



Application Notes for Configuring Aastra SIP-DECT with Avaya Communication Server 1000E Release 7.6 – Issue 1.0

Abstract

These Application Notes describe a solution comprised of Avaya Communication Server 1000E Release 7.6, Aastra SIP-DECT Handsets and Aastra SIP-DECT Open Mobility Manager. During the compliance testing, the Aastra SIP-DECT Handsets were able to register as SIP client endpoints with the Avaya Communication Server 1000E SIP Line gateway. The Aastra SIP-DECT Handsets were able to place and receive calls from Communication Server 1000E Release 7.6 non-SIP and SIP Line telephones.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the configuration steps for provisioning Aastra SIP-DECT to interoperate with Avaya Communication Server 1000E R7.6 (hereafter referred to as CS1000E). The Aastra SIP-DECT solution provides a DECT system that extends an existing SIP communications system, thus operating DECT handsets as SIP clients. The SIP-DECT solution includes up to 4,096 DECT base stations (RFP, “Radio Fixed Parts”) that form a DECT radio system. The RFPs and the SIP communications system are interconnected via an Ethernet/IP network that is used to transport the SIP/VoIP data streams as well as management data.

Within the DECT radio system, a single entity exists that controls all RFPs and manages communication streams, the Open Mobility Manager (OMM). For smaller DECT systems (1 – 256 RFPs), the OMM can be hosted on an RFP. A larger DECT system (256 – 4,096 RFPs) requires hosting the OMM on a Linux PC server system.

2. General Test Approach and Test Results

The Aastra SIP-DECT handsets are configured as 3rd-party SIP users on the CS1000E. The SIP-DECT handsets are configured to register with the SIP Line Gateway on the CS1000E using SIP and are also subscribed to the RFP using DECT. The SIP-DECT handsets then behave as third-party sip extensions on the CS1000E and are able to make/receive internal calls and have voicemail and other telephony facilities available on the Avaya PBX.

The interoperability compliance testing evaluates the ability of Aastra SIP-DECT handsets to make and receive calls to and from Avaya UNISTim and SIP deskphones. Both Avaya Aura® Messaging (messaging) and Avaya Callpilot were used to allow users leave voicemail messages and to demonstrate Message Waiting Indication was working on the Aastra SIP-DECT handsets.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member’s solution.

2.1. Interoperability Compliance Testing

The compliance testing included the test scenarios shown below. Note that when applicable, all tests were performed with Avaya SIP deskphones, Avaya H.323 deskphones, Aastra SIP-DECT handsets and PSTN endpoints.

- Registration
- Protocol Access
- Basic Calls
- Hold and Retrieve
- Attended and Blind Transfer
- Call Forwarding Unconditional, No Reply and Busy
- Call Waiting
- Call Park/Pickup
- Do Not Disturb
- Calling Line Name/Identification
- Codec Support
- DTMF Support
- Message Waiting Indication

2.2. Test Results

The objectives outlined in **Section 2.1** were verified. All Test cases passed successfully and the following observations were made during the compliance testing:

- Recommended that the SIP-DECT is set to use UDP as the transport protocol.
- The CLID was not updated on Blind Transfers to and from the Aastra handsets. This issue is independent of the Aastra handset as this also occurred with the 1st party Avaya SIP handsets.
- MWI indicator being turned off by the NOTIFY message for the Do Not Disturb = no. This issue is being addressed by Aastra with the DEV#14890 and was verified during compliance testing. This fix will be included in SIP-DECT 5.0.
- Local Call Waiting and Call Forward Busy are not support due to the CS1000 SIP line gateway, and will always return 486 Busy Here.

2.3. Support

Support from Avaya is available by visiting the website <http://support.avaya.com> and a list of product documentation can be found in **Section 11** of these Application Notes. Technical support for the Aastra SIP-DECT can be obtained as follows.

- Web: www.aastra.com (please refer to the local country web sites which offer a support section)

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. The Aastra SIP-DECT OMM is placed on the LAN. The DECT handsets register with the CS1000E SIP Line Gateway (SLG) in order to be able to make/receive calls to and from the Avaya deskphones on the CS1000E.

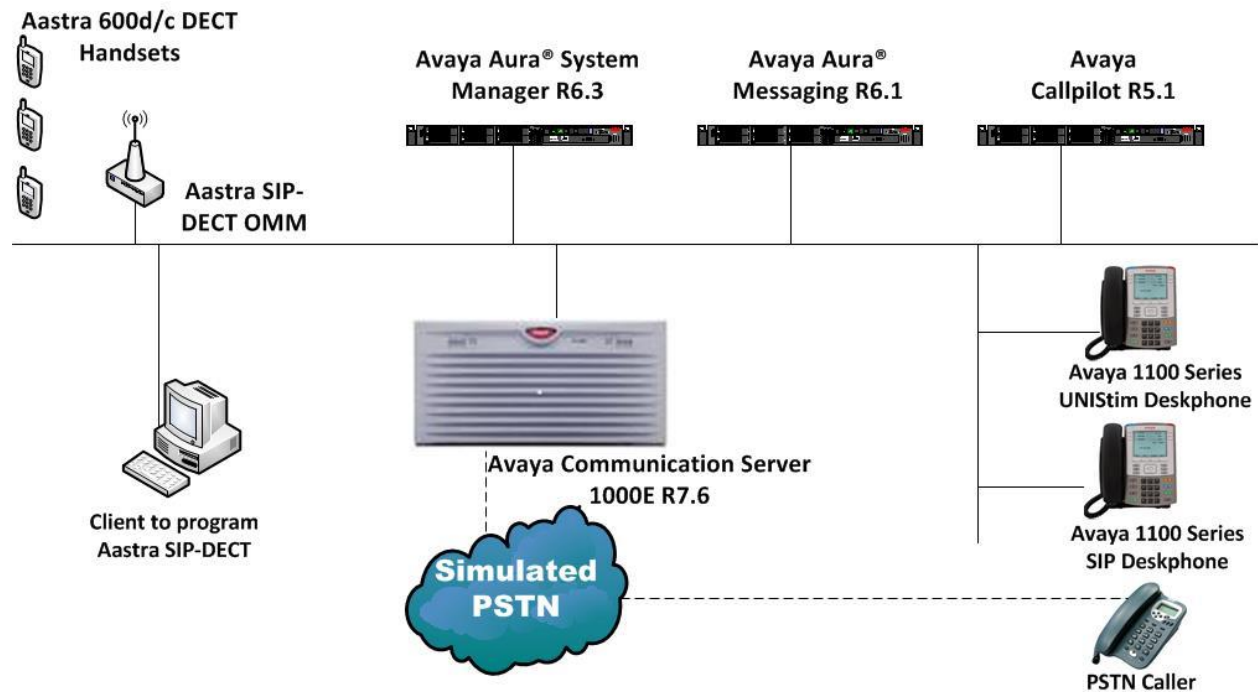


Figure 1: Network Solution of Aastra SIP-DECT with Avaya Communication Server 1000E R7.6.

4. Equipment and Software Validated

The following equipment and software was used during the lab testing:

Equipment/Software	Version/Release
Avaya Aura® System Manager running on an Avaya S8800 Server	R6.3 SP3 Build 6.3.0.8.5682-6.3.8.1814 Software Update Revision 6.3.3.5.1719
Avaya Communication Server 1000E running on an Avaya CPPM	R7.6 (See Appendix for Patch level)
Avaya Callpilot	R5.0.1
Avaya Aura® Messaging running on S8800 Server	R6.1
Avaya 1120E IP Deskphone Avaya 1140E IP Deskphone	UNISim 0624C8Q UNISim 0625C8Q
Avaya 1140E IP Deskphone	SIP 04.03.12.00
Aastra SIP-DECT OMM	5.0
Aastra 600d/c DECT Handsets	5.5
Aastra RFP 35/36/37/43	5.0

5. Configure Avaya Communication Server 1000E

The configuration operations illustrated in this section were performed using terminal access to the CS1000E using PuTTY. It is assumed a fully working CS1000E is in place with the necessary licensing. For all other provisioning information, such as Administering Avaya CS1000E, refer to product documentation in **Section 11** of these Application Notes.

Note: The configuration of PSTN trunks and routes are outside the scope of these Application Notes.

Note: Not all prompts need an answer. The prompts outlined below are mandatory for a basic configuration. Accept the default responses for all other prompts by pressing the Return key.

Note: A full printout of the D-Channel, Route and Trunk information for the SIP Line Gateway used for the compliance testing is included in the **Appendix B** of these Application Notes.

5.1. Verify Licences

To ensure the CS1000E is licensed for SIP use **LD 22** and type **SLT** at the **REQ** prompt. Check for **THIRD PARTY SIP LINES** (in bold below).

Prompt	Response	Description
>	LD 22	Enter Overlay 22
REQ	SLT	
System type is - Communication Server 1000E/CPPM Linux CPPM - Pentium M 1.4 GHz		
IPMGs Registered:	1	
IPMGs Unregistered:	0	
IPMGs Configured/unregistered:	0	
TRADITIONAL TELEPHONES	2000	LEFT 1992 USED 8
DECT USERS	2000	LEFT 2000 USED 0
IP USERS	4000	LEFT 3978 USED 22
BASIC IP USERS	2000	LEFT 1998 USED 2
TEMPORARY IP USERS	2000	LEFT 2000 USED 0
DECT VISITOR USER	2000	LEFT 2000 USED 0
ACD AGENTS	2000	LEFT 1995 USED 5
MOBILE EXTENSIONS	2000	LEFT 2000 USED 0
TELEPHONY SERVICES	2000	LEFT 2000 USED 0
CONVERGED MOBILE USERS	2000	LEFT 2000 USED 0
AVAYA SIP LINES	2000	LEFT 1997 USED 3
THIRD PARTY SIP LINES	2000	LEFT 1998 USED 2
PCA	2000	LEFT 2000 USED 0
ITG ISDN TRUNKS	2000	LEFT 2000 USED 0
H.323 ACCESS PORTS	2000	LEFT 1990 USED 10
AST	2000	LEFT 1981 USED 19
SIP CONVERGED DESKTOPS	2000	LEFT 2000 USED 0
SIP CTI TR87	2000	LEFT 1992 USED 8
SIP ACCESS PORTS	2000	LEFT 1970 USED 30
RAN CON	2000	LEFT 2000 USED 0
MUS CON	2000	LEFT 2000 USED 0

5.2. Adding a Third-Party SIP User on the Avaya Communication Server 1000E

Type **LD 20** at the > prompt to enter overlay 20, this is where 1st and 3rd party SIP users are added.

LD 20

Prompt	Response	Description
>	LD 20	Enter Overlay 20
REQ	NEW	Add/New
TYPE	UEXT	Universal Extension
CUST	0	Customer 0
UXTY	SIPL	SIP Line type of Extension
SIPN	0	1 st Party SIP (0 is no)
SIP3	1	3 rd Party SIP (1 is yes)
SIPU	4000	SIP Lines user id (for Section 8.3)
NDID	111	Node ID (Taken from Section 6)
FDN	5999	Forward no Answer DN (this is Aura Messaging
SCPW	xxxx	Registration Password (used in Section 8.3)
CLS	UNR	Unrestricted (but this will vary per site)
KEY 0	SCR 4000	Key 0 has ext 4000 programmed
KEY 1	HOT U 274000	
RETURN to end		

5.3. Saving configuration on the Avaya Communication Server 1000E

Type **LD 43** at the > prompt to save the newly configured SIP users. Upon entering overlay 43 type **edd** at the . prompt.

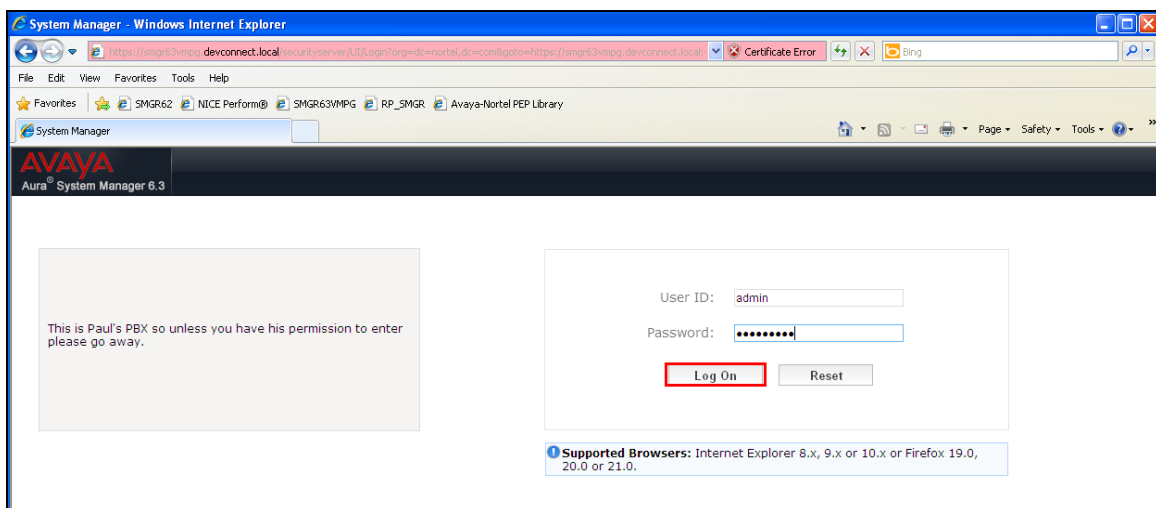
LD 43

>ld 43		
Prompt	Response	Description
>	LD 43	Enter Overlay 43
.	edd	Equipment Data Dump
RETURN		

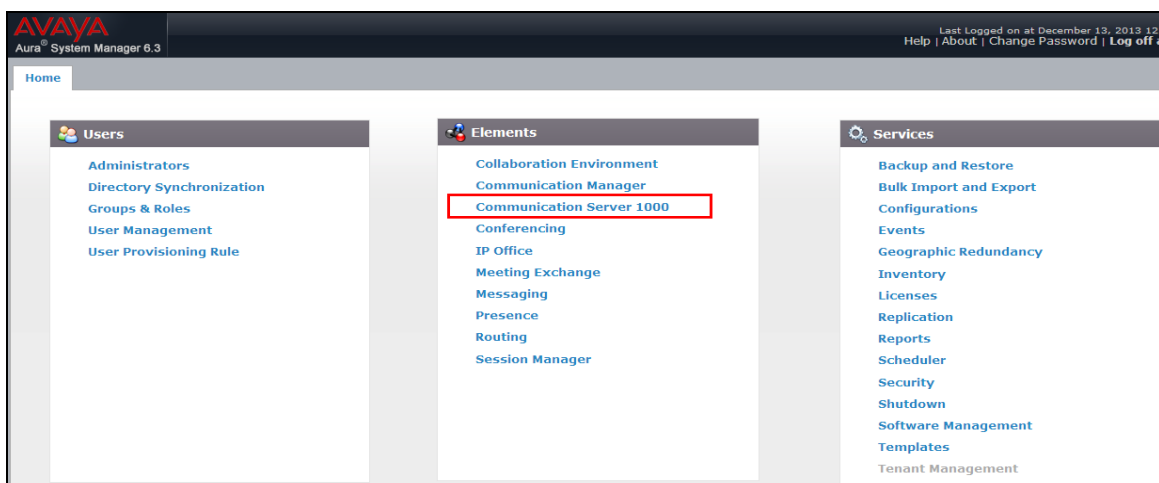
6. Configure Avaya Communication Server 1000E SIP Line Gateway

Although it is assumed that a SIP Line Gateway is already setup, configured and operational it is also essential that this is checked and that the Node IP address is obtained in order to complete the configuration in **Section 8.2**. Note that the SIP Line Gateway is an application installed on the Avaya Communication Server 1000E Signalling Server. In this example this Signalling Server is a co-resident installation with the Avaya Communication Server 1000E Call Server.

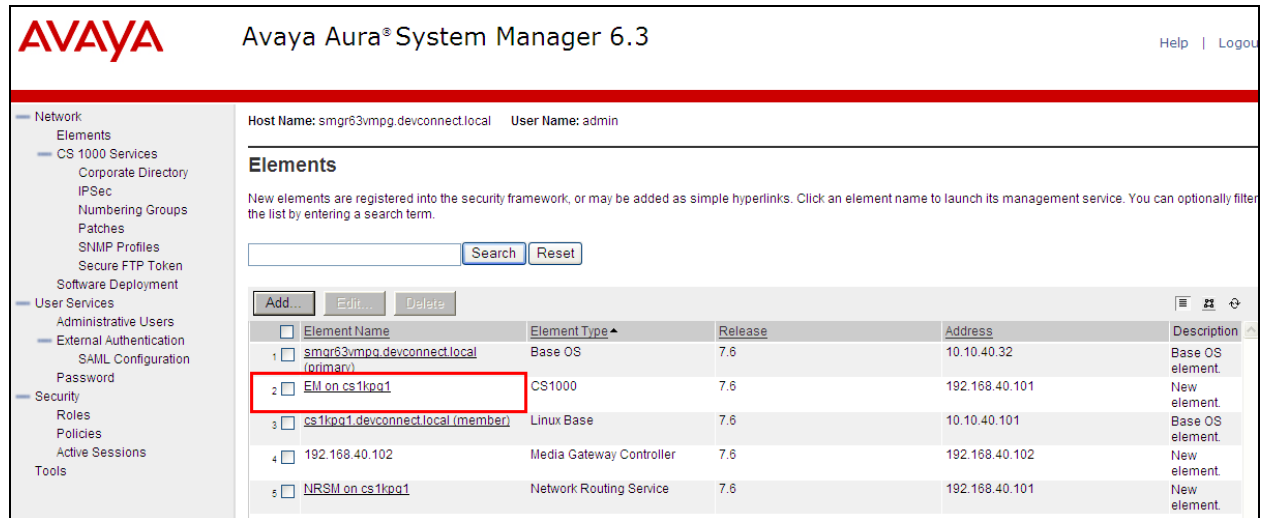
Access to the CS1000E SIP Line Gateway requires access to the Avaya Communication Server 1000E Signalling Server (Signalling Server). This is achieved by logging into System Manager using a Web Browser by entering **http://<FQDN>/SMGR**, where **<FQDN>** is the fully qualified domain name of System Manager or **http://<IP Address>/SMGR**. Log in using appropriate credentials.



Once logged on click on **Communication Server 1000** as highlighted.



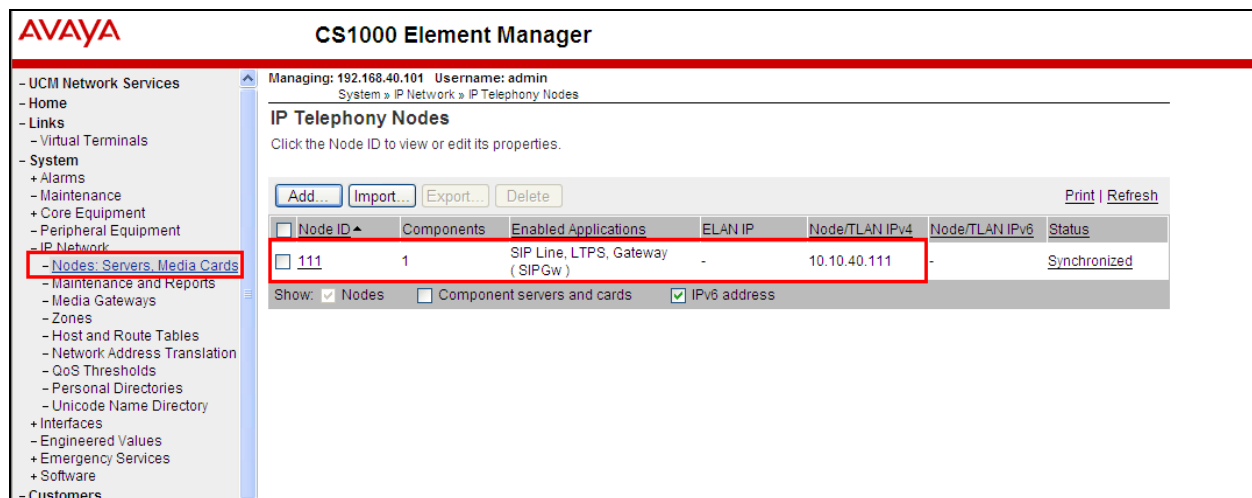
The following screen appears showing the various **Elements**, select **EM on cs1kpg** (note this name may appear different depending on the system).



The screenshot shows the Avaya Aura System Manager 6.3 interface. The left sidebar contains a navigation tree with categories like Network, CS 1000 Services, User Services, and Security. The main content area is titled 'Elements' and shows a list of registered elements. A search bar is at the top of the list. The table below shows the elements:

	Element Name	Element Type	Release	Address	Description
1	smgr63vmpg.devconnect.local (primary)	Base OS	7.6	10.10.40.32	Base OS element.
2	EM on cs1kpg1	CS1000	7.6	192.168.40.101	New element.
3	cs1kpg1.devconnect.local (member)	Linux Base	7.6	10.10.40.101	Base OS element.
4	192.168.40.102	Media Gateway Controller	7.6	192.168.40.102	New element.
5	NRSM on cs1kpg1	Network Routing Service	7.6	192.168.40.101	New element.

Navigate to **IP Network** → **Nodes Servers and Media Cards** in the left window and select the Node associated with the CS1000E, in the example below this **Node ID** is **111**. Open this node by clicking on **111** highlighted below. Note also the IP address of the Node is **10.10.40.111** which will be required in **Section 8.2**.



The screenshot shows the CS1000 Element Manager interface. The left sidebar has a navigation tree with categories like UCM Network Services, Home, Links, System, and IP Network. The main content area is titled 'IP Telephony Nodes' and shows a list of nodes. A search bar is at the top of the list. The table below shows the nodes:

Node ID	Components	Enabled Applications	ELAN IP	Node/TLAN IPv4	Node/TLAN IPv6	Status
111	1	SIP Line, LTPS, Gateway (SIPGw)	-	10.10.40.111	-	Synchronized

To check that the SIP Line Gateway is operational click on **SIP Line** in the main window highlighted below.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Node Details

Node Details (ID: 111 - SIP Line, LTPS, Gateway (SIPGw))

Subnet mask: 255.255.255.0 * Subnet mask: 255.255.255.0 *
Node IPv6 address:

IP Telephony Node Properties

- Voice Gateway (VGW) and Codecs
- Quality of Service (QoS)
- LAN
- SNTP
- Numbering Zones
- MCDN Alternative Routing Treatment (MALT) Causes

Applications (click to edit configuration)

- SIP Line**
- Terminal Proxy Server (TPS)
- Gateway (SIPGw)
- Personal Directories (PD)
- Presence Publisher
- IP Media Services

* Required Value. Save Cancel

The **SIP Line Gateway Application** should be ticked as shown below and the information about the site entered into the **General** section as shown in the example below. Note the **SLG Local Sip port** is set to **5070** and this information will be required in the configuration of the Aastra OMM in **Section 8.2**.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Node Details » SIP Line Configuration

Node ID: 111 - SIP Line Configuration Details

General | SIP Line Gateway Settings | SIP Line Gateway Service

SIP Line Gateway Application: ☒ Enable gateway service on this node

General

SIP domain name: devconnect.local *
SLG endpoint name: CS1kPG1
SLG Group ID:
SLG Local Sip port: 5070 (1 - 65535)
SLG Local Tis port: 5071 (1 - 65535)

Virtual Trunk Network Health Monitor

☐ Monitor IP addresses (listed below)
Information will be captured for the IP addresses listed below.
Monitor IP:
Add
Monitor addresses:
Remove

SIP Line Gateway Settings

Security policy: Security Disabled
Number of byte re-negotiation: 0
Options: ☐ Client authentication

* Required Value. Save Cancel

Note: Changes made on this page will NOT be transmitted until the Node is also saved.

If changes are required then click **Save** (shown above) before leaving the page and follow the next **Section 6.1** Saving changes on the Avaya Communication Server 1000E SIP Line Gateway.

6.1. Saving Changes on the Avaya Communication Server 1000E SIP Line Gateway

Click on **Save** again as highlighted below.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Node Details

Node Details (ID: 111 - SIP Line, LTPS, Gateway (SIPGw))

Node ID: 111 * (0-9999)
Call server IP address: 192.168.40.101 * TLAN address type: ☒ IPv4 only ☐ IPv4 and IPv6

Embedded LAN (ELAN)
Gateway IP address: 192.168.40.1 * Subnet mask: 255.255.255.0 *

Telephony LAN (TLAN)
Node IPv4 address: 10.10.40.111 * Subnet mask: 255.255.255.0 *
Node IPv6 address:

* Required Value. **Save** Cancel

Associated Signaling Servers & Cards

Select to add Add Remove Make Leader Print Refresh

Hostname	Type	Deployed Applications	ELAN IP	TLAN IPv4	Role
cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence	192.168.40.101	10.10.40.101	Leader

Select **Transfer Now** as shown below.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Node Saved

Node Saved

Node ID: 111 has been saved on the call server.
The new configuration must also be transferred to associated servers and media cards.

Transfer Now... You will be given an option to select individual servers, or transfer to all.

Show Nodes You may initiate a transfer manually at a later time.

The following screen is displayed requiring that synchronization is performed followed by a restart of the Applications. Ensure the **Hostname** is ticked as shown in the example below where the hostname is **cs1kpg1** and click on **Start Sync**.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Synchronize Configuration Files

Synchronize Configuration Files (Node ID <111>)

Note: Select components to synchronize their configuration files with call server data. This process transfers server INI files to selected components, and requires a restart* of applications on affected server(s) when complete.

Start Sync **Cancel** **Restart Applications** [Print](#) [Refresh](#)

Hostname	Type	Applications	Synchronization Status
☒ cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	Sync required

* Application restart is only required for initial system configuration or if changes have been made to general LAN configurations, SNTP settings, SIP and H323 Gateway settings, network connectivity related parameters like ports and IP address, enabling or disabling services, or adding or removing application servers.

The following screen shows the **Sync in progress**.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Synchronize Configuration Files

Synchronize Configuration Files (Node ID <111>)

Synchronization in progress. Status will be updated automatically.
(You may also navigate away from this page and return to the [IP Telephony Nodes](#) list to verify completion.)

Start Sync **Cancel** [Print](#) [Refresh](#)

Hostname	Type	Applications	Synchronization Status
cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	Sync in progress

Once the Sync is completed select the **Hostname** again and click on **Restart Applications**. This will complete the Signalling Server configuration for SIP Line Gateway.

AVAYA CS1000 Element Manager

Managing: 192.168.40.101 Username: admin
System » IP Network » IP Telephony Nodes » Synchronize Configuration Files

Synchronize Configuration Files (Node ID <111>)

Note: Select components to synchronize their configuration files with call server data. This process transfers server INI files to selected components, and requires a restart* of applications on affected server(s) when complete.

Start Sync **Cancel** **Restart Applications** [Print](#) [Refresh](#)

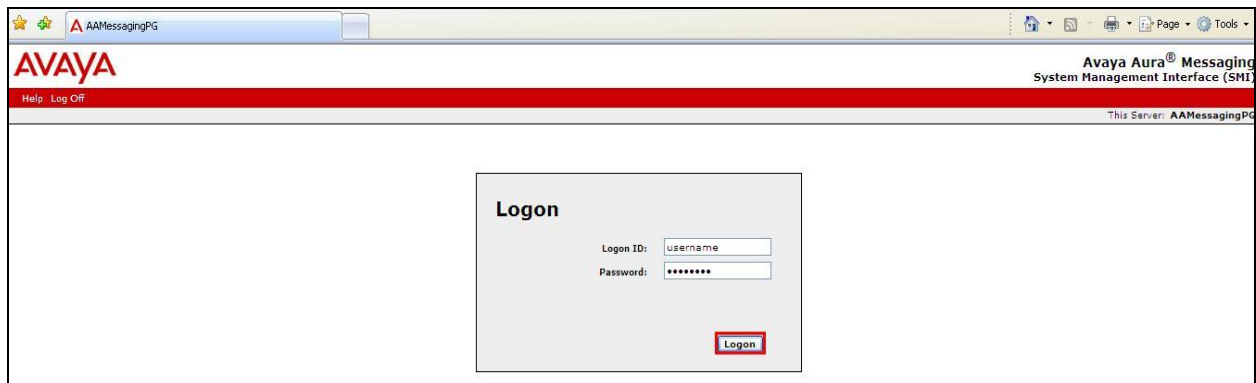
Hostname	Type	Applications	Synchronization Status
☒ cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	Sync required

* Application restart is only required for initial system configuration or if changes have been made to general LAN configurations, SNTP settings, SIP and H323 Gateway settings, network connectivity related parameters like ports and IP address, enabling or disabling services, or adding or removing application servers.

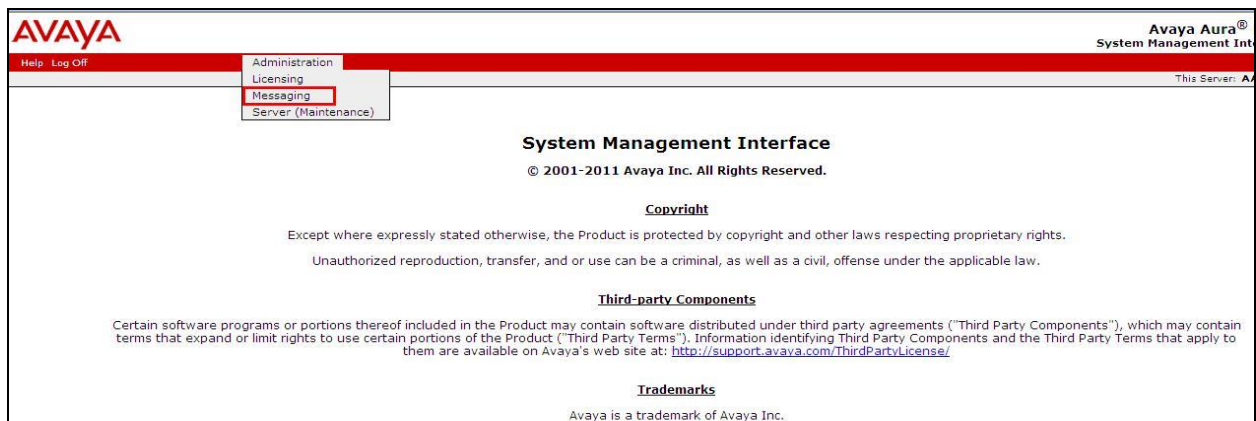
7. Configure Avaya Aura® Messaging

It is assumed that a fully working messaging system is in place and the necessary configuration for CS1000E and Session Manager has already been done. For further information on the installation and configuration of Messaging please refer to **Section 11** of these Application Notes.

Navigate to <http://<Messaging IP Address>>. Enter the appropriate credentials and click on **Logon** highlighted below.



Once logged on select **Messaging** under **Administration** as shown below.



Click on **User Management** in the left hand column and click on **Add** under **Add User/Info Mailbox** as highlighted below.

Enter a suitable **First Name** and **Last Name**. Select the appropriate **Site** from the drop down box. Enter the correct **Mailbox number** and **Extension**. Select the appropriate **Class of Service**.

Ensure that **MWI Enabled** is set to **Yes**. Enter a suitable **password** and click on **Save** once finished.

The screenshot shows the Avaya Administration web interface. The left sidebar contains a navigation tree with categories like 'Messaging System (Storage)', 'Reports (Storage)', 'Server Information', and 'Server Settings (Storage)'. The main content area is titled 'Administration' and shows configuration options for a messaging system. The 'MWI enabled' dropdown is set to 'Yes' and is highlighted with a red box. Below it, the 'New password' and 'Confirm password' fields are also highlighted with a red box. At the bottom, the 'Save' button is highlighted with a red box. Other visible fields include 'Class of Service' (Standard), 'Pronounceable name', 'Miscellaneous 1', and 'Miscellaneous 2'. There are also checkboxes for 'User must change voice messaging password at next login', 'Voice messaging password expired', and 'Locked out from voice messaging'.

AVAYA

Help Log Off Administration

Administration / Messaging

Messaging System (Storage)

- User Management
- Class of Service
- Sites
- Topology
- Storage Destinations
- System Policies
- Enhanced List Management
- System Mailboxes
- System Ports and Access
- User Activity Log Configuration

Reports (Storage)

- Users
- Info Mailboxes
- Remote Users
- Uninitialized Mailboxes
- Login Failures
- Locked Out Users

Server Information

- System Status (Storage)
- System Status (Application)
- Alarm Summary
- Voice Channels (Application)
- Cache Statistics (Application)

Server Settings (Storage)

- External Hosts
- Trusted Servers
- Networked Servers
- Request Remote Update

Class of Service: Standard

Pronounceable name:

MWI enabled: Yes

Miscellaneous 1:

Miscellaneous 2:

New password:

Confirm password:

☐ User must change voice messaging password at next login

☐ Voice messaging password expired

☐ Locked out from voice messaging

Save Delete

8. Configure Aastra SIP-DECT Base Station and Handsets

In the following example the mandatory steps for a minimal SIP-DECT configuration are covered. Please refer to **Section 11** of these Application Notes for the Aastra SIP-DECT documentation, e.g. System Manual, for more details. The configuration of the Aastra SIP-DECT Base Station and Handsets are both achieved through the web interface of the Aastra SIP-DECT base station. Open a web session to the IP address of the DECT base station, enter the appropriate credentials and click on **OK** as shown below.

Firefox

OpenMobility Manager SIP-DECT 5.0RC9

https://10.10.40.76/index.html

Google

heise TEL DEV IT ISDN ON OM OC PTA-SIP TT WebLearn SysDiag LUA AWS OWA 50Freg TELic

Aastra OpenMobility Manager SIP-DECT 5.0RC9

OM Management Portal

Login

System Devconnect

PARK 1F1018725E

User name omm

Password

OK

Once logged in, navigate to **System** → **System settings** in the left window.

Aastra OpenMobility Manager SIP-DECT 5.0RC9 (DIAG) private patch from hzander

Logout OM Management Portal

Status

System

System settings

SIP

User administration

Time zones

SNMP

DB management

Event log

Sites

Radio fixed parts

Portable parts

WLAN

System features

Licenses

Info

General settings

System name Devconnect

Remote access ☒

Tone scheme GB

Net parameters

ToS for voice packets B8

ToS for signalling packets B8

TTL (Time to live) 32

VLAN priority call control 6

VLAN priority audio 6

DECT settings

PARK 1F1018725E (31100303445701)

Encryption ☒

Restrict subscription duration ☐

DECT monitor ☐

Regulatory domain EMEA

DECT authentication code 2222

Portable part user login type Number

When changing the DECT regulatory domain all radio fixed parts will be reset.

8.1. Aastra SIP-DECT System Settings

The OMM system settings provide the fundamental settings to operate the SIP-DECT system. Enter the following details.

- **System Name:** Customer Name
- **Remote access:** Tick the check box to allow SSH access
- **Tone scheme:** Set to the correct country (from the drop down box) to simulate call control tones
- **PARK:** Insert the code from the system CD or license file
- **Regulatory domain:** Select the appropriate Regulatory domain from the drop down box
- **DECT authentication code:** Enter a DECT authentication code for the subscription of new handsets

General settings	
System name	Devconnect
Remote access	☒
Tone scheme	GB ▼
Net parameters	
ToS for voice packets	B8
ToS for signalling packets	B8
TTL (Time to live)	32
VLAN priority call control	6 ▼
VLAN priority audio	6 ▼
DECT settings	
PARK	1F1018725E (31100303445701)
Encryption	☒
Restrict subscription duration	☐
DECT monitor	☐
Regulatory domain	EMEA ▼
DECT authentication code	2222

Set the **Voice mail number**. Note this voicemail number was selected during the configuration of Messaging and is outside the scope of these Application Notes, just note that this is the number to dial in order to access voicemail.

Radio fixed parts update	
Mode	One by one ▾
Trigger	☐
Time	00 : 00
OMP web start	
Codebase	
Downloading new firmware to portable parts	
Active	☒
Voice mail	
Voice mail number	5999
OM Integrated Messaging & Alerting service	
Internal message routing (PP <> PP)	☐
URL	Update
Syslog	
Active	☒
IP address	10.10.16.182
Port	514 Default
WLAN settings	
Regulatory domain	DE ▾
 When changing the WLAN regulatory domain all access points will be deactivated.	
Date and time	
Time zone	Western European (WET DST) ▾

Once everything is properly set, scroll to the top of the page and click on **OK**.

System settings	
Status	
 Please check the status page.	
 Changing these settings may cause the OpenMobility Manager to be reset.	
<input checked="" type="button" value="OK"/>	Cancel
Update	Restart

Configure all base stations or Radio fixed Part (RFP) to be operational. Click on New or edit already captured RFPs to start with the configuration (not shown). Fill in the following information correctly.

- **MAC address:** Enter the MAC address of the RFP
- **Name:** Enter a name for the RFP
- **Site:** Enter the site number

Ensure that **DECT settings** is ticked and enter the **DECT cluster**, (default is 1). Click on **OK** once this is done.

Configure radio fixed part

 Please configure a WLAN profile of proper type.

General settings

MAC address00:30:42:12:6D:D1

NameOMM RFP

Site1 ▾

☒ **DECT settings**

DECT cluster1

Preferred synchronization source☐

Reflective environment☐

☐ **WLAN settings**

WLAN profile1 ▾

802.11 channel▾

Output power levelFull ▾

HT40☐

OK

8.2. Aastra SIP-DECT SIP Settings

To configure the SIP connection to the CS1000E SIP Line Gateway the OMM requires the SIP information as outlined in **Section 6**. The SIP domain name of the Node outlined in **Section 6** must match to the configured Proxy server and Registrar in SIP-DECT. If the SIP domain cannot be resolved via DNS, configure the CS1000E SIP Line Gateway as an outbound proxy server (+Port) in SIP-DECT. The default SIP signalling port for the CS1000E SIP Line Gateway is 5070. Navigate to **System → SIP** in the left window (not shown) and configure the following, all other fields can be left as default.

- **Proxy server** SIP domain (as displayed in **Section 6**)
- **Proxy port** 5070 (as displayed in **Section 6**)
- **Registrar server** SIP domain (as displayed in **Section 6**)
- **Registrar port** 5070 (as displayed in **Section 6**)
- **Registration period** 360
- **Outbound proxy server** CS1000E SIP Line Gateway Node IP Address (as per **Section 6**)
- **Outbound proxy port** 5070
- **Explicit MWI subscription** Enabled

Basic settings		
Proxy server	devconnect.local	
Proxy port	5070	
Registrar server	devconnect.local	
Registrar port	5070	
Registration period	360	sec
Advanced settings		
Outbound proxy server	10.10.40.111	
Outbound proxy port	5070	
Explicit MWI subscription	☒	
User agent info	☒	
Dial terminator	#	
Registration failed retry timer	120	sec
Registration timeout retry timer	180	sec
Transaction timer	4000	msec
Blacklist time out	5	min
Determine remote party by	P-Asserted-Identity	header
Multiple 180 Ringing	☒	
Semi-attended transfer mode	Blind	
Refer-to with replaces	☐	

The default **RTP settings**, **DTMF settings** and **Registration traffic shaping** were used during testing, change the configuration only if specifically required.

RTP settings	
RTP port base	16320
Preferred codec 1	G.722 ▼
Preferred codec 2	G.711 u-law ▼
Preferred codec 3	G.711 A-law ▼
Preferred codec 4	G.729 A ▼
Preferred packet time	20 ▼ msec
Silence suppression	☐
Receiver precedence on codec negotiation	☐
Eliminate comfort noise packets	☐
Single codec reply in SDP	☐
DTMF settings	
Out-of-band	☒
Method	RTP(RFC 2833) ▼
Payload type	101
Registration traffic shaping	
Active	☒
Simultaneous registrations	4
Waiting time	0 msec

To avoid invalid Caller Identifications (e.g.; phone-context) on the handset, enable **Truncate Caller identification after “;”** other **Supplementary Services** can be left as default and the **Transport protocol** should be set to **UDP**.

Supplementary Services	
Call forwarding / Diversion	☒
Local line handling	☒
Call transfer by hook (A142d)	☐
Truncate Caller Indication after ';'	☒
SIP reRegister after 2 active OMM failover	☐

Security	
Transport protocol	UDP
Persistent TLS keep alive timer active	☐
Persistent TLS keep alive timer timeout	30 sec
Send SIPs over TLS active	☐
TLS-Authentication	☐
TLS-Common-Name-Validation	☐
Trusted certificate(s)	0
Local certificate chain	0
Private key	✗
Delete certificates/key	Delete

Once all the changes are made scroll to the top of the page and click on **OK** as shown below.



[Logout](#)
[OM Management Portal](#)

[Status](#)
[System](#)

[System settings](#)
[SIP](#)
[User administration](#)
[Time zones](#)
[SNMP](#)

SIP

Status

 Please check the status page.

[OK](#)
[Cancel](#)

8.3. Configure Aastra SIP-DECT Handsets

SIP-DECT allows multiple configuration and provisioning methods for handsets or Portable Parts. In this example fixed Portable Parts were used, for further methods please refer to the manuals outlined in **Section 11** of these Application Notes.

For each Handset (user) in SIP-DECT a SIP-Extension on the CS1000E (as outlined in **Section 5.2**) must be configured. To create new portable parts navigate to **Portable Parts** in the left window (not shown) and click on **New**.

Portable parts

Status

 Please check the status page.

New

Import

Search

PARK: 31100303445701

Subscription allowed: 

Auto-create on subscription: 

Subscription with configured IPEIs

Start

Wildcard subscription

2 min ▾

Start

1 - 3 (3) Portable parts

Display name	Number/SIP user name	IPEI	Subscribed
  DECT 1	4000	03586 0677849 3	
  DECT 2	4001	03586 0677940 4	
  DECT 3	4002	03586 0732594 8	

Enter the following information.

- **Display Name** Contact information of the handset
- **Number/SIP User name** This is the extension number configured in **Section 5.2**
- **IPEI** Handset hardware identifier (optional)
- **DECT authentication code** This is the same as that configured in **Section 8.1**
- **Authentication user name** This is the extension number configured in **Section 5.2**
- **Password** This is the password configured in **Section 5.2**

Configure portable part	
General settings	
Display name	DECT 1
Number/SIP user name	4000
IPEI	03586 0677849 3
DECT authentication code	2222
Login/Additional ID	
Delete subscription	☐
SOS number	
ManDown number	
Voice mail number	
Number used for visibility checks	☐
SIP authentication	
Authentication user name	4000
Password	••••••••••••••••
Password confirmation	••••••••••••••••

To subscribe new handsets, subscriptions need to be permitted by the OMM. Use Wildcard subscription if no IPEI is set.

Wildcard subscription	
10 min ▾	Start

8.4. Subscribe Aastra SIP-DECT Handsets

To subscribe new Aastra 600c/d handsets select **Menu** on the handset and navigate to **Menu** → **System** → **Subscriptions**. Select **New System** and enter the Authentication code provided in the System Settings in **Section 8.1** (2222). The handset allows to enter a PARK or to proceed without a PARK. Set the PARK if several DECT systems are around otherwise the handset try to subscribe to the first available DECT system.

9. Verification Steps

The following steps can be taken to ensure that the configuration between Aastra SIP-DECT and Avaya Communication Server 1000E is correct.

9.1. Avaya Communication Server 1000E SIP User Registration

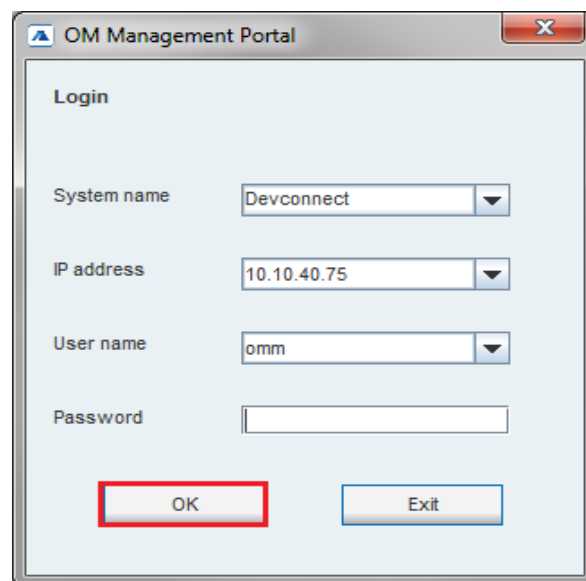
Type **LD 32** at the > prompt to check the status of each SIP user. Upon entering overlay 32 type **stat** (Loop Shelf Card Unit) in the example below this is **100 0 2 0**. The response should show **IDLE** and **REGISTERED** as shown below.

LD 32

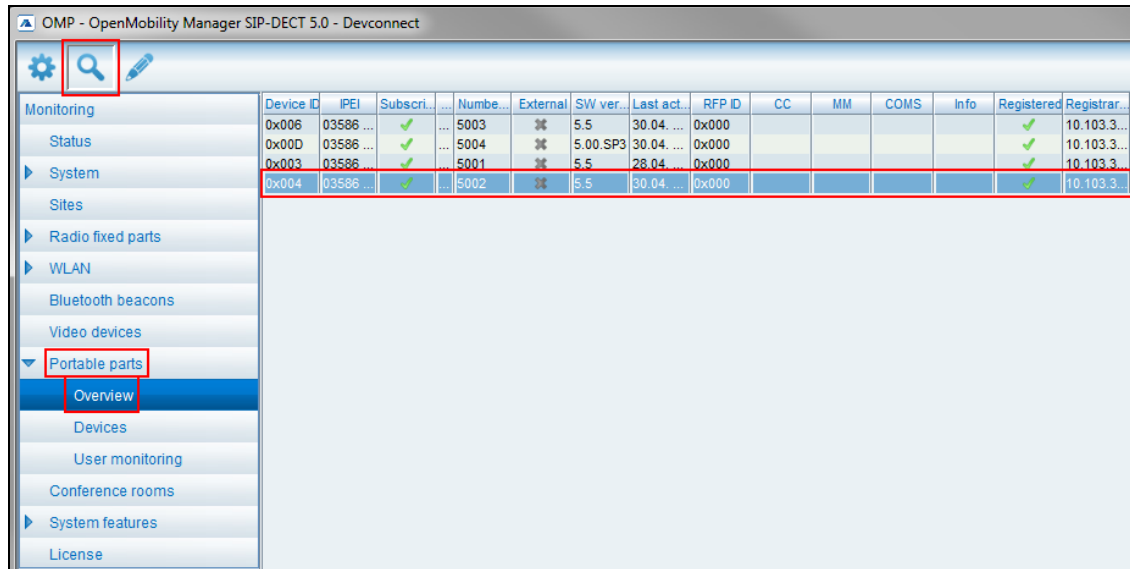
Prompt	Response	Description
>	LD 32	Enter Overlay 32
.	stat 100 0 2 0	Check the status of Terminal Number 100 0 2 0
IDLE REGISTERED 00		

9.2. Verify Aastra SIP-DECT Handset Registration

To check the handset state and SIP registration status, OpenMobility Management Portal OMP) offer a monitoring mode. Select the correct **System name** and **IP address** and enter the proper credentials and click on **OK**.



Open OMP and go to **Monitoring → Portable Parts → Overview**. A green tick should be displayed to show each device (Handset) is **Subscribed** and **Registered**.



Device ID	IPEI	Subscri...	Numbe...	External	SW ver...	Last act...	RFP ID	CC	MM	COMS	Info	Registered	Registrar...
0x006	03586 ...	✓	5003	⌘	5.5	30.04. ...	0x000					✓	10.103.3...
0x00D	03586 ...	✓	5004	⌘	5.00.SP3	30.04. ...	0x000					✓	10.103.3...
0x003	03586 ...	✓	5001	⌘	5.5	28.04. ...	0x000					✓	10.103.3...
0x004	03586 ...	✓	5002	⌘	5.5	30.04. ...	0x000					✓	10.103.3...

Switch off / on the DECT handset to force SIP user registrations.

10. Conclusion

These Application Notes describe the configuration steps required for Aastra SIP-DECT to successfully interoperate with Avaya Communication Server 1000E R7.6 by registering the Aastra SIP-DECT handsets with the SIP Line Gateway on the CS1000E. Please refer to **Section 2.2** for test results and observations.

11. Additional References

This section references documentation relevant to these Application Notes. The Avaya product documentation is available at <http://support.avaya.com> where the following documents can be obtained.

- [1] *Software Input Output Reference — Administration Avaya Communication Server 1000 R7.6* NN43001-611, 05.02
- [2] *SIP Line Fundamentals Avaya Communication Server 1000 R7.6* NN43001-508, 03.03
- [3] *Co-resident Call Server and Signaling Server Fundamentals Avaya Communication Server 1000 R7.6* NN43001-509, 03.01
- [4] *Administering Avaya Aura® Messaging R6.1*

Aastra's technical documentation is available at www.aastra.com. Please see a list of the documentation used for these Application Notes.

- [6] *SIP-DECT® OM System Manual: Installation, Administration, and Maintenance Release 5.0*
- [7] *SIP-DECT® Knowledge Base: Avaya Communication Server 1000E*

Appendix A

Avaya Communication Server 1000E R7.6 - Linux Patches

Product Release: 7.65.16.00

In system patches: 0

In System service updates: 26

PATCH#	IN SERVICE	SPECINS	REMOVABLE	NAME
2	Yes	NO	YES	cs1000-dmWeb-7.65.16.21-01.i386.000
3	Yes	NO	yes	cs1000-snmp-7.65.16.00-01.i686.000
4	Yes	NO	YES	cs1000-nrsm-7.65.16.00-03.i386.000
5	Yes	NO	YES	cs1000-oam-logging-7.65.16.01-01.i386.000
6	Yes	NO	yes	cs1000-cs1000WebService_6-0-7.65.16.21-00.i386.000
7	Yes	NO	YES	cs1000-sps-7.65.16.21-01.i386.000
8	Yes	NO	YES	cs1000-pd-7.65.16.21-00.i386.000
9	Yes	NO	YES	cs1000-shared-carrdtct-7.65.16.21-01.i386.000
10	Yes	NO	YES	cs1000-shared-tpselect-7.65.16.21-01.i386.000
11	Yes	NO	YES	cs1000-emWebLocal_6-0-7.65.16.21-01.i386.000
12	Yes	NO	yes	cs1000-dbcsm-7.65.16.21-00.i386.000
13	Yes	NO	YES	cs1000-csmWeb-7.65.16.21-05.i386.000
14	Yes	NO	YES	cs1000-shared-xmsg-7.65.16.21-00.i386.000
15	Yes	NO	YES	cs1000-vtrk-7.65.16.21-29.i386.000
16	Yes	NO	YES	cs1000-tps-7.65.16.21-05.i386.000
17	Yes	NO	YES	cs1000-mscAnnc-7.65.16.21-02.i386.001
18	Yes	NO	YES	cs1000-mscAttn-7.65.16.21-04.i386.001
19	Yes	NO	YES	cs1000-mscConf-7.65.16.21-02.i386.001
20	Yes	NO	YES	cs1000-mscMusc-7.65.16.21-02.i386.001
21	Yes	NO	YES	cs1000-mscTone-7.65.16.21-03.i386.001
22	Yes	NO	YES	cs1000-bcc-7.65.16.21-21.i386.000
23	Yes	NO	YES	cs1000-Jboss-Quantum-7.65.16.21-3.i386.000
24	Yes	NO	YES	cs1000-emWeb_6-0-7.65.16.21-06.i386.000
25	Yes	NO	yes	cs1000-cs-7.65.P.100-01.i386.001
26	Yes	YES	yes	cs1000-linuxbase-7.65.16.21-08.i386.000
27	Yes	NO	YES	cs1000-patchWeb-7.65.16.21-06.i386.000

Avaya Communication Server 1000E R7.6 - Call Server Patches

VERSION 4121
RELEASE 7
ISSUE 65 P +
DepList 1: core Issue: 01 (created: 2013-12-17 04:32:53 (est))

IN-SERVICE PEPS

PAT#	CR #	PATCH REF #	NAME	DATE	FILENAME	SPECINS
000	wi01052968	ISS1:1OF1	p32540_1	19/03/2014	p32540_1.cpl	NO
001	wi01045058	ISS1:1OF1	p32214_1	19/03/2014	p32214_1.cpl	NO
002	wi01085855	ISS1:1OF1	p32658_1	19/03/2014	p32658_1.cpl	NO
003	wi01053314	ISS1:1OF1	p32555_1	19/03/2014	p32555_1.cpl	NO
004	wi01060382	iss1:1of1	p32623_1	19/03/2014	p32623_1.cpl	YES
005	wi01070580	ISS1:1OF1	p32380_1	19/03/2014	p32380_1.cpl	NO
006	wi01101876	ISS1:1OF1	p32858_1	20/03/2014	p32858_1.cpl	NO
007	wi01061481	ISS1:1OF1	p32382_1	19/03/2014	p32382_1.cpl	NO
008	wi01124074	ISS1:1OF1	p32989_1	20/03/2014	p32989_1.cpl	NO
009	wi01099300	iss1:1of1	p32704_1	20/03/2014	p32704_1.cpl	NO
010	wi01035976	ISS1:1OF1	p32173_1	19/03/2014	p32173_1.cpl	NO
011	wi01065922	ISS1:1OF1	p32516_1	19/03/2014	p32516_1.cpl	NO
012	wi01055480	ISS1:1OF1	p32712_1	19/03/2014	p32712_1.cpl	NO
013	wi01041453	ISS1:1OF1	p32587_1	19/03/2014	p32587_1.cpl	NO
014	wi01096842	ISS1:1OF1	p32731_1	20/03/2014	p32731_1.cpl	NO
015	WI0110261	ISS1:1OF1	p32758_1	19/03/2014	p32758_1.cpl	NO
016	wi01064599	iss1:1of1	p32580_1	19/03/2014	p32580_1.cpl	NO
017	wi01098783	ISS1:1OF1	p32748_1	20/03/2014	p32748_1.cpl	NO
018	wi01072027	ISS1:1OF1	p32689_1	19/03/2014	p32689_1.cpl	NO
019	wi01059388	iss1:1of1	p32628_1	19/03/2014	p32628_1.cpl	NO
020	wi01104410	ISS1:1OF1	p32801_1	20/03/2014	p32801_1.cpl	NO
021	wi00933195	ISS1:1OF1	p32491_1	19/03/2014	p32491_1.cpl	NO
022	wi00996734	ISS1:1OF1	p32550_1	19/03/2014	p32550_1.cpl	NO
023	wi01065118	ISS1:1OF1	p32397_1	19/03/2014	p32397_1.cpl	NO
024	wi01063864	ISS1:1OF1	p32410_1	19/03/2014	p32410_1.cpl	YES
025	wi01096712	ISS1:1OF1	p32708_1	20/03/2014	p32708_1.cpl	NO
026	wi01075359	ISS1:1OF1	p32671_1	19/03/2014	p32671_1.cpl	NO
027	wi01080753	ISS1:1OF1	p32518_1	19/03/2014	p32518_1.cpl	NO
028	wi01070473	ISS1:1OF1	p32413_1	19/03/2014	p32413_1.cpl	NO
029	wi01075355	ISS1:1OF1	p32594_1	19/03/2014	p32594_1.cpl	NO
030	wi01071379	ISS1:1OF1	p32522_1	19/03/2014	p32522_1.cpl	NO
031	wi01070756	ISS1:1OF1	p32444_1	19/03/2014	p32444_1.cpl	NO
032	wi01075353	ISS1:1OF1	p32613_1	19/03/2014	p32613_1.cpl	NO
033	wi01062607	ISS1:1OF1	p32503_1	19/03/2014	p32503_1.cpl	NO
034	wi01068851	ISS1:1OF1	p32439_1	19/03/2014	p32439_1.cpl	NO
035	wi01075352	ISS1:1OF1	p32603_1	19/03/2014	p32603_1.cpl	NO
036	wi01092300	ISS1:1OF1	p32692_1	19/03/2014	p32692_1.cpl	NO
037	wi01063263	ISS1:1OF1	p32573_1	19/03/2014	p32573_1.cpl	NO
038	wi01087528	ISS1:1OF1	p32700_1	19/03/2014	p32700_1.cpl	NO
039	wi01111400	ISS1:1OF1	p32854_1	20/03/2014	p32854_1.cpl	NO
040	wi01039280	ISS1:1OF1	p32423_1	19/03/2014	p32423_1.cpl	NO
041	wi01068669	ISS1:1OF1	p32333_1	19/03/2014	p32333_1.cpl	NO
042	wi01069441	ISS1:1OF1	p32097_1	19/03/2014	p32097_1.cpl	NO
043	wi01058621	ISS1:1OF1	p32339_1	19/03/2014	p32339_1.cpl	NO
044	wi01032756	ISS1:1OF1	p32673_1	19/03/2014	p32673_1.cpl	NO
045	wi01070465	iss1:1of1	p32562_1	19/03/2014	p32562_1.cpl	NO
046	wi01053920	ISS1:1OF1	p32303_1	19/03/2014	p32303_1.cpl	NO
047	wi00897254	ISS1:1OF1	p31127_1	19/03/2014	p31127_1.cpl	NO
048	wi01057403	ISS1:1OF1	p32591_1	19/03/2014	p32591_1.cpl	NO
049	wi01066991	ISS1:1OF1	p32449_1	19/03/2014	p32449_1.cpl	NO
050	wi01094305	ISS1:1OF1	p32640_1	19/03/2014	p32640_1.cpl	NO
051	wi01060611	ISS1:1OF1	p32809_1	20/03/2014	p32809_1.cpl	NO

052	wi01123033	ISS1:1OF1	p33006_1	20/03/2014	p33006_1.cpl	NO
053	wi01060241	ISS1:1OF1	p32381_1	19/03/2014	p32381_1.cpl	NO
054	wi01034307	ISS1:1OF1	p32615_1	19/03/2014	p32615_1.cpl	NO
055	wi01052428	ISS1:1OF1	p32606_1	19/03/2014	p32606_1.cpl	NO
056	wi00884716	ISS1:1OF1	p32517_1	19/03/2014	p32517_1.cpl	NO
057	wi01070468	iss1:1of1	p32418_1	19/03/2014	p32418_1.cpl	NO
058	wi01091447	ISS1:1OF1	p32675_1	19/03/2014	p32675_1.cpl	NO
059	wi01130189	ISS1:1OF1	p33004_1	20/03/2014	p33004_1.cpl	YES
060	wi01132599	ISS1:1OF1	p33025_1	20/03/2014	p33025_1.cpl	NO
061	wi01065125	ISS1:1OF1	p32416_1	19/03/2014	p32416_1.cpl	NO
062	wi01056633	ISS1:1OF1	p32322_1	19/03/2014	p32322_1.cpl	NO
063	wi01078721	ISS1:1OF1	p32553_1	20/03/2014	p32553_1.cpl	NO
064	wi01053597	ISS1:1OF1	p32304_1	19/03/2014	p32304_1.cpl	NO
065	wi01132883	ISS1:1OF1	p33030_1	20/03/2014	p33030_1.cpl	NO
066	wi01025156	ISS1:1OF1	p32136_1	19/03/2014	p32136_1.cpl	NO
067	wi01088775	ISS1:1OF1	p32659_1	19/03/2014	p32659_1.cpl	NO
068	wi01114038	ISS1:1OF1	p32869_1	20/03/2014	p32869_1.cpl	NO
069	wi01075360	iss1:1of1	p32602_1	19/03/2014	p32602_1.cpl	NO
070	wi01053195	ISS1:1OF1	p32297_1	19/03/2014	p32297_1.cpl	NO
071	wi01043367	ISS1:1OF1	p32232_1	19/03/2014	p32232_1.cpl	NO
072	wi01082456	ISS1:1OF1	p32596_1	19/03/2014	p32596_1.cpl	NO
073	wi01089519	ISS1:1OF1	p32665_1	19/03/2014	p32665_1.cpl	NO
074	wi01105888	ISS1:1OF1	p32794_1	20/03/2014	p32794_1.cpl	NO
075	wi01088585	ISS1:1OF1	p32656_1	19/03/2014	p32656_1.cpl	NO
076	wi01035980	ISS1:1OF1	p32558_1	19/03/2014	p32558_1.cpl	NO
077	wi01087543	ISS1:1OF1	p32662_1	19/03/2014	p32662_1.cpl	NO
078	wi01060826	ISS1:1OF1	p32379_1	19/03/2014	p32379_1.cpl	NO
079	wi01114177	ISS1:1OF1	p32871_1	20/03/2014	p32871_1.cpl	NO
080	wi01034961	ISS1:1OF1	p32144_1	19/03/2014	p32144_1.cpl	NO
081	wi01111041	ISS1:1OF1	p32840_1	20/03/2014	p32840_1.cpl	NO
082	WI01077073	ISS1:1OF1	p32534_1	19/03/2014	p32534_1.cpl	NO
083	wi01133985	ISS1:1OF1	p33049_1	20/03/2014	p33049_1.cpl	NO
084	wi01060341	ISS1:1OF1	p32578_1	19/03/2014	p32578_1.cpl	NO
085	wi01130836	ISS1:1OF1	p33008_1	20/03/2014	p33008_1.cpl	YES
086	wi01118928	ISS1:1OF1	p32922_1	20/03/2014	p32922_1.cpl	NO
087	wi01070585	ISS1:1OF1	p32383_1	20/03/2014	p32383_1.cpl	NO
088	wi01071296	ISS1:1OF1	p32836_1	20/03/2014	p32836_1.cpl	NO
089	wi01089355	ISS1:1OF1	p32674_1	20/03/2014	p32674_1.cpl	YES
090	wi01119312	ISS1:1OF1	p32919_1	20/03/2014	p32919_1.cpl	NO
091	wi01134952	ISS1:1OF1	p33039_1	20/03/2014	p33039_1.cpl	NO
092	wi01124477	ISS1:1OF1	p32963_1	20/03/2014	p32963_1.cpl	NO
093	wi01117636	ISS1:1OF1	p32941_1	20/03/2014	p32941_1.cpl	YES
094	wi01115894	ISS1:1OF1	p32910_1	20/03/2014	p32910_1.cpl	NO
095	wi01101385	ISS1:1OF1	p32773_1	20/03/2014	p32773_1.cpl	YES
096	wi01115450	ISS1:1OF1	p32888_1	20/03/2014	p32888_1.cpl	NO
097	wi01075538	ISS1:1OF1	p32469_1	20/03/2014	p32469_1.cpl	NO
098	wi01038234	ISS1:1OF1	p32192_1	20/03/2014	p32192_1.cpl	YES
099	wi01126552	ISS1:1OF1	p32975_1	20/03/2014	p32975_1.cpl	NO
100	wi01130405	ISS1:1OF1	p33015_1	20/03/2014	p33015_1.cpl	NO
101	wi01129028	ISS1:1OF1	p33016_1	20/03/2014	p33016_1.cpl	NO
102	wi01099724	ISS1:1OF1	p32742_1	20/03/2014	p32742_1.cpl	YES
103	wi01129098	ISS1:1OF1	p32951_1	20/03/2014	p32951_1.cpl	NO
104	wi01101781	ISS1:1OF1	p32890_1	20/03/2014	p32890_1.cpl	NO
105	WI01108562	ISS1:1OF1	p32832_1	20/03/2014	p32832_1.cpl	NO
106	wi01094727	ISS1:1OF1	p32848_1	20/03/2014	p32848_1.cpl	NO
107	wi01096967	ISS1:1OF1	p32735_1	20/03/2014	p32735_1.cpl	NO
108	wi01022598	ISS1:1OF1	p32066_1	20/03/2014	p32066_1.cpl	NO
109	wi01126454	ISS1:1OF1	p32973_1	20/03/2014	p32973_1.cpl	NO
110	wi01051200	ISS1:1OF1	p32290_1	20/03/2014	p32290_1.cpl	NO
111	wi01127640	ISS1:1OF1	p32992_1	20/03/2014	p32992_1.cpl	NO
112	wi01128512	ISS1:1OF1	p32997_1	20/03/2014	p32997_1.cpl	NO
113	wi01122174	ISS1:1OF1	p32936_1	20/03/2014	p32936_1.cpl	NO

114	wi01097598	ISS1:1OF1	p32797_1	20/03/2014	p32797_1.cpl	NO
115	wi01095462	ISS1:1OF1	p32723_1	20/03/2014	p32723_1.cpl	NO
116	wi01108828	ISS1:1OF1	p32831_1	20/03/2014	p32831_1.cpl	NO
117	wi01104473	ISS1:1OF1	p32818_1	20/03/2014	p32818_1.cpl	NO
118	wi01079444	ISS1:1OF1	p32564_1	20/03/2014	p32564_1.cpl	NO
119	wi01109251	ISS1:1OF1	p32827_1	20/03/2014	p32827_1.cpl	NO
120	wi01092443	ISS1:1OF1	p32676_1	20/03/2014	p32676_1.cpl	NO
121	wi01099292	ISS1:1OF1	p32886_1	20/03/2014	p32886_1.cpl	NO
122	wi01104867	ISS1:1OF1	p32828_1	20/03/2014	p32828_1.cpl	NO
123	wi01080963	ISS1:1OF1	p32626_1	20/03/2014	p32626_1.cpl	YES
124	wi01065115	ISS1:1OF1	p32523_1	20/03/2014	p32523_1.cpl	NO
125	wi01081510	ISS1:1OF1	p32582_1	20/03/2014	p32582_1.cpl	NO
126	wi01110593	ISS1:1OF1	p32849_1	20/03/2014	p32849_1.cpl	NO
127	wi01099606	iss1:1of1	p32713_1	20/03/2014	p32713_1.cpl	NO
128	wi01123389	ISS1:1OF1	p33045_1	20/03/2014	p33045_1.cpl	NO
129	wi01072062	ISS1:1OF1	p32776_1	20/03/2014	p32776_1.cpl	NO
130	wi01076654	ISS1:1OF1	p32529_1	20/03/2014	p32529_1.cpl	NO
131	WI01092793	ISS1:1OF1	p32699_1	20/03/2014	p32699_1.cpl	NO
132	wi01128596	ISS1:1OF1	p33000_1	20/03/2014	p33000_1.cpl	NO
133	wi01090535	ISS1:1OF1	p32519_1	20/03/2014	p32519_1.cpl	NO
134	wi01127447	ISS1:1OF1	p32990_1	20/03/2014	p32990_1.cpl	NO
135	wi01132244	ISS1:1OF1	p33041_1	20/03/2014	p33041_1.cpl	NO
136	wi01126704	ISS1:1OF1	p32980_1	20/03/2014	p32980_1.cpl	NO
137	wi01093118	ISS1:1OF1	p32496_1	20/03/2014	p32496_1.cpl	NO
138	wi01108262	ISS1:1OF1	p32865_1	20/03/2014	p32865_1.cpl	YES
139	wi01098433	ISS1:1OF1	p32736_1	20/03/2014	p32736_1.cpl	NO
140	wi01115807	ISS1:1OF1	p32895_1	20/03/2014	p32895_1.cpl	YES
141	wi01072366	ISS1:1OF1	p32488_1	20/03/2014	p32488_1.cpl	NO
142	wi01136698	ISS1:1OF1	p33057_1	20/03/2014	p33057_1.cpl	NO
143	wi01119086	ISS1:1OF1	p32917_1	20/03/2014	p32917_1.cpl	NO
144	wi01132204	ISS1:1OF1	p32501_1	20/03/2014	p32501_1.cpl	NO
145	wi01058378	ISS1:1OF1	p32344_1	20/03/2014	p32344_1.cpl	NO
146	wi01088797	ISS1:1OF1	p32844_1	20/03/2014	p32844_1.cpl	NO
147	wi00937672	ISS1:1OF1	p31276_1	20/03/2014	p31276_1.cpl	NO
148	wi01098905	ISS1:1OF1	p32556_1	20/03/2014	p32556_1.cpl	NO
149	wi01120705	ISS1:1OF1	p32930_1	20/03/2014	p32930_1.cpl	NO
150	wi01120406	ISS1:1OF1	p32956_1	20/03/2014	p32956_1.cpl	NO
151	wi01083896	ISS1:1OF1	p32937_1	20/03/2014	p32937_1.cpl	NO
152	wi01130815	ISS1:1OF1	p33017_1	20/03/2014	p33017_1.cpl	NO
153	wi01113374	ISS1:1OF1	p32874_1	20/03/2014	p32874_1.cpl	NO
154	wi01102168	ISS1:1OF1	p32738_1	20/03/2014	p32738_1.cpl	NO
155	wi01104627	ISS1:1OF1	p32819_1	20/03/2014	p32819_1.cpl	NO
156	wi01137003	ISS1:1OF1	p33053_1	20/03/2014	p33053_1.cpl	NO
157	wi01093071	ISS1:1OF1	p32701_1	20/03/2014	p32701_1.cpl	NO
158	wi01068751	ISS1:1OF1	p32445_1	20/03/2014	p32445_1.cpl	NO
159	wi01134602	ISS1:1OF1	p32398_1	20/03/2014	p32398_1.cpl	NO
160	wi01102093	ISS1:1OF1	p32760_1	20/03/2014	p32760_1.cpl	NO
161	wi01101969	ISS1:1OF1	p32726_1	20/03/2014	p32726_1.cpl	NO
162	wi01133106	ISS1:1OF1	p33032_1	20/03/2014	p33032_1.cpl	NO
163	wi01070279	ISS1:1OF1	p32262_1	20/03/2014	p32262_1.cpl	NO
164	wi01107601	ISS1:1OF1	p32970_1	20/03/2014	p32970_1.cpl	NO
165	wi01088915	ISS1:1OF1	p32638_1	20/03/2014	p32638_1.cpl	NO
166	wi01130348	ISS1:1OF1	p33014_1	20/03/2014	p33014_1.cpl	NO
167	wi01077639	ISS1:1OF1	p32883_1	20/03/2014	p32883_1.cpl	NO
168	wi01125238	ISS1:1OF1	p32971_1	20/03/2014	p32971_1.cpl	NO
169	wi01000087	ISS1:1OF1	p32014_1	20/03/2014	p32014_1.cpl	NO
170	wi01119100	ISS1:1OF1	p32925_1	20/03/2014	p32925_1.cpl	NO
171	wi01132902	ISS1:1OF1	p33028_1	20/03/2014	p33028_1.cpl	NO
172	wi01053950	ISS1:1OF1	p32654_1	20/03/2014	p32654_1.cpl	YES
173	wi01082824	ISS1:1OF1	p32467_1	20/03/2014	p32467_1.cpl	NO
174	wi01109345	ISS1:1OF1	p32830_1	20/03/2014	p32830_1.cpl	NO
175	wi01073725	ISS1:1OF1	p32552_1	20/03/2014	p32552_1.cpl	NO

176	wi01103142	ISS1:1OF1	p32778_1	20/03/2014	p32778_1.cpl	NO
177	wi01099810	ISS1:1OF1	p32796_1	20/03/2014	p32796_1.cpl	NO
178	wi01134354	ISS1:1OF1	p33031_1	20/03/2014	p33031_1.cpl	NO
179	wi01127527	ISS1:1OF1	p32988_1	20/03/2014	p32988_1.cpl	YES
180	wi01095255	ISS1:1OF1	p33027_1	20/03/2014	p33027_1.cpl	NO
181	wi01121374	ISS1:1OF1	p31107_1	20/03/2014	p31107_1.cpl	NO
182	wi01102475	ISS1:1OF1	p32782_1	20/03/2014	p32782_1.cpl	YES
183	wi01120458	ISS1:1OF1	p32929_1	20/03/2014	p32929_1.cpl	NO
184	wi01118320	ISS1:1OF1	p32753_1	20/03/2014	p32753_1.cpl	NO
185	wi01133960	ISS1:1OF1	p33034_1	20/03/2014	p33034_1.cpl	NO
186	wi01075540	ISS1:1OF1	p32492_1	20/03/2014	p32492_1.cpl	NO
187	wi01112655	ISS1:1OF1	p32870_1	20/03/2014	p32870_1.cpl	NO
188	wi01106658	ISS1:1OF1	p32812_1	20/03/2014	p32812_1.cpl	NO
189	wi01021522	ISS1:1OF1	p32863_1	20/03/2014	p32863_1.cpl	NO
190	wi01089807	ISS1:1OF1	p32957_1	20/03/2014	p32957_1.cpl	NO
191	wi01083036	ISS1:1OF1	p32571_1	20/03/2014	p32571_1.cpl	NO
192	wi01102091	ISS1:1OF1	p32744_1	20/03/2014	p32744_1.cpl	YES
193	wi01104486	ISS1:1OF1	p32866_1	20/03/2014	p32866_1.cpl	NO
194	wi01119863	ISS1:1OF1	p32923_1	20/03/2014	p32923_1.cpl	NO
195	wi01071996	ISS1:1OF1	p32461_1	20/03/2014	p32461_1.cpl	NO
196	wi01094832	iss1:1of1	p32718_1	20/03/2014	p32718_1.cpl	NO
197	wi01115369	ISS1:1OF1	p32889_1	20/03/2014	p32889_1.cpl	NO
198	wi01137737	ISS1:1OF1	p33055_1	20/03/2014	p33055_1.cpl	NO
199	wi01081692	ISS1:1OF1	p32569_1	20/03/2014	p32569_1.cpl	NO
200	wi01065248	ISS1:1OF1	p32412_1	20/03/2014	p32412_1.cpl	NO
201	wi01132222	ISS1:1OF1	p33023_1	20/03/2014	p33023_1.cpl	NO
202	wi01127874	ISS1:1OF1	p25747_1	20/03/2014	p25747_1.cpl	NO
203	wi01118819	ISS1:1OF1	p32954_1	20/03/2014	p32954_1.cpl	NO
204	wi01096907	ISS1:1OF1	p32733_1	20/03/2014	p32733_1.cpl	NO
205	wi01111194	ISS1:1OF1	p32821_1	20/03/2014	p32821_1.cpl	NO
206	wi01113712	ISS1:1OF1	p32877_1	20/03/2014	p32877_1.cpl	NO
207	wi01100508	ISS1:1OF1	p32761_1	20/03/2014	p32761_1.cpl	NO
208	wi01096910	ISS1:1OF1	p32734_1	20/03/2014	p32734_1.cpl	NO
209	wi01071659	ISS1:1OF1	p32589_1	20/03/2014	p32589_1.cpl	NO
210	wi01075149	ISS1:1OF1	p32475_1	20/03/2014	p32475_1.cpl	NO
211	wi01097166	ISS1:1OF1	p32878_1	20/03/2014	p32878_1.cpl	NO
212	wi01068922	ISS1:1OF1	p32454_1	20/03/2014	p32454_1.cpl	NO
213	wi01127738	ISS1:1OF1	p32993_1	20/03/2014	p32993_1.cpl	NO
214	wi01102296	ISS1:1OF1	p32780_1	20/03/2014	p32780_1.cpl	NO
215	wi01076948	ISS1:1OF1	p32526_1	20/03/2014	p32526_1.cpl	YES
216	wi01088055	ISS1:1OF1	p32607_1	20/03/2014	p32607_1.cpl	NO
217	wi01114695	ISS1:1OF1	p32885_1	20/03/2014	p32885_1.cpl	NO
MDP>LAST SUCCESSFUL MDP REFRESH :2014-03-20 09:14:46(Local Time)						
MDP>USING DEPLIST ZIP FILE DOWNLOADED :2014-03-20 04:55:58(est)						

Appendix B

Avaya Communication Server 1000E Route for SIP Line Gateway

LD 21

```
REQ: prt
TYPE: rdb
CUST 0
ROUT 40

TYPE RDB
CUST 00
ROUT 40
DES SIPL
TKTP TIE
M911P NO
ESN NO
RPA NO
CNVT NO
SAT NO
RCLS EXT
VTRK YES
ZONE 00040
PCID SIPL
CRID NO
NODE 111
DTRK NO
ISDN YES
    MODE ISLD
    DCH 1
    IFC SL1
    PNI 00000
    NCNA YES
    NCRD NO
    FALT NO
    CTYP UKWN
    INAC NO
    ISAR NO
    DAPC NO
MBXR NO
MBXOT NPA
MBXT 0
PTYP ATT
CNDP UKWN
AUTO NO
DNIS NO
DCDR NO
ICOG IAO
SRCH LIN
TRMB YES
STEP
ACOD 8040
TCPP NO
PII NO
AUXP NO
TARG
CLEN 1
BILN NO
OABS
INST
```

IDC NO
DCNO 0 *
NDNO 0
DEXT NO
ANTK
SIGO STD
STYP SDAT
MFC NO
ICIS YES
OGIS YES
PTUT 0
TIMR ICF 1920
OGF 1920

PAGE 002

EOD 13952
LCT 256
DSI 34944
NRD 10112
DDL 70
ODT 4096
RGV 640
GTO 896
GTI 896
SFB 3
PRPS 800
NBS 2048
NBL 4096

IENB 5
TFD 0
RTD 12
VSS 0
VGD 6
EESD 1024
SST 5 0
DTD NO
SCDT NO
2 DT NO
NEDC ORG
FEDC ORG
CPDC NO
DLTN NO
HOLD 02 02 40
SEIZ 02 02
SVFL 02 02
DRNG NO
CDR NO
NATL YES
SSL
CFWR NO
IDOP NO
VRAT NO
MUS NO
PANS YES
MANO NO
FRL 0 0
FRL 1 0
FRL 2 0
FRL 3 0

```
FRL 4 0
FRL 5 0
FRL 6 0
FRL 7 0
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TDET NO
TTBL 0
ATAN NO
OHTD NO
PLEV 2
OPR NO
ALRM NO
ART 0
PECL NO
```

```
PAGE 003
```

```
DCTI 0
TIDY 1012 40
ATRR NO
TRRL NO
SGRP 0
CCBA NO
ARDN NO
CTBL 0
ANIE 0
CAC_CIS 3
AACR NO
```

Avaya Communication Server 1000E D-Channel for SIP line Gateway

LD 22

```
REQ prt
TYPE adan dch 1
```

```
ADAN      DCH 1
  CTYP DCIP
  DES  SIPL
  USR  ISLD
  ISLM 4000
  SSRC 3700
  OTBF 32
  NASA NO
  IFC  SL1
  CNEG 1
  RLS  ID 25
  RCAP ND2
  MBGA NO
  H323
    OVLR NO
    OVLS NO
```

Avaya Communication Server 1000E Trunk Channel for SIP line Gateway

LD 20

```
DES  SIPL
TN   100 0 01 00  VIRTUAL
TYPE IPTI
CDEN 8D
CUST 0
XTRK VTRK
ZONE 00040
TIMP 600
BIMP 600
AUTO_BIMP NO
NMUS NO
TRK  ANLG
NCOS 0
RTMB 40 1
CHID 1
TGAR 0
STRI/STRO IMM IMM
SUPN YES
AST  NO
IAPG 0
CLS  UNR DIP CND ECD WTA LPR APN THFD XREP SPCD MSBT
      P10 NTC MID
TKID
AACR NO
DATE 28 AUG 2013
```

©2014 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.