

Date: 12/17/2003

Log #: AN-0368

DLU Port Configuration for Avaya ECLIPS v2

Application Notes for Ascom Freeset DCT1900 with Avaya™ S8700 Media Server and Avaya™ G600 Media Gateway

Abstract

These Application Notes describe the configuration steps required for the Ascom Freeset DCT1900 to successfully interoperate with the Avaya™ S8700 Media Server and Avaya™ G600 Media Gateways. The Ascom Freeset DCT1900 stations were configured in Avaya™ Communication Manager as digital stations, and the Ascom Freeset DCT1900 was connected to the digital interface cards in the Media Gateway. Features and functionality were validated and performance testing was conducted in order to verify operation under load. Information in these notes has been obtained through compliance testing and additional technical discussions. Testing was conducted via the *DeveloperConnection* Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the compliance-tested configuration utilizing Avaya™ Communication Manager and Ascom Freeset DCT1900. Freeset DCT1900 is the Personal Wireless Telephone (PWT) in-building wireless communication system from Ascom Wireless Solutions, Inc. that interoperates with the Avaya Communication Manager. The system provides call handover and roaming features. The Freeset DCT 1900 consists of the following three subsystems:

1. The Radio Exchange (RE) is the interface between the Avaya™ G600 Media Gateway and the base stations. Incoming and outgoing calls are routed via the RE. The RE is connected to the Media Gateway via the ports of a digital line card.
2. The Base Station enables radio communications between the RE and Portable Telephones. Each Base Station has two antennas for improved performance through diversity selection. The Base Station modulates and demodulates a carrier with the digital encoded information (TDMA frame to and from Portable Telephone).
3. The Ascom portable telephones (models DT620, 9p23 Medic and 9p23 Messenger) provide the functions of a wired telephone. Each is equipped with a 3-line 12-character dot matrix LCD display, backlit illumination keypad and display, and plastic keypad. In addition, the 9p23

Date: 12/17/2003

Log #: AN-0368

telephones include built-in vibration alert, internal antenna, panic button, built-in hands-free loudspeaker, and mute and volume controls. Ascom Freeset DCT1900 requires a circuit pack capable of supporting Avaya™ 8410D Digital telephones. Although the solution was validated using a TN2224 circuit pack, a technical analysis of the interface allows the test results to extend to the TN2181 and TN2224B circuit packs as well. The analysis also supports these circuit packs in the following media gateways:

- Avaya G600 Media Gateway
- Avaya CMC1 Media Gateway
- Avaya CC1 Media Gateway
- Avaya MCC1 Media Gateway

Note that this list specifically excludes the Avaya™ S8300 Media Server using an Avaya™ DMM3 Digital Media Module. The S8300, and corresponding DMM3 media module, is not supported.

As seen in **Figure 1**, Avaya Communication Manager runs on Avaya S8700 Media Servers in an IP Connect configuration. Each Ascom portable telephone is provisioned in Avaya Communication Manager as an Avaya 8410D telephone with four line appearances.

Date: 12/17/2003

Log #: AN-0368

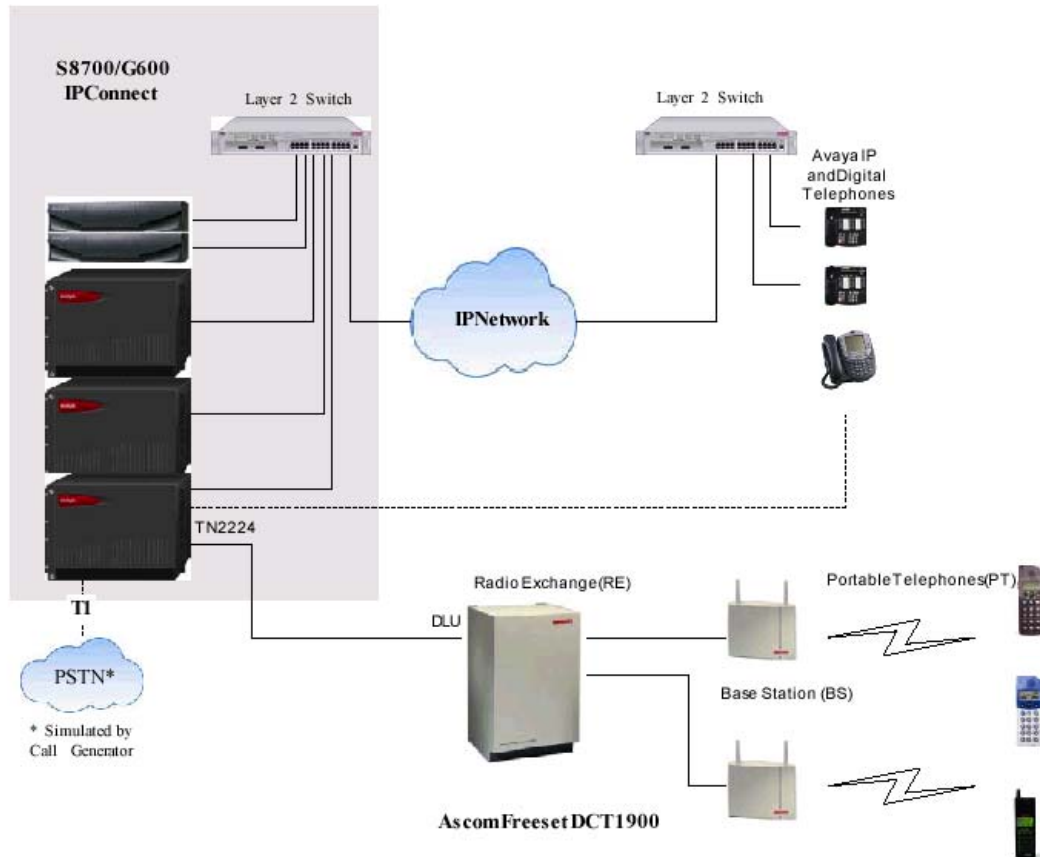


Figure 1: Avaya Developer Connection Compliance Test Configuration for Avaya S8700 IP Connect and Ascom Freeset DCT 1900

Date: 12/17/2003

Log #: AN-0368

2. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment	Software
Avaya™ S8700 Media Server with multiple Avaya G600 Media Gateways	Avaya Communication Manager 1.2
Avaya™ TN2224 Circuit Pack	V7
Ascom Freeset DCT1900 Radio Exchange DLU Board	Application SW: 100LR2 FPGA SW: L1_iE
Ascom Freeset DCT1900 Base Station	R3A
Ascom Freeset DCT1900 DT620 Portable Telephone	R3C
Ascom Freeset DCT1900 9p23 (Medic and Messenger) Portable Telephone	R2C
Ascom Cordless System Manager	R3C

3. Configure Stations on the Avaya S8700 Media Server

Each Ascom portable telephone corresponds to an Avaya 8410D Digital Telephone administered in Communication Manager. For simplicity, one station can be initially created, and the **duplicate station** command can be used to create the remaining stations. The steps to create this initial station are described as follows:

1. Add the station by typing the command **add station 25200**. Configure the **Type** as "8410D" and go to the second page.

Add station 25200		Page 1 of 4
STATION		
Extension: 25200	Lock Messages? n	BCC: 0
Type: 8410D	Security Code :	TN: 1
Port : 02A0601	Coverage Path 1:	COR: 1
Name:	Coverage Path 2:	COS: 1
	Hunt-to Station :	
STATION OPTIONS		
Loss Group: 2	Personalized Ringing Pattern: 1	
Data Module? n	Message Lamp Ext: 25200	
Speakerphone: 2-way	Mute Button Enable? y	
Display Language: english		
	Media Complex Ext:	
	IP SoftPhone? n	

Date: 12/17/2003

Log #: AN-0368

2. Set **Restrict Last Appearance** to "n". Go to the next page.

Add station 25200	Page 2 of 4
STATION	
FEATURE OPTIONS	
LWC Reception: spe	Auto Select Any Idle Appearance? n
LWC Activation? y	Coverage Msg Retrieval? y
LWC Log External Calls? n	Auto Answer: none
CDR Privacy: n	Data Restriction? n
Redirect Notification: y	Idle Appearance Preference? n
Per Button Ring Control? n	Restrict Last Appearance? n
Bridged Call Alerting? n	
Active Station Ringing: single	
H.320 Conversion? n	Per Station CPN – Send Calling Number?
Service Link Mode: as-needed	
Multimedia Mode: basic	
AUDIX Name:	Display Client Redirection? n
	Select Last Used Appearance? n
	Coverage After Forwarding? s
Emergency Location Ext: 25200	Direct IP-IP Audio Connections? y
	IP Audio Hairpinning? y

Date: 12/17/2003

Log #: AN-0368

3.	<p>Configure four-call appearance as shown below.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: right;">Page 3 of 4</p> <p>add station 25200</p> <p style="text-align: center;">STATION</p> <p>SITE DATA</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Room:</td> <td>Headset? n</td> </tr> <tr> <td>Jack:</td> <td>Speaker? n</td> </tr> <tr> <td>Cable:</td> <td>Mounting: d</td> </tr> <tr> <td>Floor:</td> <td>Cord Length: 0</td> </tr> <tr> <td>Building:</td> <td>Set Color:</td> </tr> </table> <p>ABBREVIATED DIALING</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">List1:</td> <td style="width: 33%;">List2:</td> <td style="width: 33%;">List3:</td> </tr> </table> <p>BUTTON ASSIGNMENTS</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">1: call-appr</td> <td>6:</td> </tr> <tr> <td>2: call-appr</td> <td>7:</td> </tr> <tr> <td>3: call-appr</td> <td>8:</td> </tr> <tr> <td>4: call-appr</td> <td>9:</td> </tr> <tr> <td>5:</td> <td>10:</td> </tr> </table> </div>	Room:	Headset? n	Jack:	Speaker? n	Cable:	Mounting: d	Floor:	Cord Length: 0	Building:	Set Color:	List1:	List2:	List3:	1: call-appr	6:	2: call-appr	7:	3: call-appr	8:	4: call-appr	9:	5:	10:
Room:	Headset? n																							
Jack:	Speaker? n																							
Cable:	Mounting: d																							
Floor:	Cord Length: 0																							
Building:	Set Color:																							
List1:	List2:	List3:																						
1: call-appr	6:																							
2: call-appr	7:																							
3: call-appr	8:																							
4: call-appr	9:																							
5:	10:																							
4.	Save the changes for this station.																							
5.	If needed, use the duplicate station command to copy these settings for additional stations.																							
6.	Plug in the Ascom Radio Exchange Units RJ-45 connectors to the ports associated with the provisioned stations.																							

4. Configure the Ascom Portable Telephones

1	Put the handset into INIT mode by pressing the ON button and the '1' and '4' keys.
2	Connect the handset to the adapter connected to the PC running Cordless System Manager.
3	From the menu, select Cordless Phone -> Add Extension Numbers... Provision the list of available extensions.

Date: 12/17/2003

Log #: AN-0368

Add Extension Number

Extension number

Add one

Add range from up to

Line connection

Board address

Circuit number

OK Cancel Help

References

<http://support.Avaya.com/>

<http://www1.avaya.com/enterprise/applicationnotes/ascoms8700rfo.pdf>