete
             Extension: 2500                 SAC Activated? no
                  Port: 001V203           User Cntrl Restr: outward
           Call Parked? no                 Group Cntrl Restr: none
      Ring Cut Off Act? no               CF Destination Ext:
Active Coverage Option: 1

          EC500 Status: N/A          Off-PBX Service State: N/A
       Message Waiting:
   Connected Ports:




                                          HOSPITALITY STATUS
                                       Awaken at:
                                        User DND: not activated
                                       Group DND: not activated
                                     Room Status: vacant
```



Steps	Description
3.	From the SAT, verify the room with extension 2500 is now occupied. Verify *User Cntrl Restr* is set to **none** (e.g., no outward call restrictions) and *Room Status* is set to **occupied** in the **status station 2500** form.

```
status station 2500                                                Page   1 of   5
                              GENERAL STATUS
     Administered Type: 6416D+             Service State: in-service/on-hook
        Connected Type: 6416D+        Parameter Download: complete
             Extension: 2500               SAC Activated? no
                  Port: 001V203         User Cntrl Restr: none
           Call Parked? no             Group Cntrl Restr: none
      Ring Cut Off Act? no            CF Destination Ext:
Active Coverage Option: 1

          EC500 Status: N/A        Off-PBX Service State: N/A
       Message Waiting:
   Connected Ports:




                                                HOSPITALITY STATUS
                                             Awaken at:
                                              User DND: not activated
                                             Group DND: not activated
                                           Room Status: occupied
```

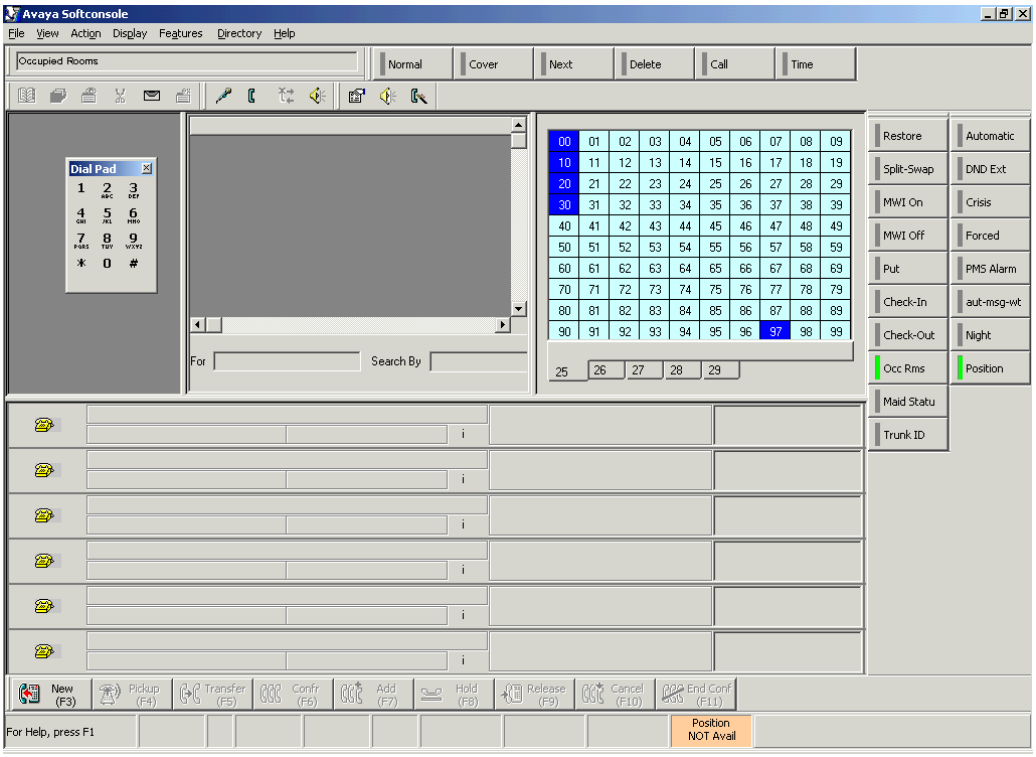
Steps	Description
4.	From the SAT, verify the name of the person registered for extension 2500, **John Doe**, appears in the **list station** form.

```
list station                                                          Page   1

                                  STATIONS

         Port/    Name/                        Room/         Cv1/ COR/    Cable/
Ext      Type     Hunt-to             Move    Data Ext      Cv2  COS     Jack

2500     001V203  John Doe                                        1
         6416D+                       no                          1
2501     001V201                                                  1
         6416D+                       no                          1
2502     001V206                                                  1
         6416D+                       no                          1
2503     001V207                                                  1
         6416D+                       no                          1
2504     001V208                                                  1
         6416D+                       no                          1
2505     001V205                                                  1
         6416D+                       no                          1
2510     001V204                                                  1
         6416D+                       no                          1
```

Steps	Description
5.	From the Avaya Softconsole, verify the room is occupied by pressing the **Occ Rms** button and verifying the cell representing extension 2500, position 00 in tab 25, turns blue. 

8. Conclusion

Following these steps will result in a successful implementation of the PMS data link on Avaya Communication Manager S8300 Media Server with G700 Media Gateway.

9. References

Avaya product information and similar Application Notes can be found at www.avaya.com.

1. Avaya GuestWorks® and DEFINITY® Systems Technician Handbook for Hospitality Installations, Issue 2, December 2001, 555-231-743

2. Avaya Softconsole Release 1.5 Installation and Implementation Guide, Issue 3, April 2005, 555-233-131

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