AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Capita Secure Information Solutions DS3000 with Avaya Aura® Contact Center R6.4 and Avaya Communication Server 1000E R7.6 using a Lineside E1 Connection – Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning Capita Secure Information Solutions DS3000 to interoperate with Avaya Aura® Contact Center R6.4 and Avaya Communication Server 1000E R7.6 using a Lineside E1 card.

Readers should pay particular attention to the scope of testing as outlined in Section 2.1, as well as observations noted in Section 2.2 to ensure that their own use cases are adequately covered by this scope and results.

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.

PG; Reviewed:
SPOC 10/3/2014

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.

1 of 49
DS3000_AACC64

1. Introduction

These Application Notes describe the configuration steps for provisioning DS3000 from Capita Secure Information Solutions to interoperate with Avaya Aura® Contact Center R6.4 connected to an Avaya Communication Server 1000E R7.6 using the Application Module Link (AML). The DS3000 is an Integrated Communication Control System that is used by emergency service customers for answering 999/112 calls and then from the same application using radio communication (TETRA digital radio or analogue PMR) to pass details to mobile resources.

As a radio dispatch deployment with basic PTN/PSTN the DS3000 acts as an end PBX and performs call prioritisation and distribution to DS3000 operators as defined by the profile in which they have logged in to the DS3000 application. In this type of configuration the DS3000 has two primary connections to the Avaya Solution, a TDM connection to a Lineside E1 card on the Avaya Communication Server 1000E (CS1000E) and a .net connection to the Avaya Aura® Contact Center. Control of the Lineside E1 agents is achieved via the .net connection to the Communication Control Toolkit (CCT) module on the Avaya Aura® Contact Center.

2. General Test Approach and Test Results

The interoperability compliance testing evaluates the ability of Capita's DS3000 operators logged into the lineside E1 extensions as contact center agents to answer emergency calls presented to an emergency Control Directory Number (CDN) on the CS1000E. Calls placed to the emergency CDN are controlled by the contact center and are routed to the DS3000 agents by passing the caller to the Lineside E1 extensions.

Note: Non Automatic Call Distributed (ACD) calls that are destined for the DS3000 both locally and from the PSTN are routed to the DS3000 over SIP trunks using Session Manager, note this configuration is described in the Application Notes titled *Application Notes for Configuring Capita Secure Information Solutions DS3000 with Avaya Aura® Session Manager R6.3 and Avaya Communication Server 1000E R7.6 using SIP Trunks*.

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 interoperability compliance testing focuses on various technical testing scenarios to verify the usage of DS3000 with the Avaya solution. In addition, serviceability tests were also performed to assess the reliability and accuracy of the joint solution. The testing focused on the following types of calls:

- **Login/Logout Agents using DS3000** – Ensure agents can log in and out of the Lineside E1 channels or lines from the DS3000 Operators console.

- **ACD calls into the DS3000 Operators** – Ensure that ACD calls are correctly routed to the DS3000 operators.

- **Hold/transfer and conference functionality for ACD calls** - Verify that non ACD calls can be placed on hold and transferred and conferenced.

- **Calling to voicemail** – Verify that DTMF tones can be sent. Note that Avaya Callpilot was used as voicemail.

- **Failover testing** - Verify the behaviour of DS3000 application under different simulated LAN failure conditions on the Avaya platform.

2.2. Test Results

All Test Cases passed except for the following issues.

1. When an Avaya SIP phone calls into the CDN/Skillset the call is answered correctly but the DS3000 Operator cannot transfer/conference the caller. This is not the case for an Avaya UNIStim IP phone.

2. When a call is placed into the CDN/Skillset (Lineside E1 is in operation) and a transfer is initiated but not completed because the supervisor (consulted person) decides to hang up the call, once the initial call is terminated from either side the call is cleared on the Lineside E1 but the call still shows on CCT. This appears to be a Lineside E1 – CCT issue. A WI is opened with Avaya Support - **wi01186015: Consult transfer stuck in CCT**.

The following observation was also noted.

- FTTU is set on the Class of service (CLS) of each Lineside E1 TN. FTTU means Flexible Trunk to Trunk Connections Unrestricted and this creates trunk to trunk connections for both Conference and Transfer so that when calling in from the PSTN transfer across the SIP trunk is allowed.

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 Capita DS3000 product can be obtained as follows.

- Tel :   + 44 (0) 8456 041999
- Email: csis.info@capita.co.uk

3. Reference Configuration

Figure 1 shows the setup for compliance testing Capita's DS3000 with Contact Center R6.4 connecting to the CCT module in order to control agents logged into the Lineside E1 extensions on the CS1000E. ACD calls are passed through the Lineside E1 card where they can be answered by the DS3000 operators acting as Contact Center agents.
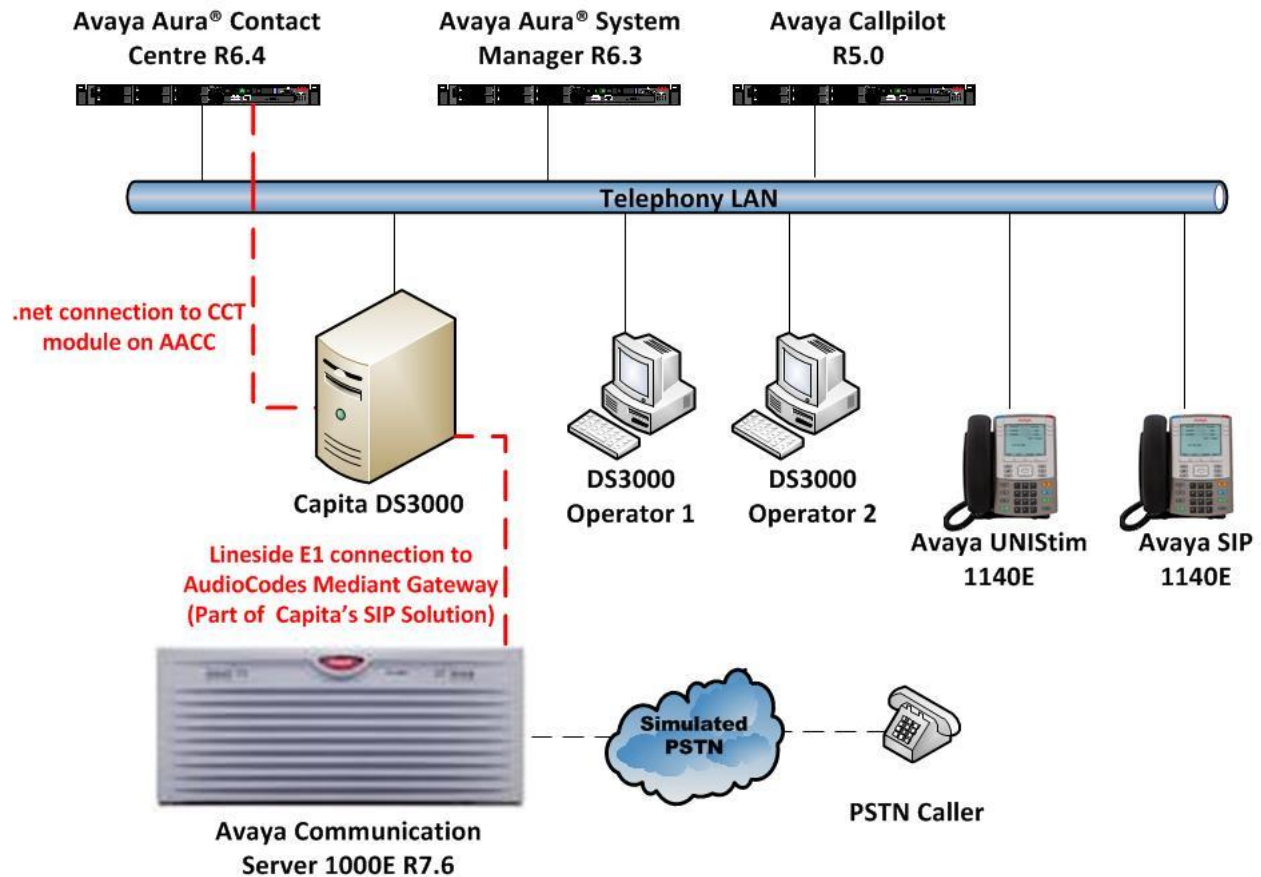

Figure 1: Connection of Capita DS3000 with Avaya Aura® Contact Center R6.4 and Avaya Communication Server 1000E R7.6

4. Equipment and Software Validated

The following equipment and software was used for the compliance test.

Device Description	Versions Tested
Avaya Aura® Contact Center running on an Windows 2008R2 Server	R6.3 (Service Pack 13)
Avaya Communication Server 1000E running on CPPM	R7.6 (See **Appendix A** for Patch details)
Avaya Aura® System Manager running Virtual Server	R6.3.9 [Build 6.3.0.8.5682-6.3.8.4414] [SW Update Rev 6.3.9.1.2482]
Avaya Call Pilot 600r Server	Avaya Call Pilot Version 5.00.41 Patch Line-up: CP50041SU08S CP500508G09C
Avaya 1140 UNIStim Deskphone	UNIStim V0625C8D
Avaya 1140 SIP Deskphone	SIP 04.00.12.04
Capita DS3000 Solution Kit (DSX Converged Versions 2013 R1 and later) - Aculab Dual Redundant SIP Server - Centricity V2 - AudioCodes Mediant 1000B	Release 2x Series V6.5.13 V3.21.14.1 V6.60A.228.011

5. Configure Avaya Communication Server 1000E

It is assumed that a fully functioning CS1000E is in place with the necessary licensing and with an ELAN connection to the Contact Center already in place. For further information on the configuration of CS1000E please see reference [1] in **Section 11** of these Application Notes. "Putty" is used to administer the CS1000E. Using Putty, open an SSH Session to the Node IP address of the CS1000E, log in to the CS1000E Linux application using the appropriate credentials and type **cslogin** (not shown) to gain access to the PBX command line.

Note: A simulated PSTN connection was present on the CS1000E in the form of a QSIG ISDN connection, the configuration of which is outside the scope of these Application Notes.

5.1. Create Automatic Call Distribution Queue

An Automatic Call Distribution (ACD) queue must be created in order to log in the Lineside E1 agents. Enter overlay 23 to add a new **ACD** by typing **LD 23** at the **>** prompt. Ensure the following are set. Note that the default setting is accepted by pressing return at each prompt.

```
Prompt          Response        Description
>               LD 23           Enter Overlay 23
REQ             new             new/add
CUST            0               Customer number (default is 0)
TYPE            ACD             Automatic Call Distribution
ACDN            1650            ACD Number (any unused number)
MAXP            10              Maximum number of persons in the Queue (10)
.........                       Return until next prompt
NCFW            3200            Night call forward number (call 3200 if out of service)]
.........                       Return until next prompt
HMSB            YES             Hold Make Set Busy (Allowed)
.........                       Return until next prompt
HOML            YES             Headset Or MSB key Log Out (Allowed)
.........                       Return until next prompt
NRAC            YES             Enable Not Ready Activity Codes
Return to end
```

5.2. Create a Controlled Directory Number to route calls

A Controlled Directory Number (CDN) must be created in order to route emergency calls to the Lineside E1 agents. Enter overlay 23 to add a new **CDN** by typing **LD 23** at the > prompt. Ensure the **DFDN** is set to that of the ACD queue created in **Section 5.1**. Note that the default setting is accepted by pressing return at each prompt.

```
Prompt          Response        Description
>               LD 23           Enter Overlay 23
REQ             new             new/add
CUST            0               Customer number (default is 0)
TYPE            CDN             Controlled Directory Number
CDN             6100            ACD Number (any unused number)
.........                       Return until next prompt
DFDN            1650            Default DN is set to the ACD Queue created in Section 5.2
.........                       Return until next prompt
Return to end
```

5.3. Create Lineside E1 Agents

E1 lineside card switch settings are as follows:

- Lineside E1,S1:   Set all the dip switches to OFF
- Lineside E1,S2:   Set dip switch 3 to ON and set all the other dip switches to OFF

Lineside E1 Agents are created in overlay 20. For compliance testing three lineside E1 agents were created and the following TN's, DN's and position ID's were used.

	TNB	**DN**	**POSID**
•	4 0 10 0	3100	1113100
•	4 0 10 1	3101	1113101
•	4 0 10 3	3102	1113102
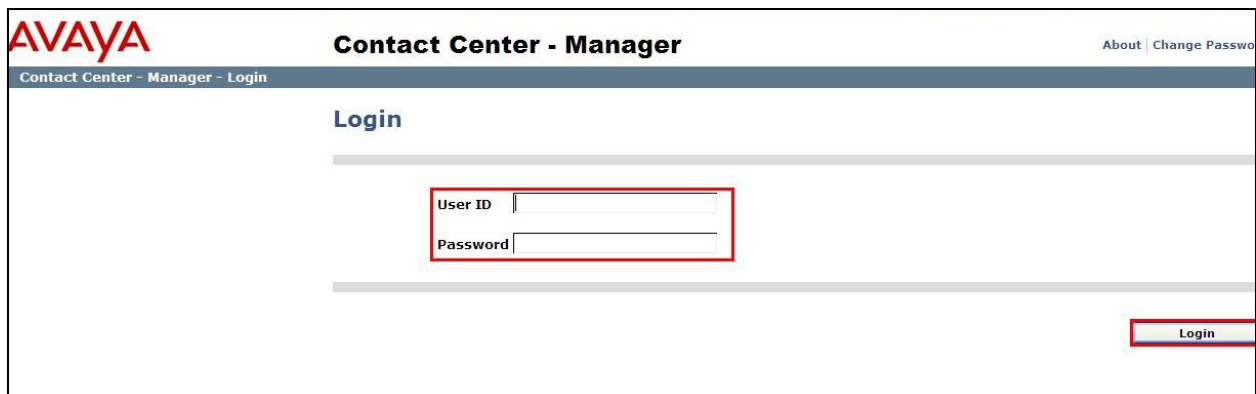
```
Prompt          Response      Description
>               LD 20         Enter Overlay 20
REQ             new           new/add
TYPE            500           "500" type set – (used for Lineside E1)
TNB             4 0 10 0      Loop Shelf Card Unit
DN              3100          Private Directory Number (any unused number)
AST             YES           Associate Set assignment
IAPG            1             Meridian Link Unsolicited Status Message (1 is on)
………                          Return until next prompt
CLS             UNR           Unrestricted (note this was only set for testing purposes)
                XFA           Transfer Allowed
                C6A           Conference Allowed
                CFXA          Call Forward External Allowed
                AGTA          ACD services for 500 type telephones allowed
                DDGA          DN display on other set Allowed.
                NAMA          Name display Allowed
                FTTU          Trunk to Trunk Connections unrestricted
………                          Return until next prompt
AACD            YES           Associate set (AST) ACD telephone
AACS            YES           Application acquired set
………                          Return until next prompt
FTR             ACD 1650 x    ACD Queue created in Section 5.1 with Position ID x
FTR             OSP 1         Enable answer and disconnect supervision for outgoing calls
FRT             ISP 255       Enable hook flash disconnect supervision with flash timer
Return to end
```

Note: A full printout of the TN and CDN can be found in **Appendix B**.

6. Configuration of Avaya Aura® Contact Center

It is assumed that a fully functioning Contact Center is already in operation and so these Application Notes do not go through the setup of the Contact Center from the beginning but rather what steps are required in order to ensure that calls are routed to the DS3000 agents and that DS3000 agents can log in to Lineside E1 extensions and take control. For more information on the setup and configuration of Contact Center please refer to reference [2] in **Section 11** of these Application Notes.

Log in to the Contact Center by opening a web session (not shown) to the Contact Center server and enter the proper credentials and click on the **Login** button.
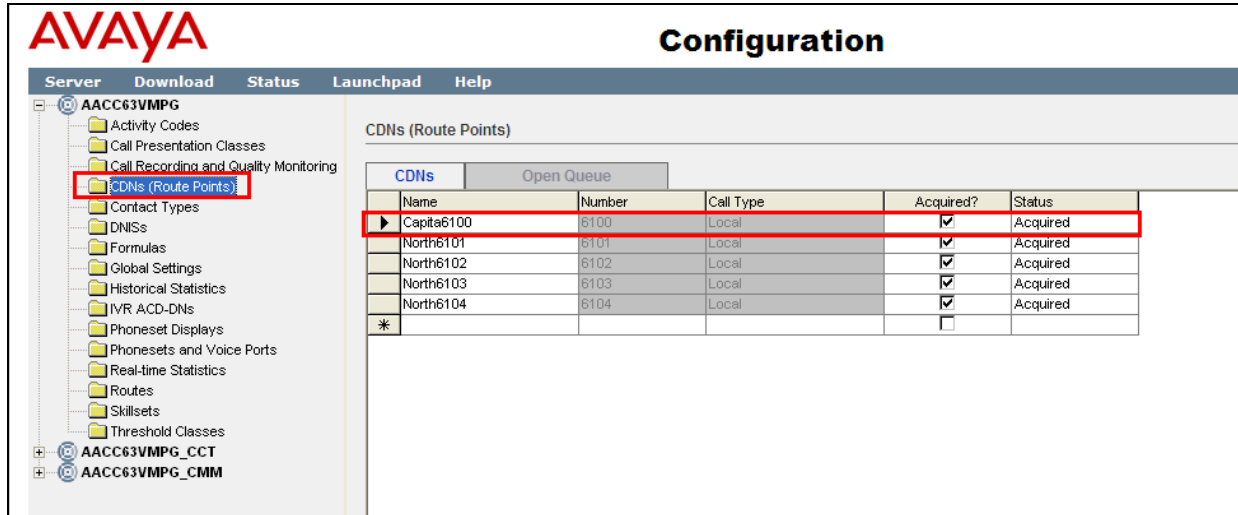
6.1. Contact Center Configuration

Select **Configuration** as highlighted below.

A CDN for emergency calls should be added in order to route the emergency calls to the agents. To add a CDN to the Contact Center click on **CDN's (Route Points)** in the left window and enter the CDN details in the right window ensure that **Acquired?** is clicked. Note this will be the same CDN as was created in **Section 5.2**.
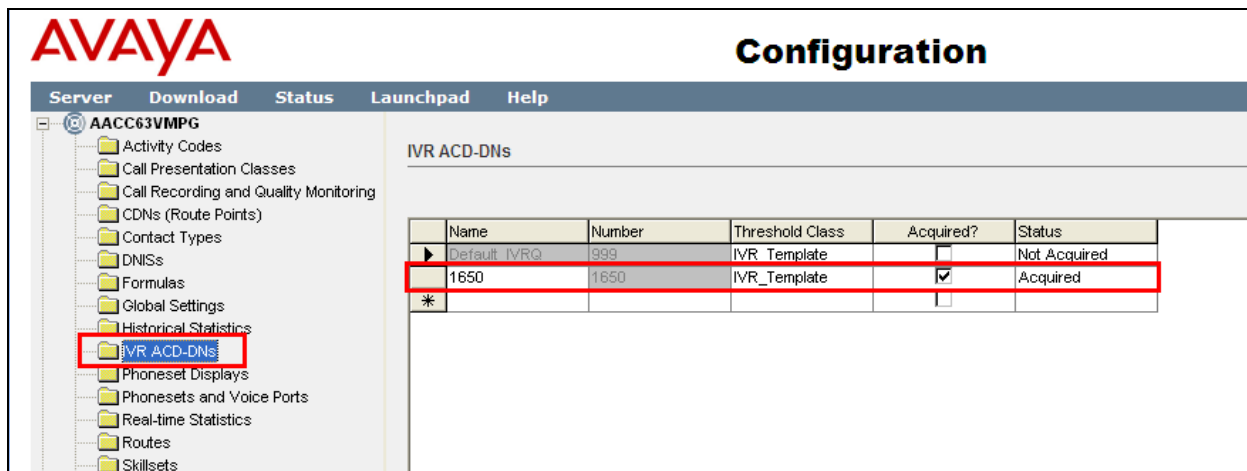
Click on **IVR ACD-DNs** in the left window and enter the ACD number that was created in **Section 5.1**.

To add the Lineside E1 extensions click on **Phonesets and Voice Ports** in the left window. Add the TN's that were created in **Section 5.3**.

In order to route the emergency calls to the agents, emergency skillsets must be added. Click on **Skillsets** in the left window and enter the information for the skillset in the right window.

6.2. Contact Center Agents

Select **Contact Center Management** shown below. All the Agent details are configured in this section.

Click on **Add** highlighted and select new (not shown). Enter a suitable name and **Login ID** for the new agent. Ensure that Voice is selected for the Contact Type (not shown) and add the skillset created in **Section 6.1** above. Click on **Submit** once all the details are entered correctly.

Note: The Lineside E1 DN associated with the agent created can be entered as the **Personal DN** as it has been observed that if a Lineside E1 call is cleared from the DS3000 whilst the call is held prior to transfer and before the consultative call digits are dialled, the Contact Centre call will be re-routed to the next available agent by the CS1000E. This routing will be based on the ACD queue associated with the Lineside E1 and may result in the call being presented to an agent who does not have the appropriate skills. A workaround for this is achieved by configuring Personal DN settings for each Contact Center Agent such that agents with compatible skillsets use a common **Personal DN** so that calls are routed to suitable logged on agents.

PG; Reviewed:
SPOC 10/3/2014

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.

11 of 49
DS3000_AACC64

6.3. Creating an Application for emergency routing

All routing changes are done using Orchestration Designer, this allows Applications or Scripts to be created and associated with a CDN or route point. The download and initial setup of Orchestration Designer is outside the scope of these Application Notes, for information on the setup and configuration of Orchestration Designer please refer to reference [2] in **Section 11** of these Application Notes.
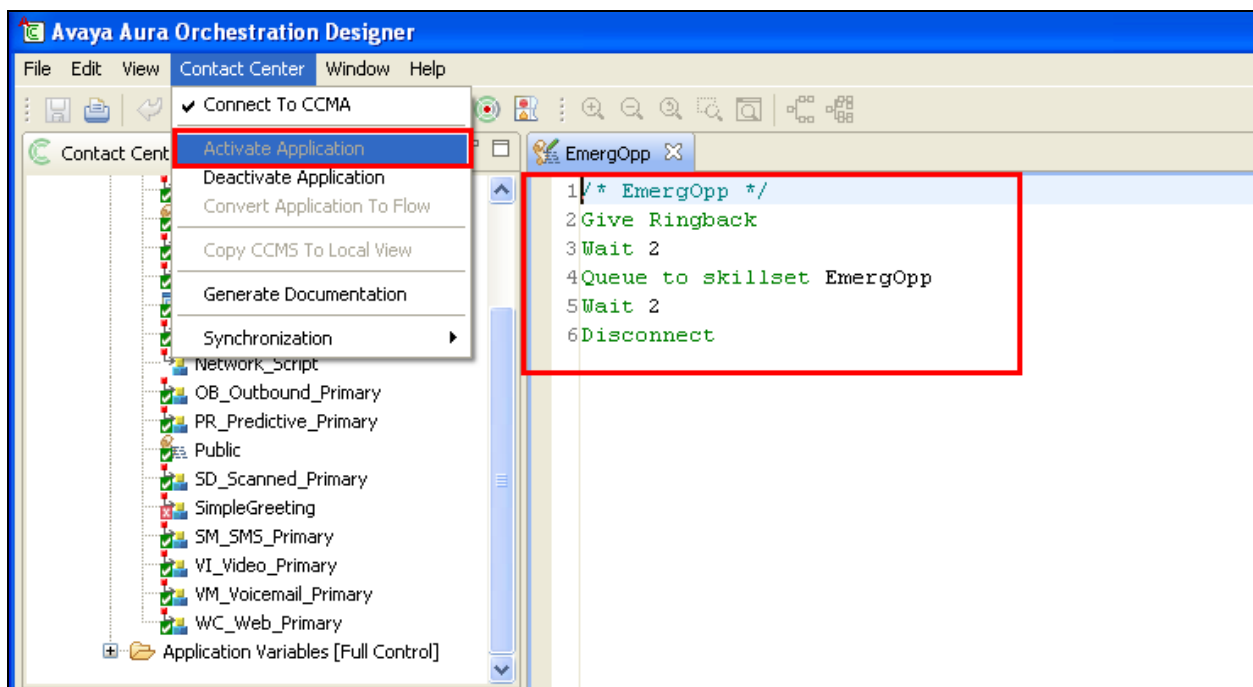
A new application was created for the routing of emergency calls and this is associated with the CDN created on the CS1000E in **Section 5.2**. Open Orchestration Designer (not shown) and **Connect to CCMA** as shown below.
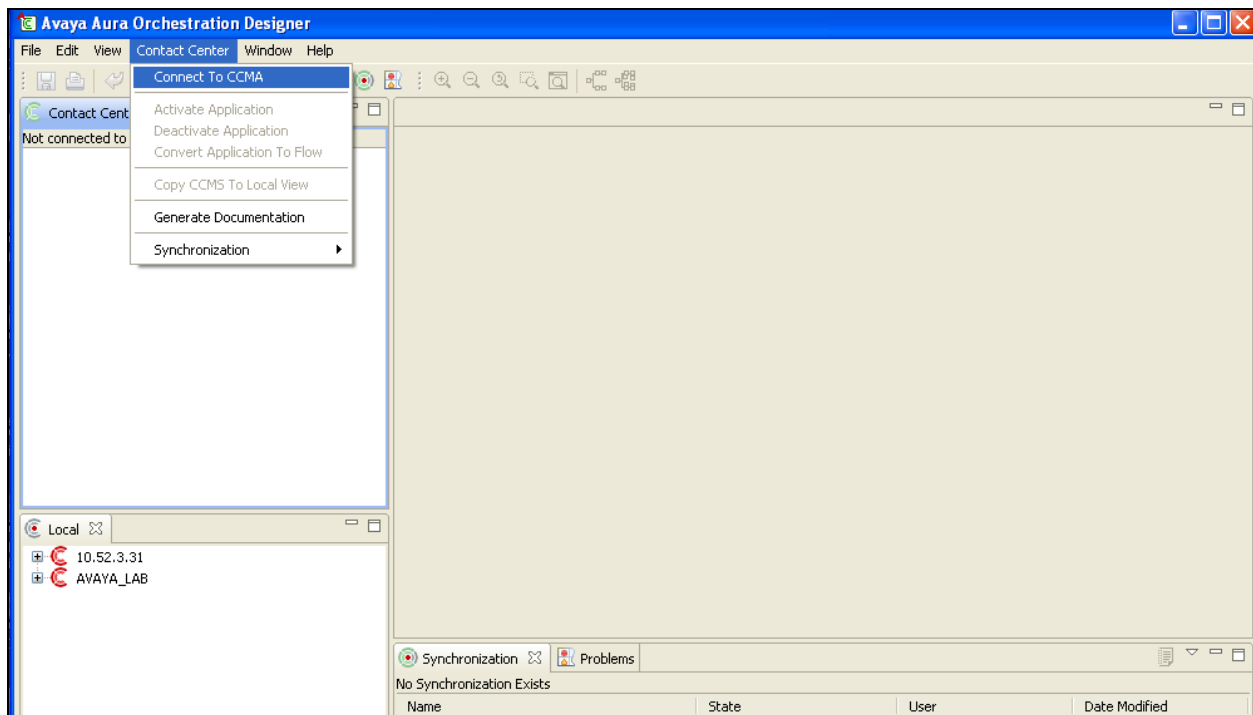
Navigate to **Applications** in the left window and right click and select **New → Application** as shown below.
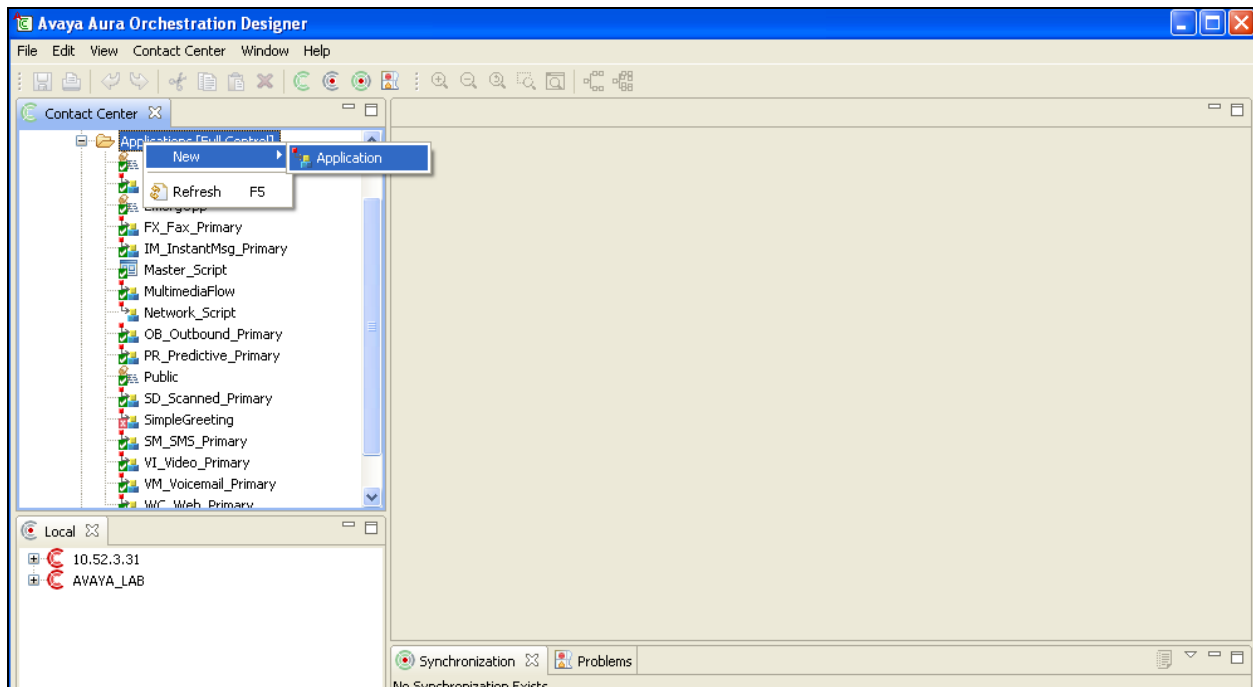

Below shows an example of a script used to route calls to a skillset. Once this is completed select **Contact Center** and **Activate Application** as shown below in order to make this active.

PG; Reviewed:
SPOC 10/3/2014

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.

13 of 49
DS3000_AACC64

6.3.1. Associate an Application with a CDN

In order to associate an application with a CDN, the master script must be opened as shown below. Double click on **Master_Script** in the left window. In the main window expand on **Application Manager Data → CDNs** select the required CDN and click on **Add** as shown below. Once this is selected a new window **Application Chooser** opens where the Application to be associated with this CDN is chosen as is shown below. Click on **OK** once this is done.
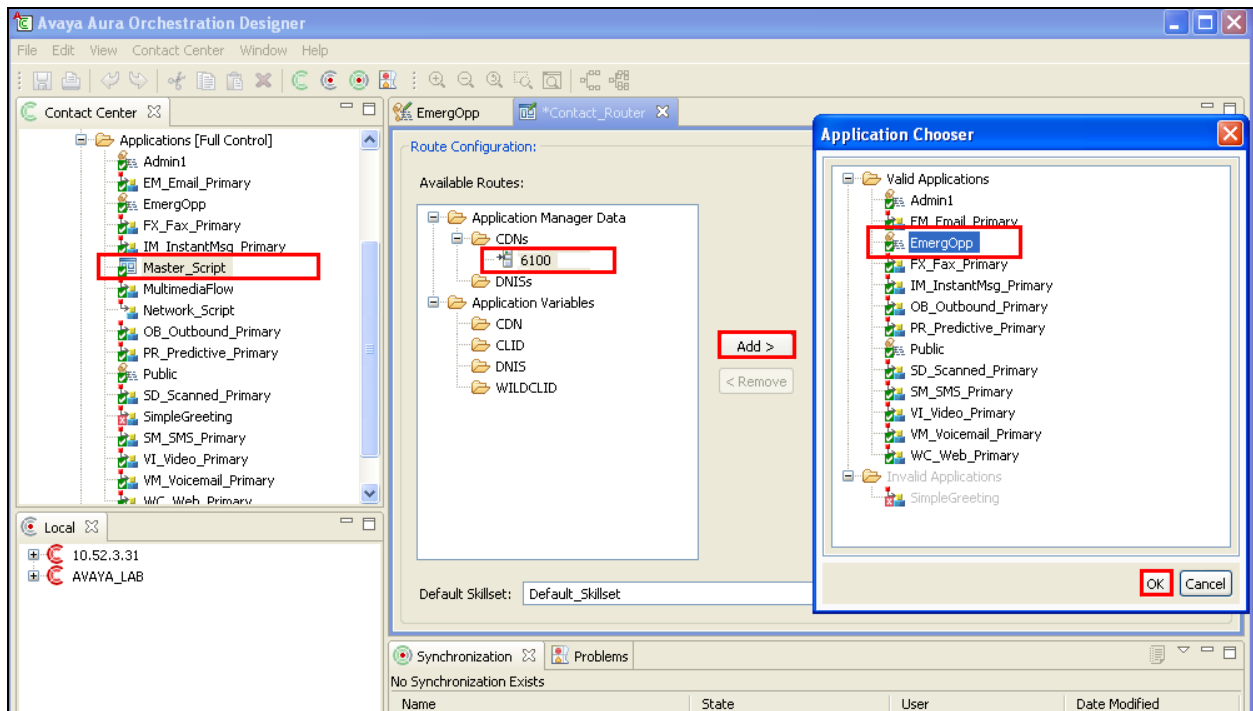
## 6.4. Import CS1000E Information to Communication Control Toolkit

From the CS1000E take a printout of the Lineside E1 channels and the CDN using the **prt** command in overlay 20. This printout should be saved to notepad so as these TN's can then be imported into CCT as a file, such as **CS1000E76LE1.txt**.

```
Prompt          Response        Description
>               LD 20           Enter Overlay 20
REQ             prt             Print
TYPE            TN              Print the Terminal Number (TN)
TN              4 0 10 0        Terminal Number 4 0 10 0
………            Return to end
```
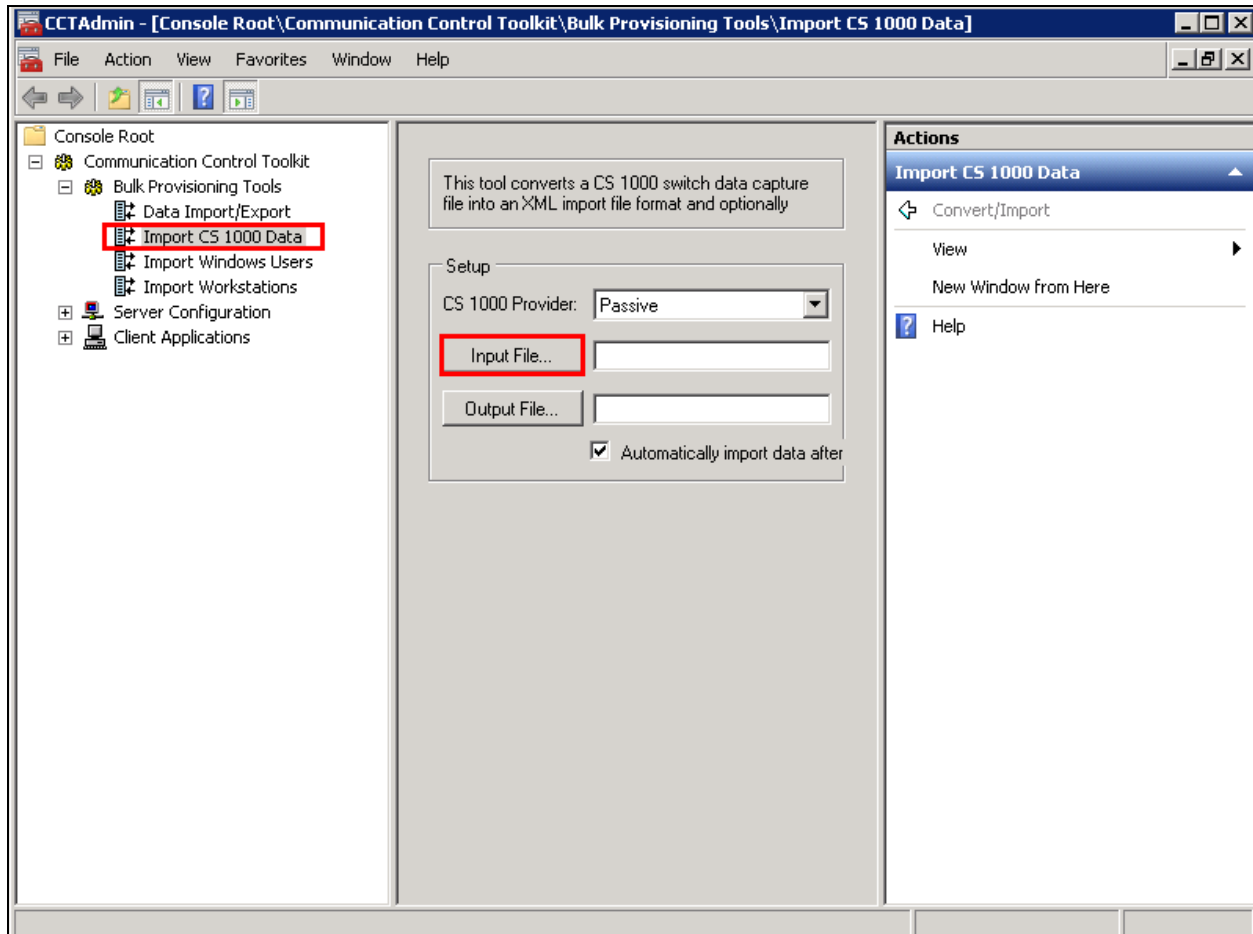
A printout of the CDN (in our example **6100**) is also required. Go to overlay 23 to print the **CDN** and ensure this is saved on the same file as above **CS1000E76LE1.txt**. A full printout of both a Lineside E1 channel and the CDN can be found in **Appendix B**.

```
Prompt          Response        Description
>               LD 23           Enter Overlay 23
REQ             prt             Print
TYPE            CDN             Print the Control Directory Number (CDN)
CUST            0               Customer 0
CDN             6100            CDN 6100
………            Return to end
```

From the CCT server navigate to **Start → Programs → CCT Console**.
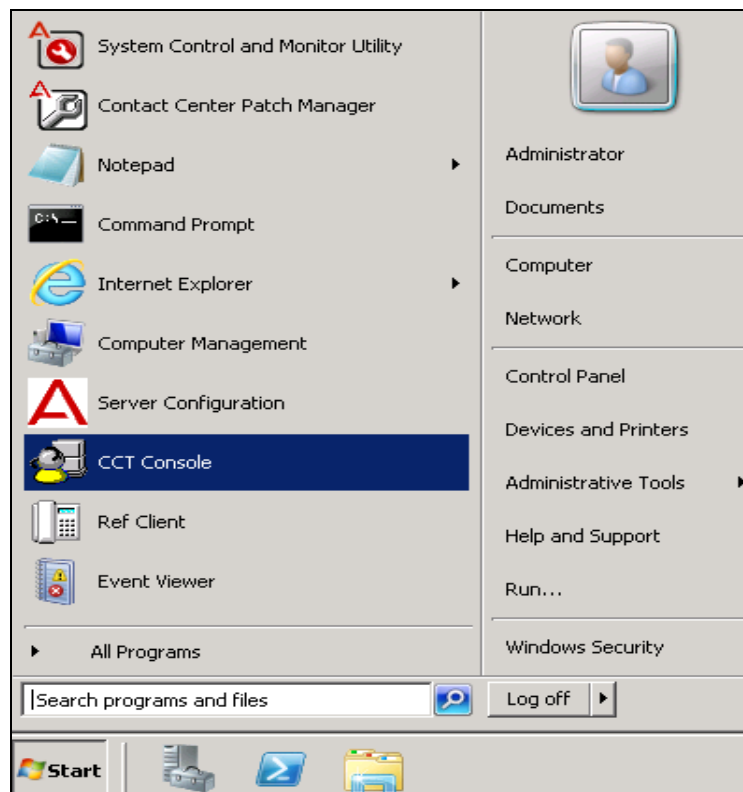
The **CCTAdmin** window is opened, in the left window click on **Import CS 1000 Data** and from the middle window click on **Input File…**

PG; Reviewed:
SPOC 10/3/2014

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.

16 of 49
DS3000_AACC64

Navigate to the location of the **CS1000E76LE1.txt** file that was created from the beginning of this **Section 6.4.**
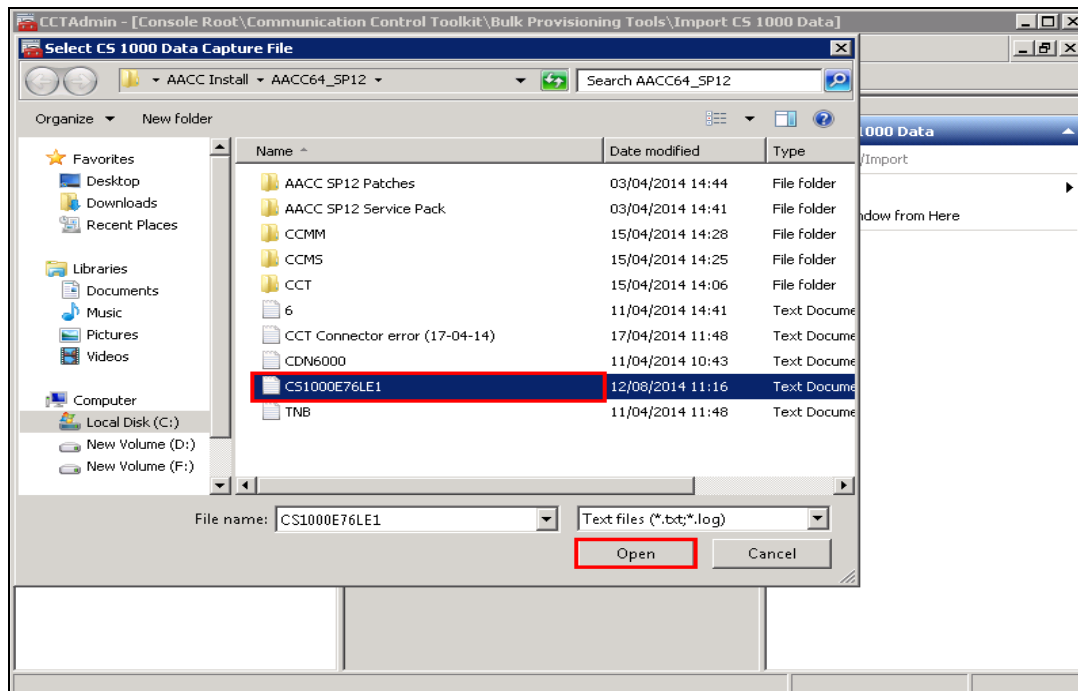

From the right window, click on **Convert/Import**, and in the main window the result of the import should be displayed as shown below where three TN's and one CDN was imported correctly.
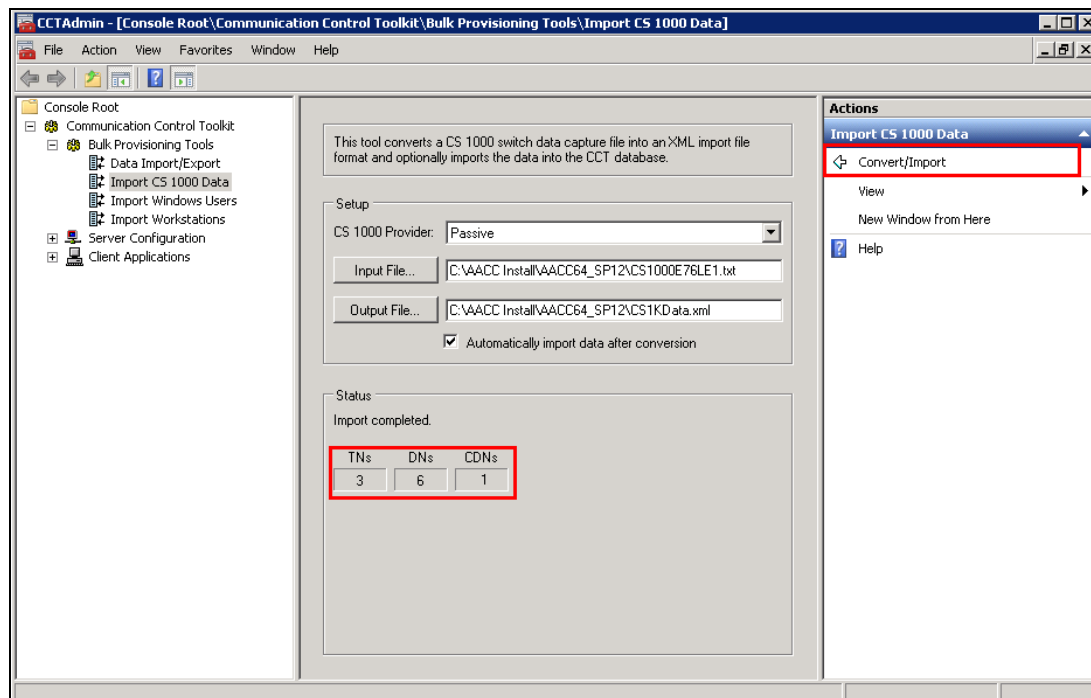
## 6.5. Configure CCT Users on the Contact Center Server

Navigate to **Computer Management**, (not shown) and select **Users** from the left window and right-click and select **New User**. Enter a suitable user name and password for this new user. Click on **Create** once this user information is entered. Any user that will be created in CCT must also be added here.
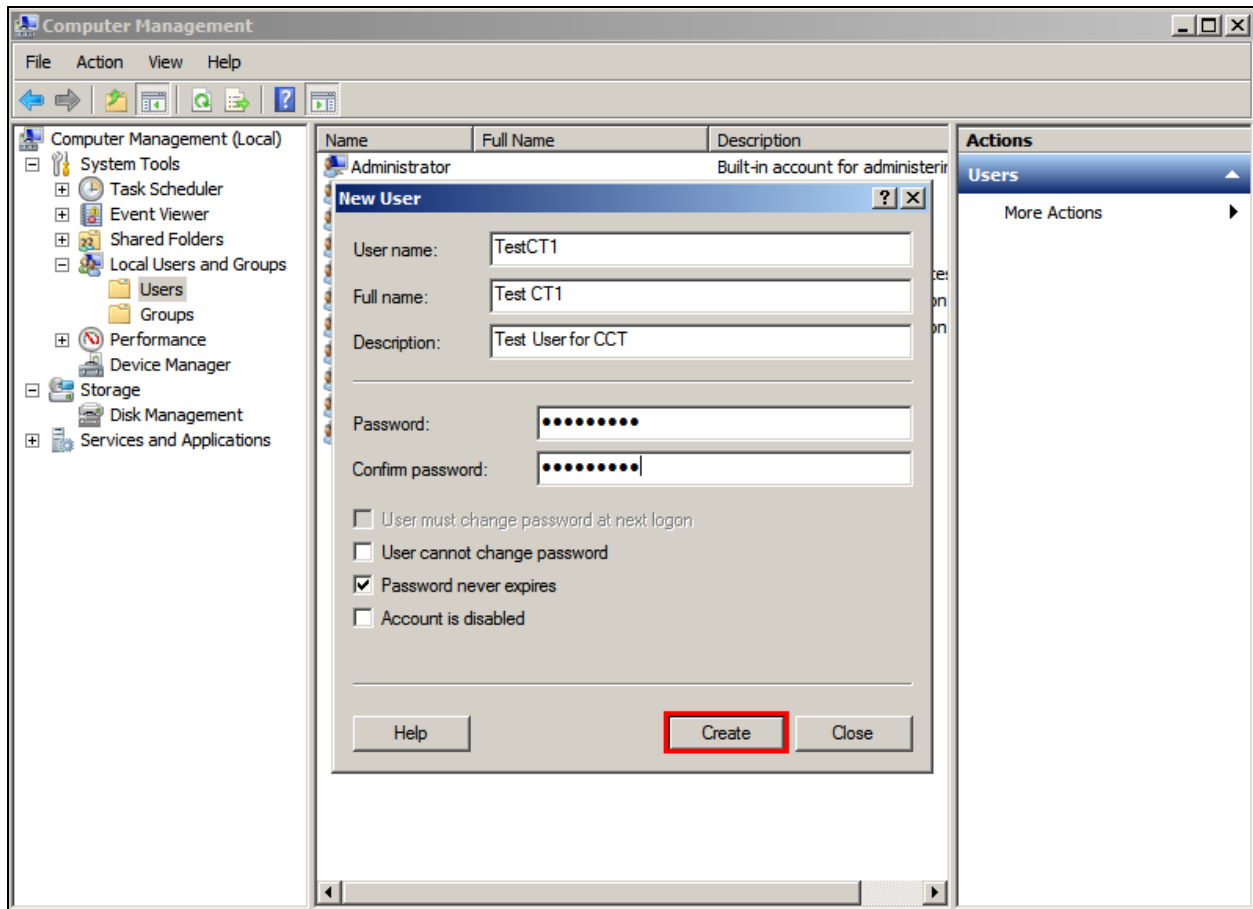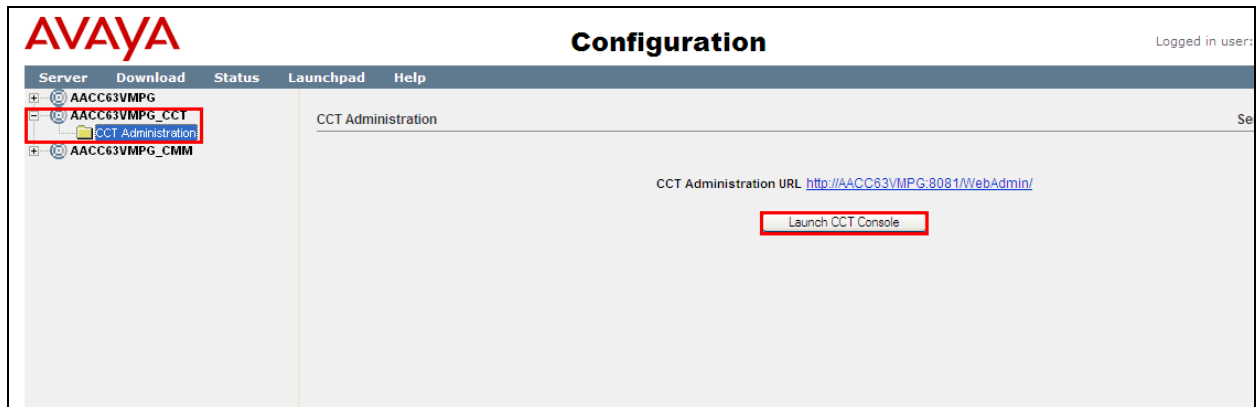
6.6. Configuring Communication Control Toolkit

One user is added to CCT in order to monitor the Lineside E1 channels and the CDN that were imported in **Section 6.4**.

In order to make changes in CCT navigate to configuration from **Launchpad** as shown below.
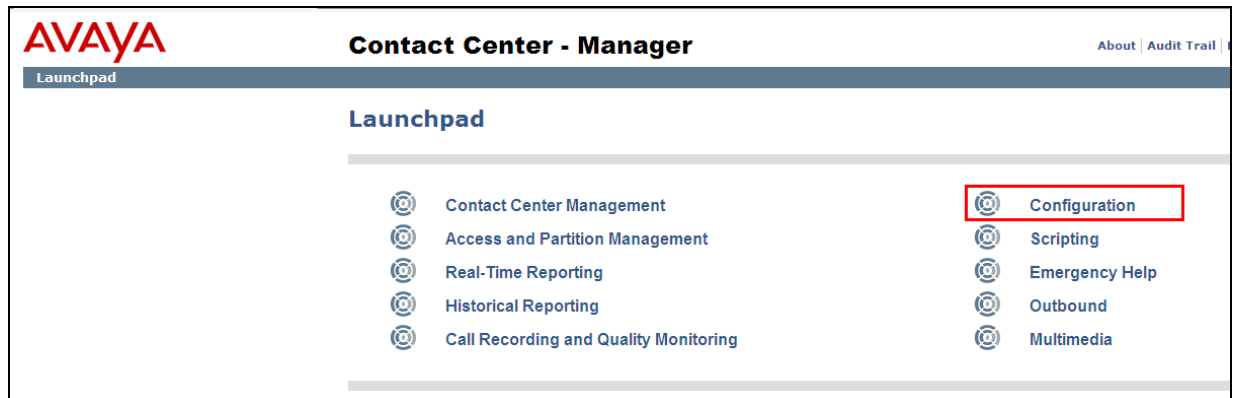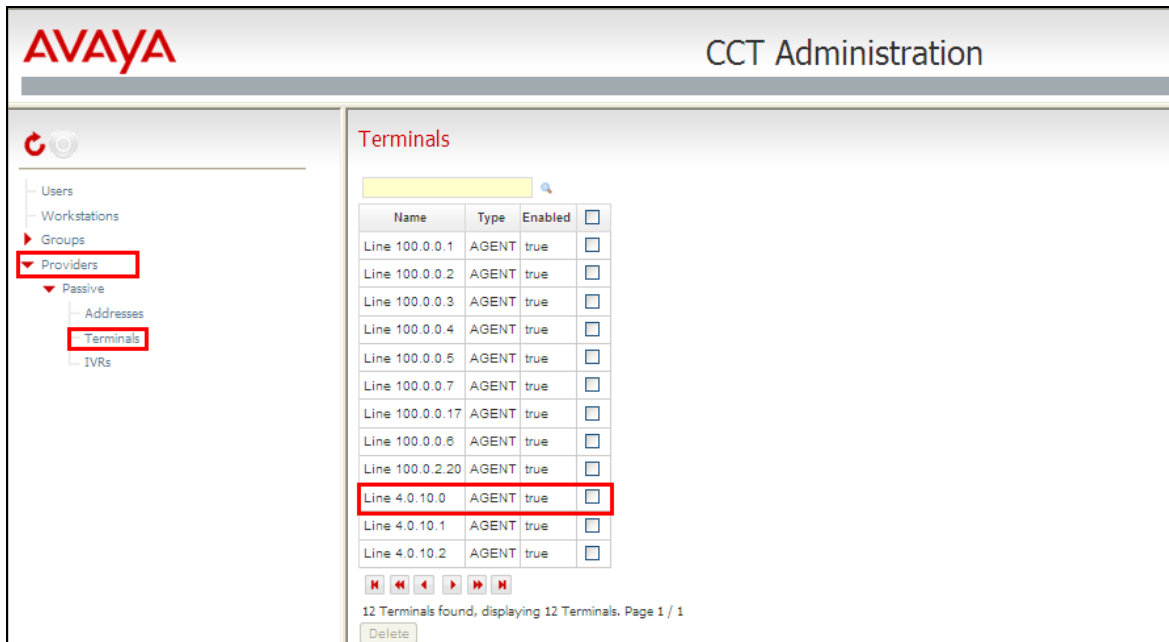

Once in **configuration**, open the CCT server in the left window and click on **Launch CCT Console** in the right window.
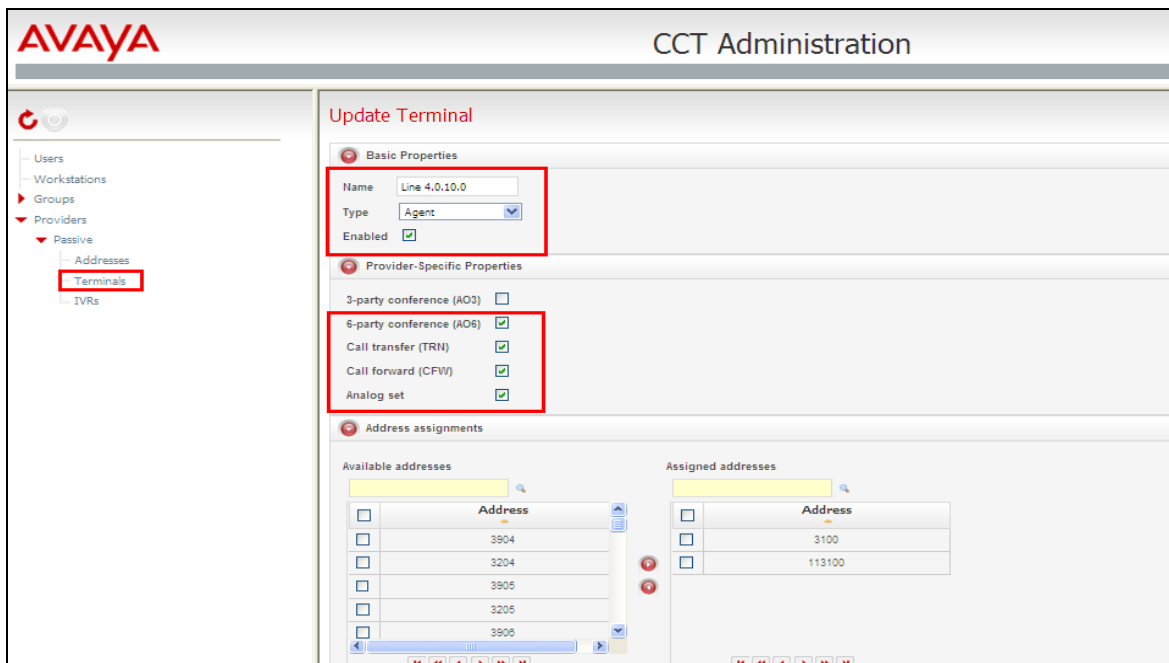
6.6.1. Configure Terminals

Navigate to **Providers → Passive → Terminals** in the left window. Click on each of the Lineside E1 channels separately.
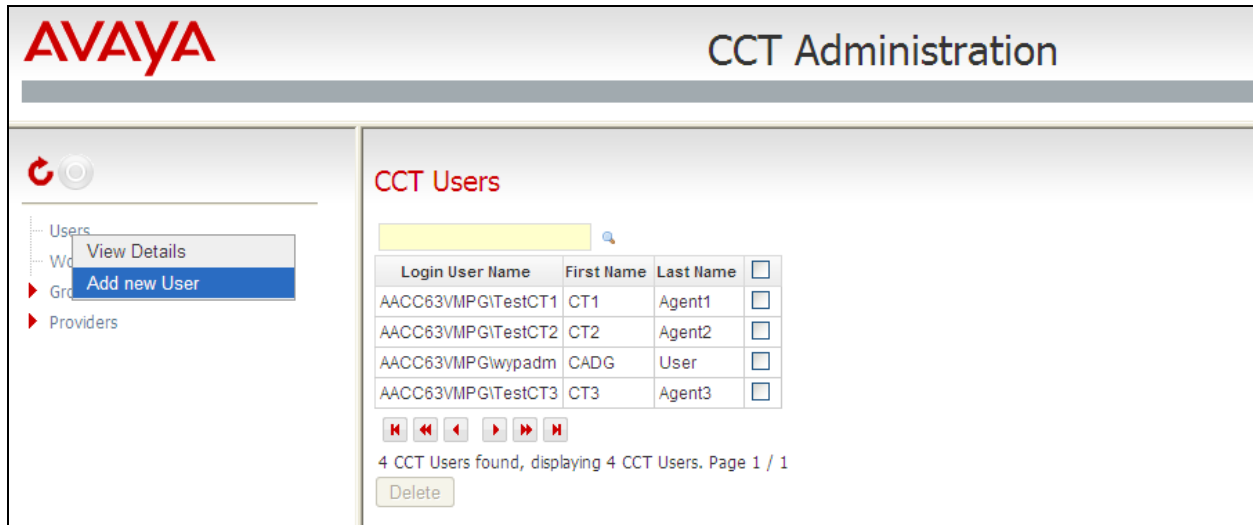

Ensure that the following are ticked, specifically **Analog set**.

6.6.2. Add CCT User

To add a new CCT User, right click on **Users** in the left window and select **Add new User**, as shown below.

Enter the user details, note these should be the same as those configured in **Section 6.5**. Open **Address Assignments** and include the CDN that was created in **Section 5.2**.

Note: Any CDN that is used to route calls to Capita agents will also need to be added to the **Address Assignments**.

PG; Reviewed:
SPOC 10/3/2014

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.

21 of 49
DS3000_AACC64
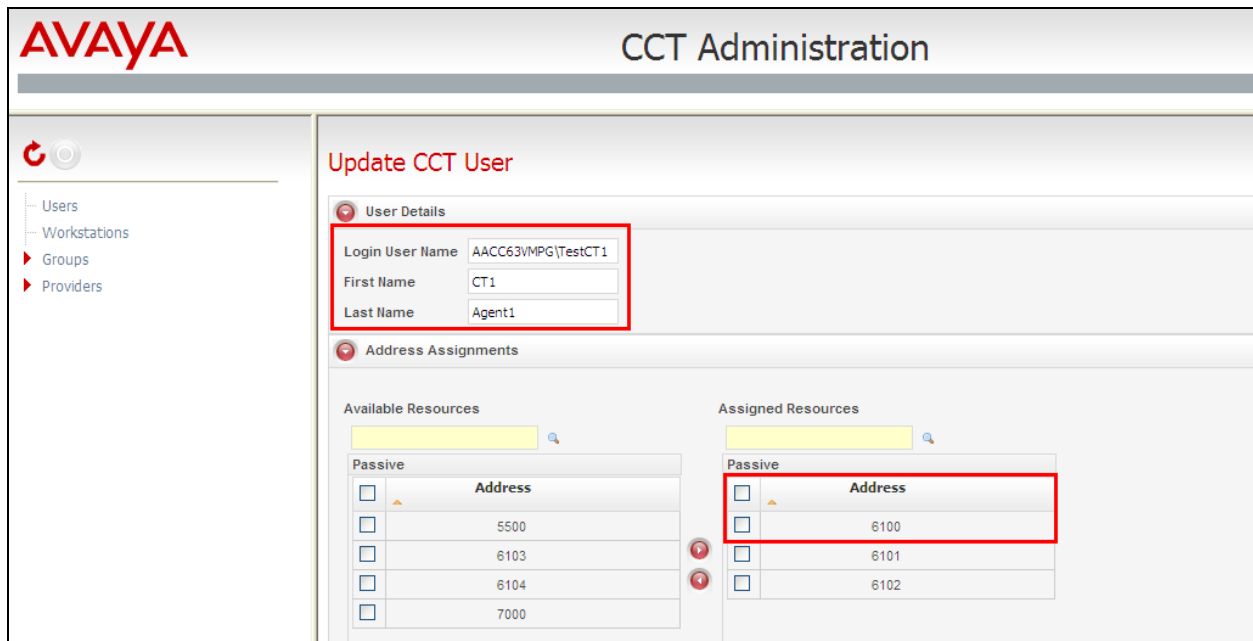
Scroll down and open **Terminal Assignments**. Ensure that the Lineside E1 TN's that were created in **Section 5.3** are associated with this user as shown below. Click on **Save** once this is completed.

PG; Reviewed:
SPOC 10/3/2014

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.

22 of 49
DS3000_AACC64

7. Configuration of AudioCodes Mediant 1000B Gateway

Although the AudioCodes gateway is a third-party product, it is a part of Capita's solution and must also be configured as a part of this solution. This box is responsible for the connection between the Avaya Lineside E1 card on the CS1000E and Capita's SIP stack on the DS3000 Server. Open a web browser and http to the AudioCodes IP address and enter the proper credentials into the authentication window as shown below and click **OK**.

Note: The AudioCodes Mediant 1000B Gateway was configured with latest Avaya Aura® Offsite Agent (AAOA) and so the CAS/E1 configuration should be as defined in AAOA Installation and Commissioning Guide Release 6.2. See **Section 11** for more details on this document.
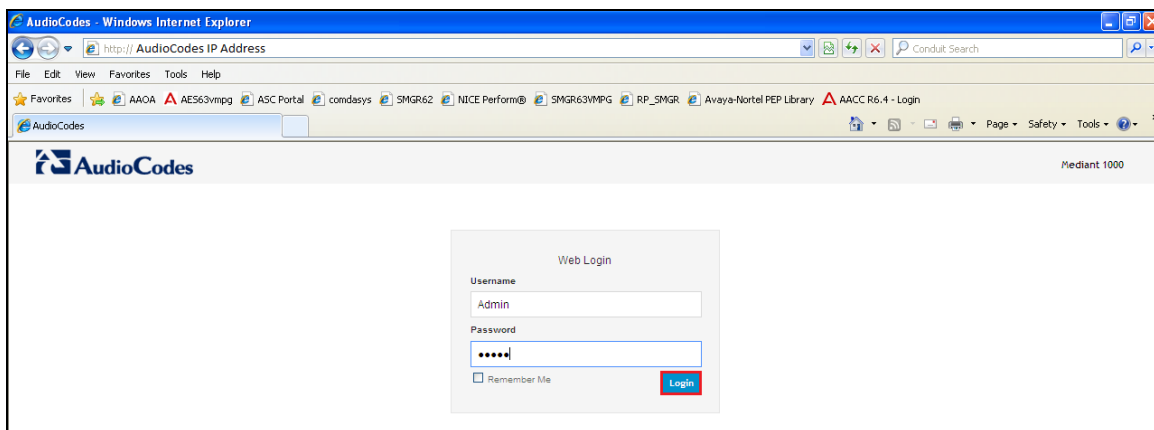
Once logged in correctly the following screen is shown. Select **Configuration** from the left window and select **Full**, highlighted below.
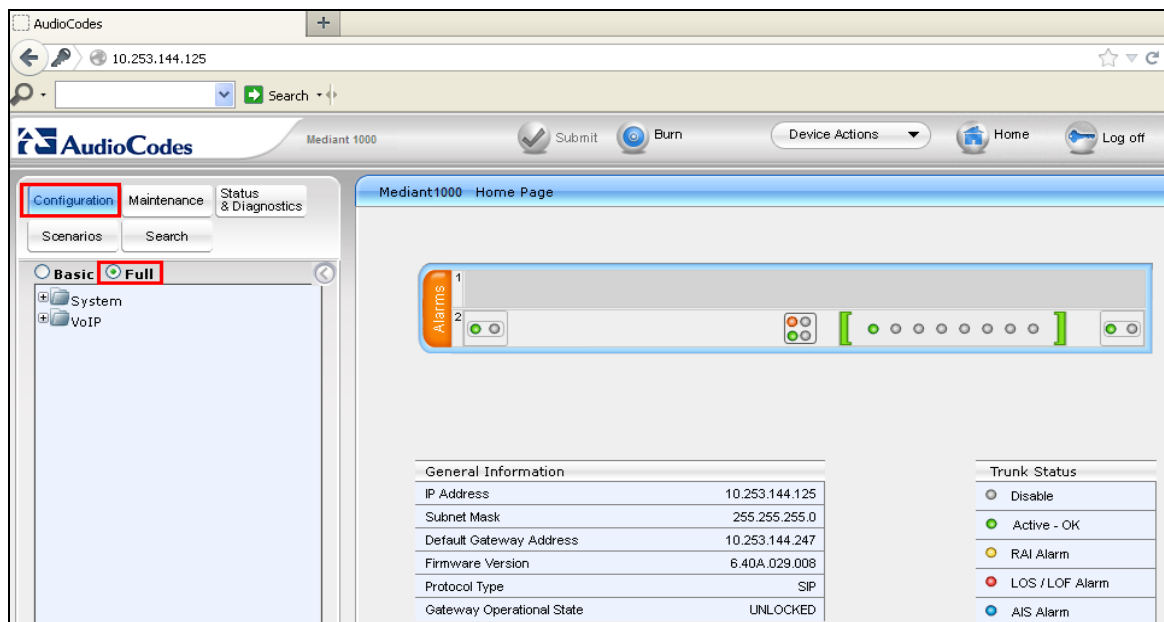
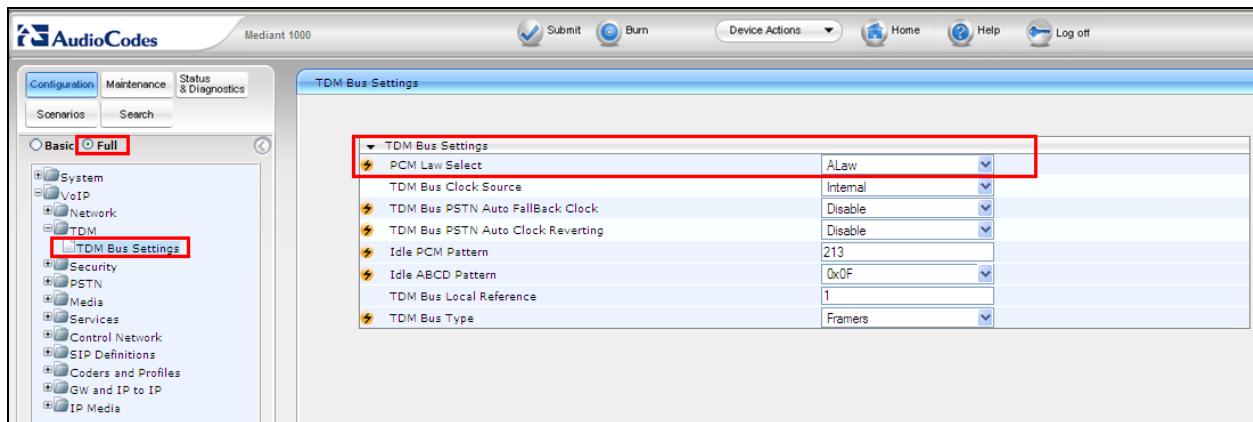Select **VoIP → TDM → TDM Bus Settings** in the left window. Ensure that **PCM Law Select** is set to the correct setting (as this compliance testing was done in Europe, **ALaw** was selected). This will ensure that all traffic from/to DS3000 is processed as A-Law through the gateway

Navigate to **PSTN → Trunk Settings** and under **CAS Table per Trunk** note the **CAS Table per Trunk** is a file provided by Capita in order to connect properly to the CS1000E Lineside E1 allowing for 100ms call answer instead of the Avaya default 2 secs.
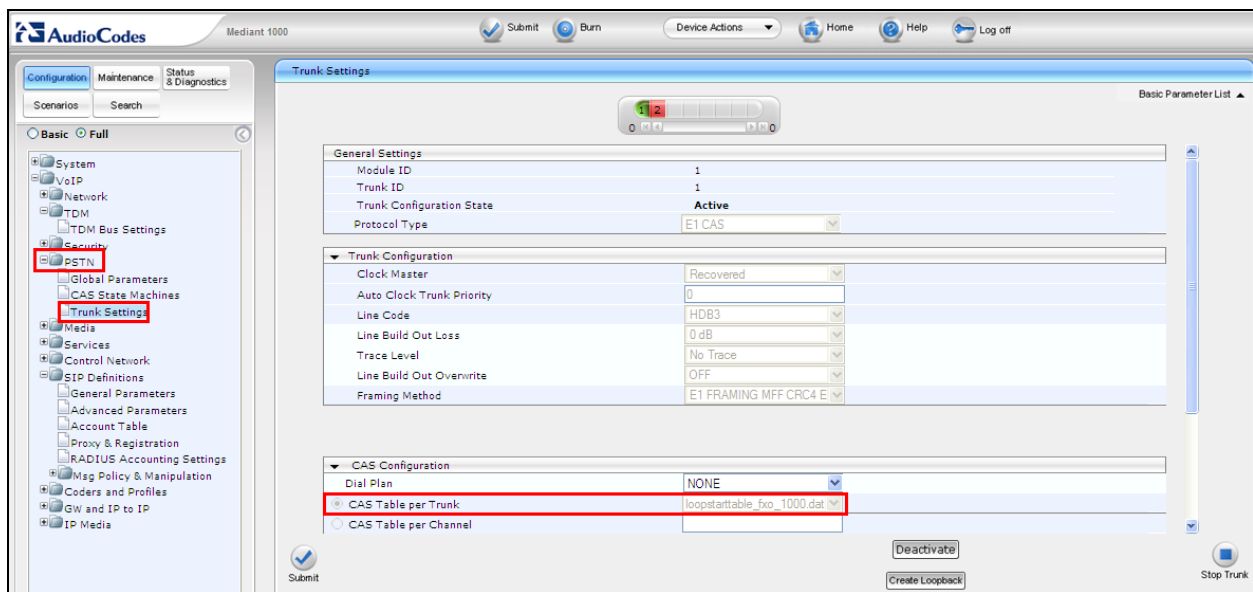
Select **VoIP → SIP Definitions → General Parameters** in the left window. Ensure that **SIP Transport Type and SIP UDP Local Port** are set to **UDP** and **5060**.
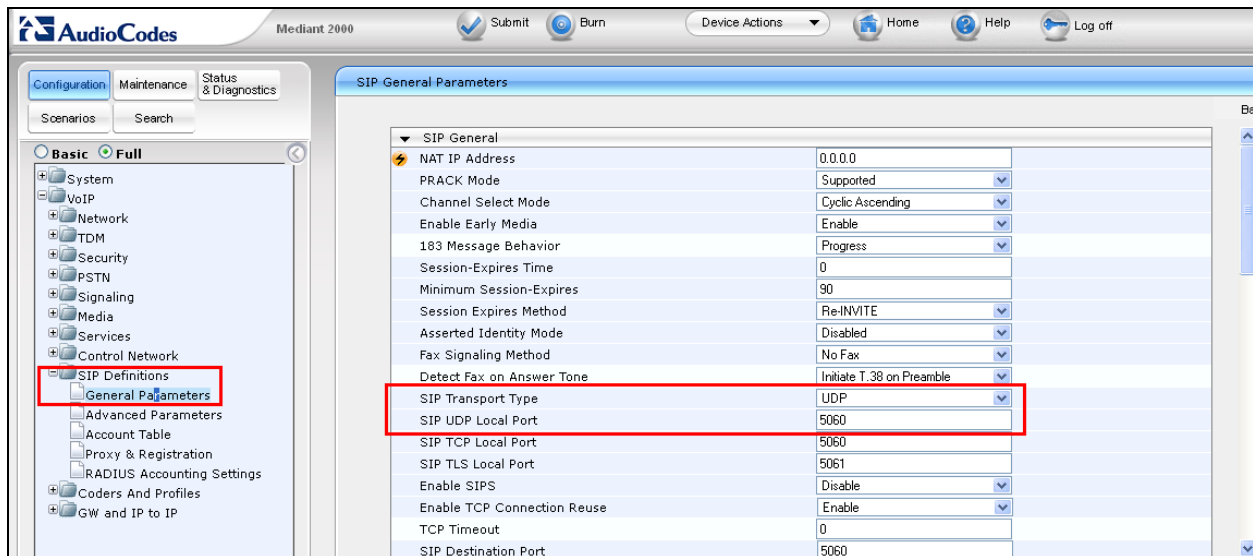
Select **VoIP → SIP Definitions → Advanced Parameters** in the left window. Ensure that **Disconnect on Broken Connection** is set to **No**.
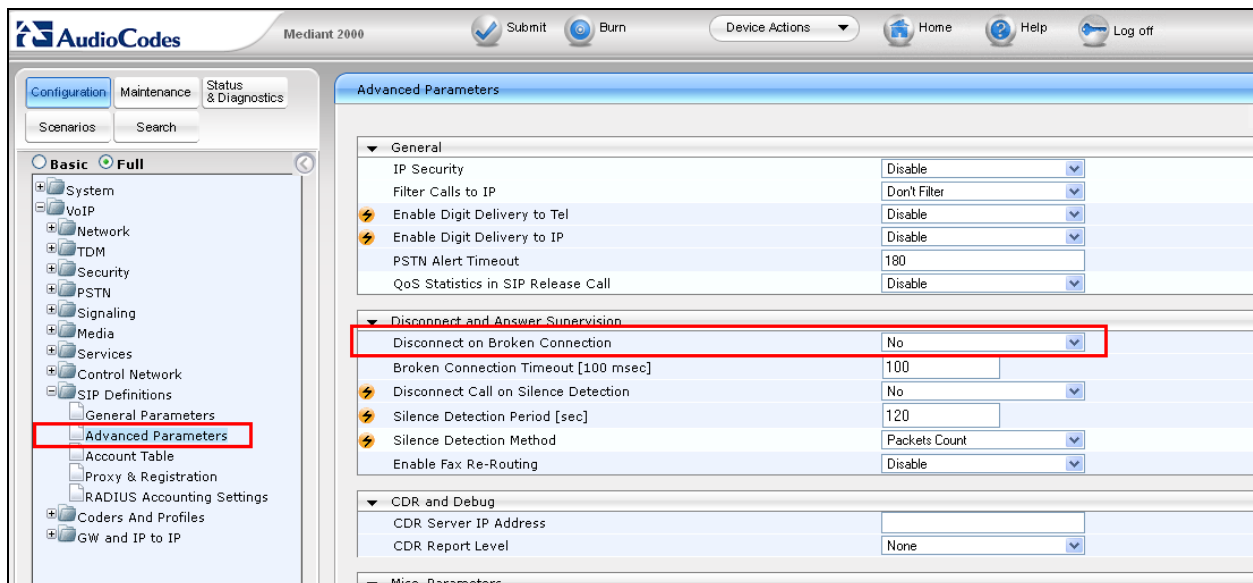
Select **VoIP → Coders and Profiles → Coders** in the left window. Ensure that **Coder Name** is set to the correct Law. As the compliance testing was done in Europe, this was set to **G.711A-Law**.
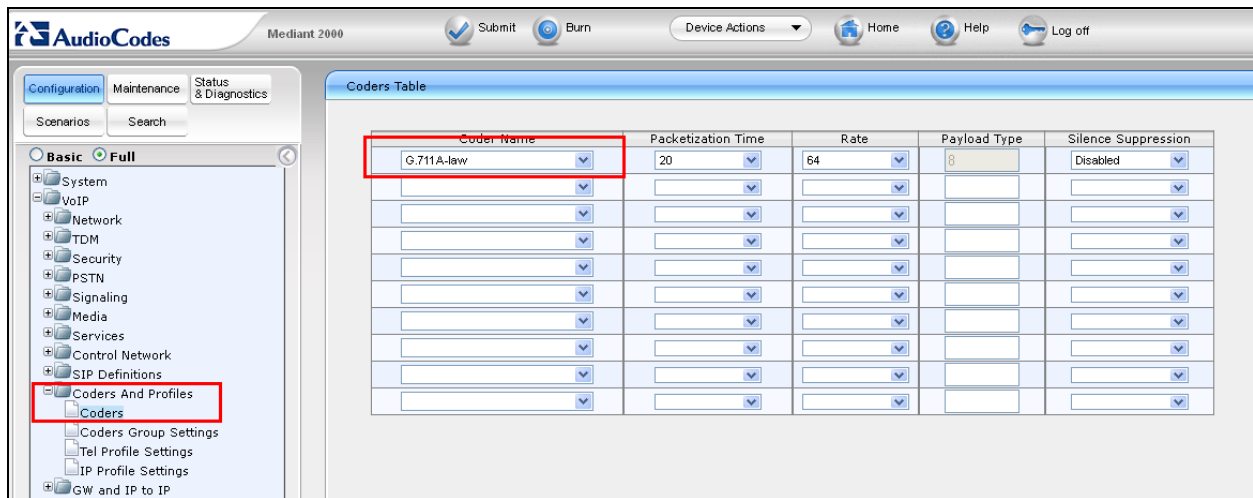
Navigate to **VoIP → Coders and Profiles → Tel Profile Settings**, in the main window ensure that **Disconnect Call on Detection of Busy Tone** is set to **Disable**.
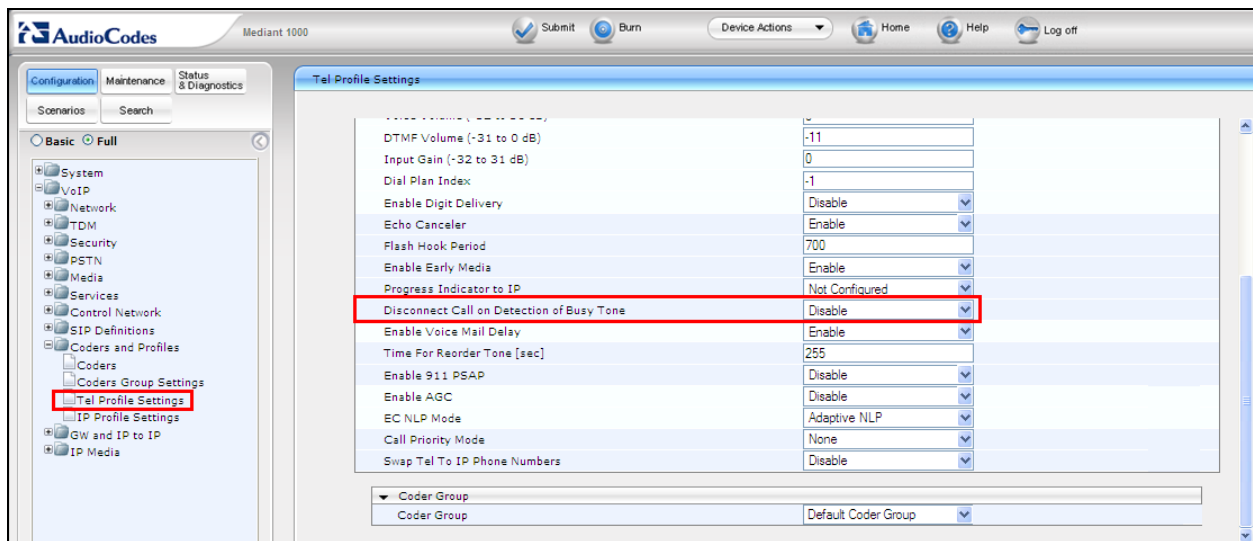
Select **VoIP** → **GW and IP to IP** → **Trunk Group** → **Trunk Group** from the left window. Enter the position ID for the first Lineside E1 Terminal Number (TN) into **Phone Number**. Note for compliance testing this is the same number created in **Section 5.3**. In each trunk group supported by the gateway set the Phone number for the first channel to the "Position ID" number of the Terminal Number associated with the channel. For example see **Section 5.3** were the Terminal Number 4-0-10-0 has Position ID **1113100** and number 3100. The position ID is the number configured into the DS3000 database to ensure consistency with the manner in which the terminal is identified to the Contact Center via the CCT interface.

Select **VoIP** → **GW and IP to IP** → **Routing** → **General Parameters** from the left window. Ensure that **Yes** is selected for **Replace Empty Destination with B-Channel Phone Number** in the main window. This ensures that the "to" address is valid when SIP calls reach the DS3000.

Navigate to **VoIP → GW and IP to IP → Routing →Tel to IP Routing**. In the main window enter the destination phone number prefix (**Dest. Phone Prefix**) and the destination IP address of the device where this number is routed to (**Dest. IP Address**). Ensure that **UDP** is set for the **Transport Type** used with a **Port** of **5060**.

Select **VoIP → GW and IP to IP → Routing → IP to Trunk Group Routing** from the left window. Note that in the example below **6*** and **3*** are selected for outgoing calls. This ensures that all calls beginning with either 3 or 6 will go out the VoIP gateway. This will also ensure that that the destination test@a.b.c.d is not routable to the trunk group.

Select **VoIP → GW and IP to IP → Manipulations → Release Cause Mapping** from the left window. Ensure that **3** is entered for the **Q.850 Cause** and **500** is entered for the **SIP Response**. This will ensure that the DS3000 is able to check for Mediant Gateway availability. Once all the configuration is completed, click on **Submit** and then **Burn** at the top of the page.

8. Configure Capita DS3000 Application

The following sections describe the step required to configure the DS3000 application in order to connect successfully with the Lineside E1 card on the CS1000E.

8.1. Configure the DS3000 extension numbers

Open the **DS3000 Client** on the DS3000 Client machine. Enter the correct credentials on the **LOGON PAD**.

Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.
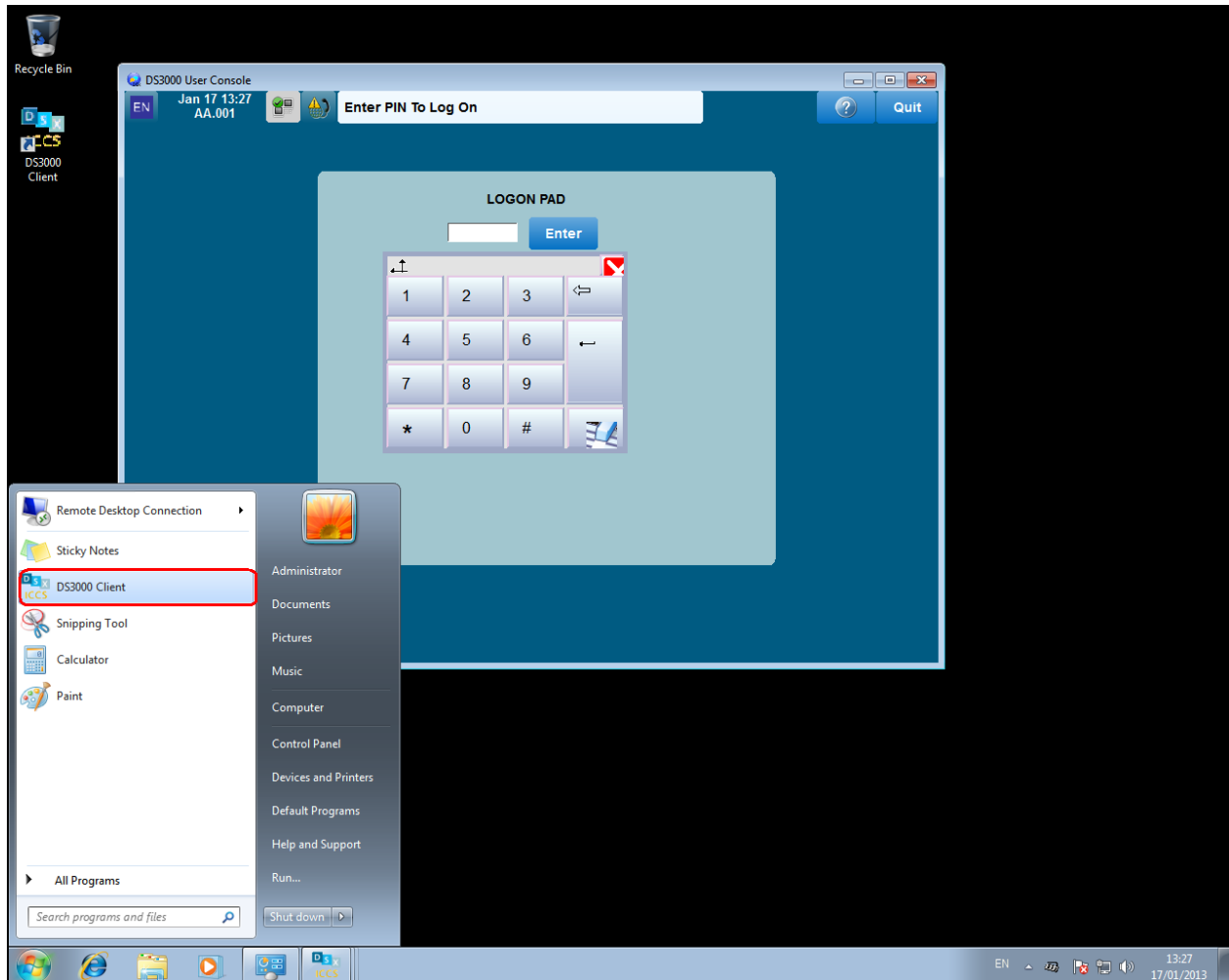
Click on **Resume** at the bottom of the screen as highlight.

Select **Done** at the bottom of the screen as highlighted.
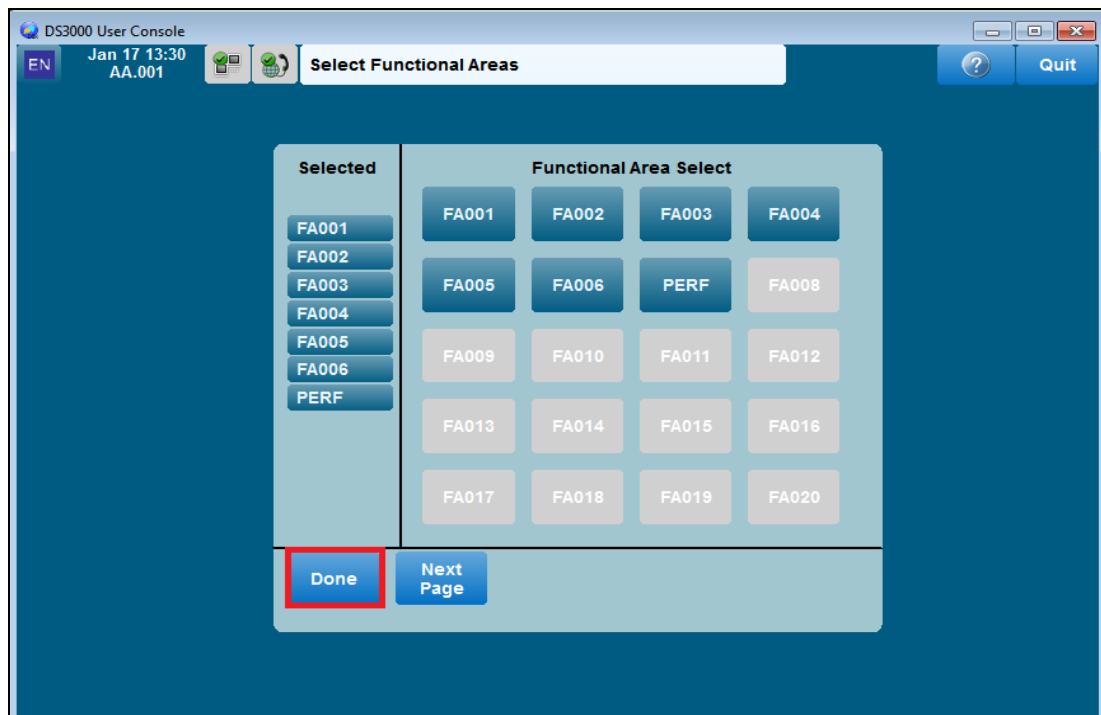
Click on the **UpdateDbase** button highlighted.
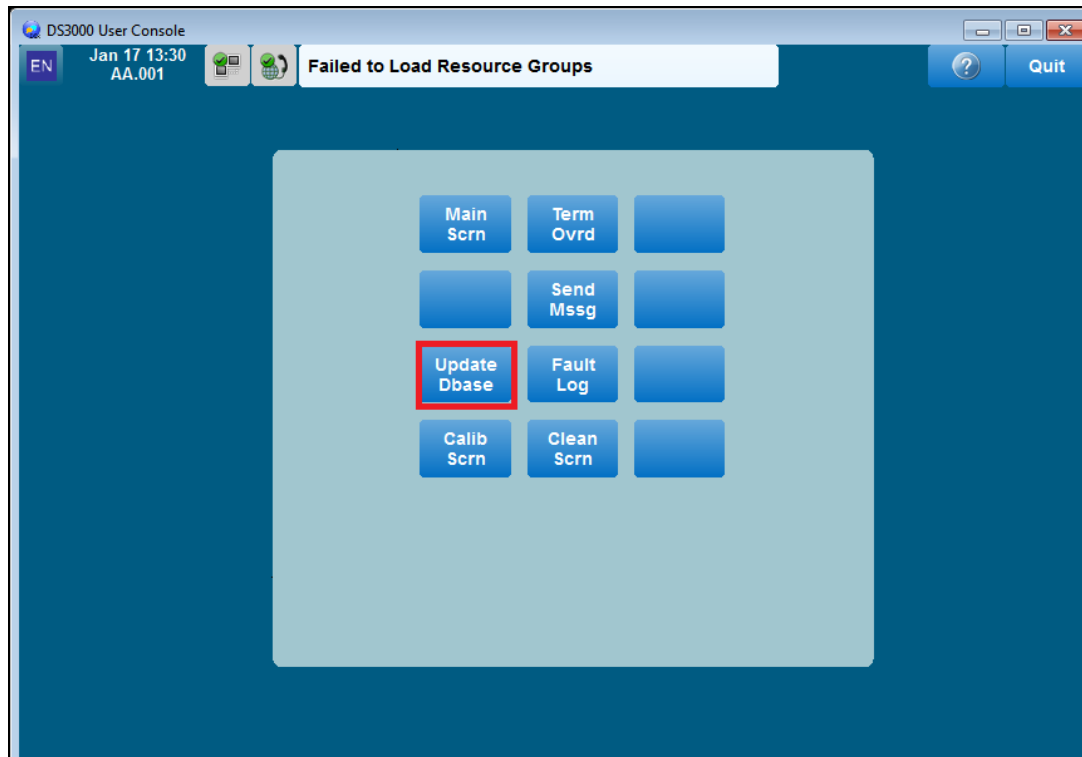
8.1.1. Configure ACD Extensions

Note that the ACD extensions are already populated in the database and these are configured by selecting the icon highlighted below.

Once selected the window below opens, ensure that the following are selected:
- Position ID (**1113100**) configured in **Section 5.3** for the **Extension** and **CDSExtension**
- **VTN Controlled** for **VTNExtensionType**
- **Terminal Position n for AssociatedTerminal** where special use below is CDS Personal (n is DS3000 operator console number in range 1 to 245)
- **CDS Personal** or **CDS Pool** as required for **SpecialUse**
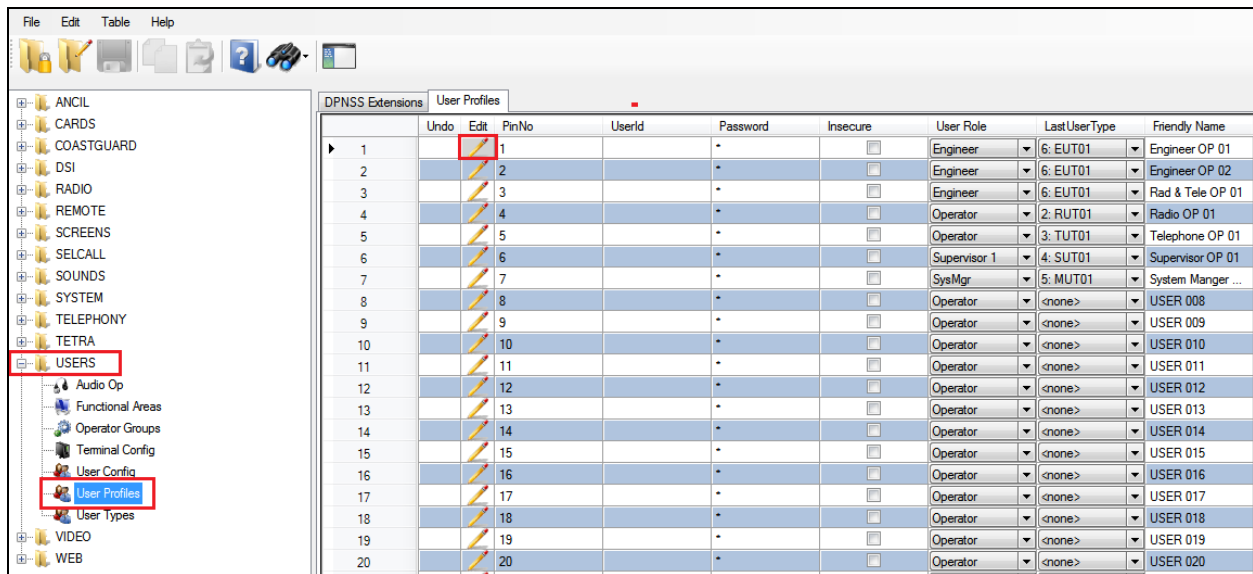
Click on **OK** once completed.
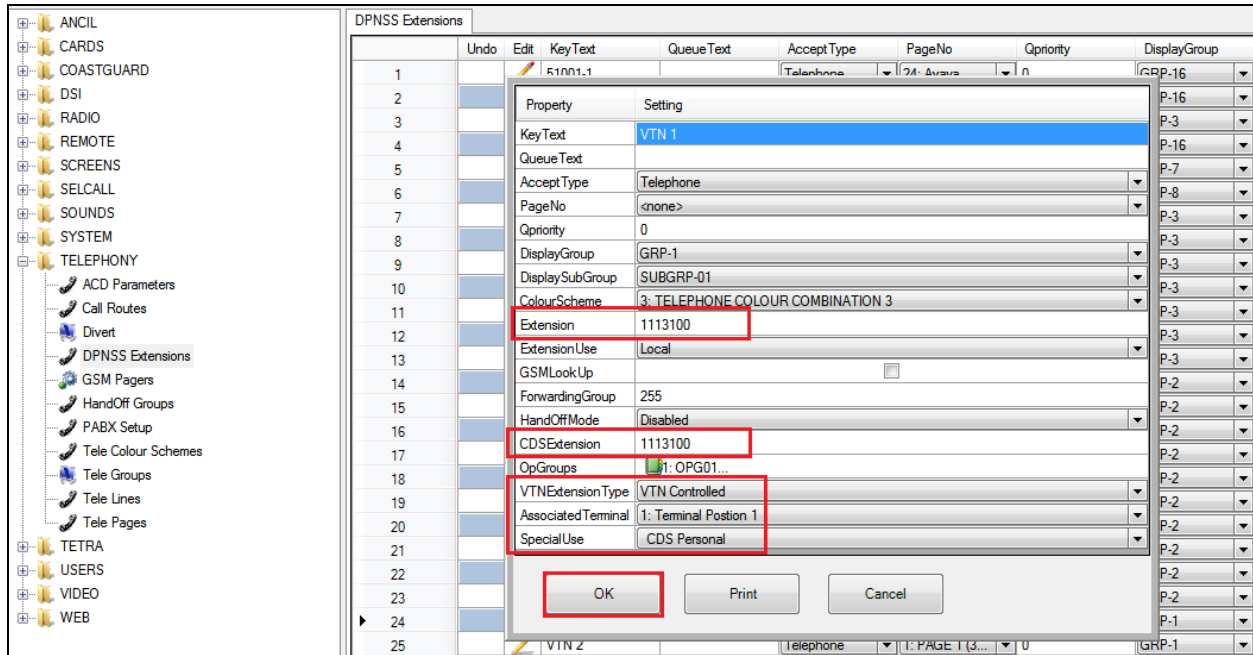
8.1.2. Configure ACD Users
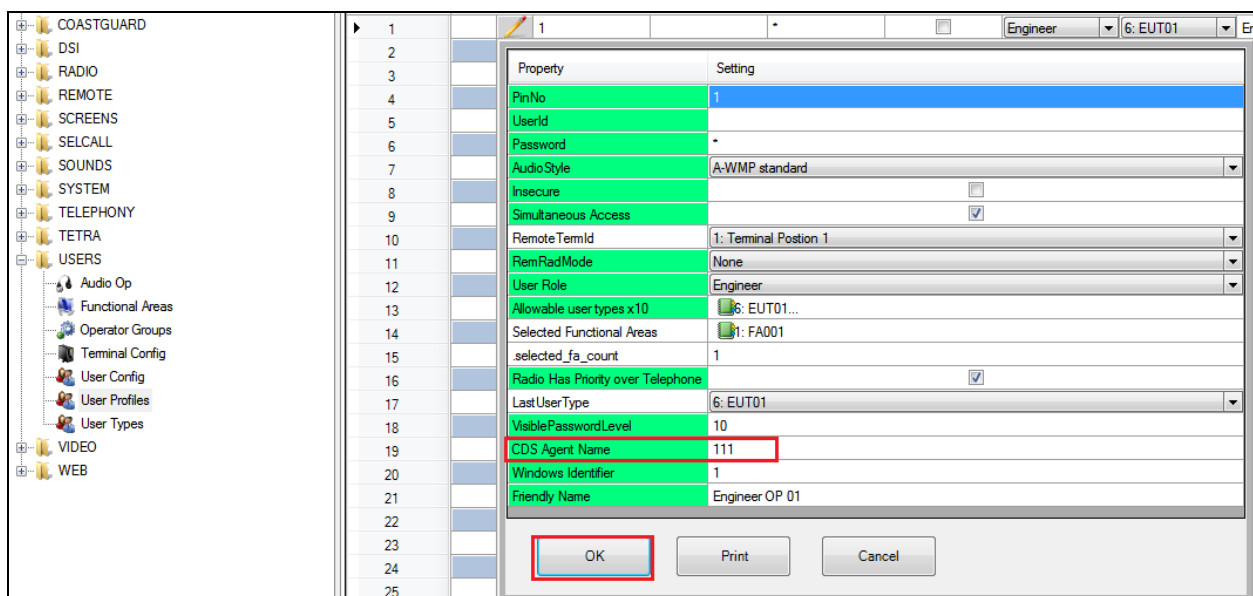
Select **USERS → User Profiles** in the left window and select user 1 by clicking the icon highlighted below.

Note: The Agent Login ID is formed by concatenating two pieces of information so that each user can have different ACD agent profiles dependant on the operational role. It is recommended that customers consult with Capita for explanation of configuration options available to assist with definition of Contact Center and DS3000 data configuration.

Note the **CDS Agent Name** is **111** which correspond to 9(111) which is the configured Agent Login ID from **Section 6.2**. Click on **OK** once completed.

Select **USERS → User Types** from the left window. The user type used in the compliance test was **EUT01**.This user type was already in the database but in order to configure it click on the icon highlighted below.
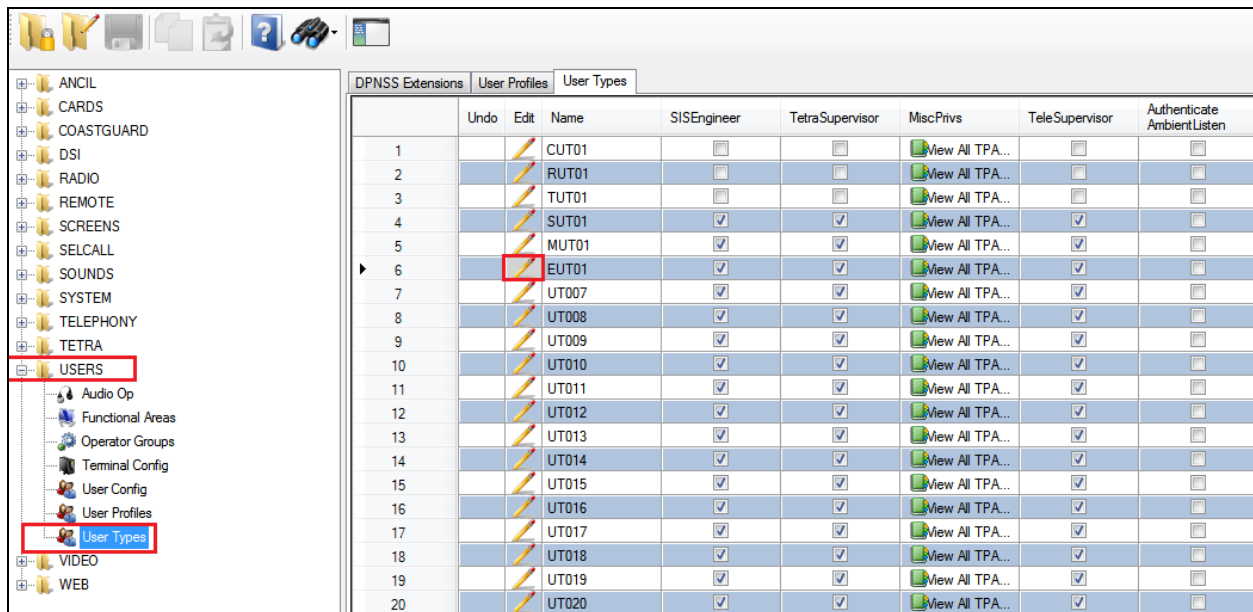
The resulting window is opened, scroll down to the bottom and note that **CDSAgentAffix** is set to **9** which corresponds to the (9)111 agent login ID configured in **Section 6.2**. Click on **OK** once completed.
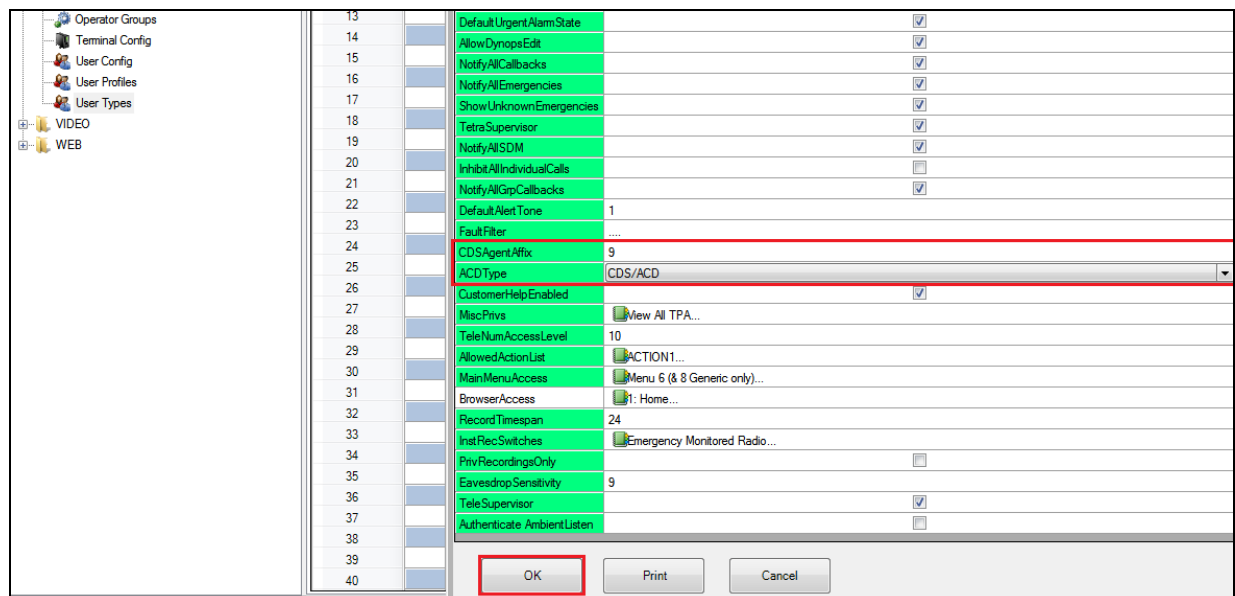
9. Verification Steps

The following step can be taken to ensure that all connections between Capita's DS3000 Solution and the Avaya Solution are configured correctly. Make a call to the CDN associated with the DS3000 and verify that the caller can be heard or call the extension (DN) of the Lineside E1 channel directly such as 3100 in this example.

9.1. Verify that calls can be made to the DS3000

Open the **DS3000 Client** on the DS3000 Client machine. Enter the correct credentials on the **LOGON PAD**.

PG; Reviewed:
SPOC 10/3/2014
Solution & Interoperability Test Lab Application Notes
©2014 Avaya Inc. All Rights Reserved.
36 of 49
DS3000_AACC64
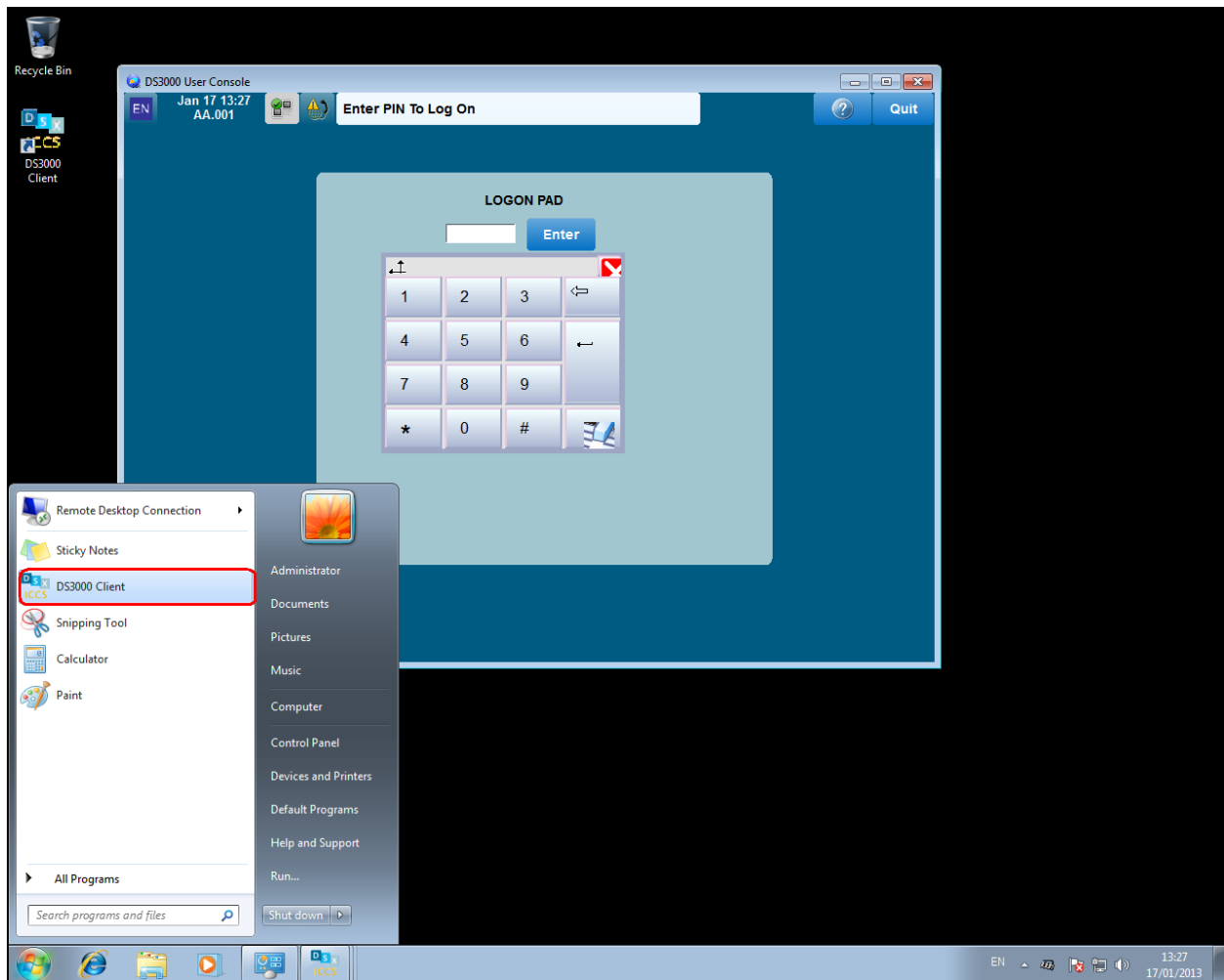
Click on **Resume** at the bottom of the screen as highlight.
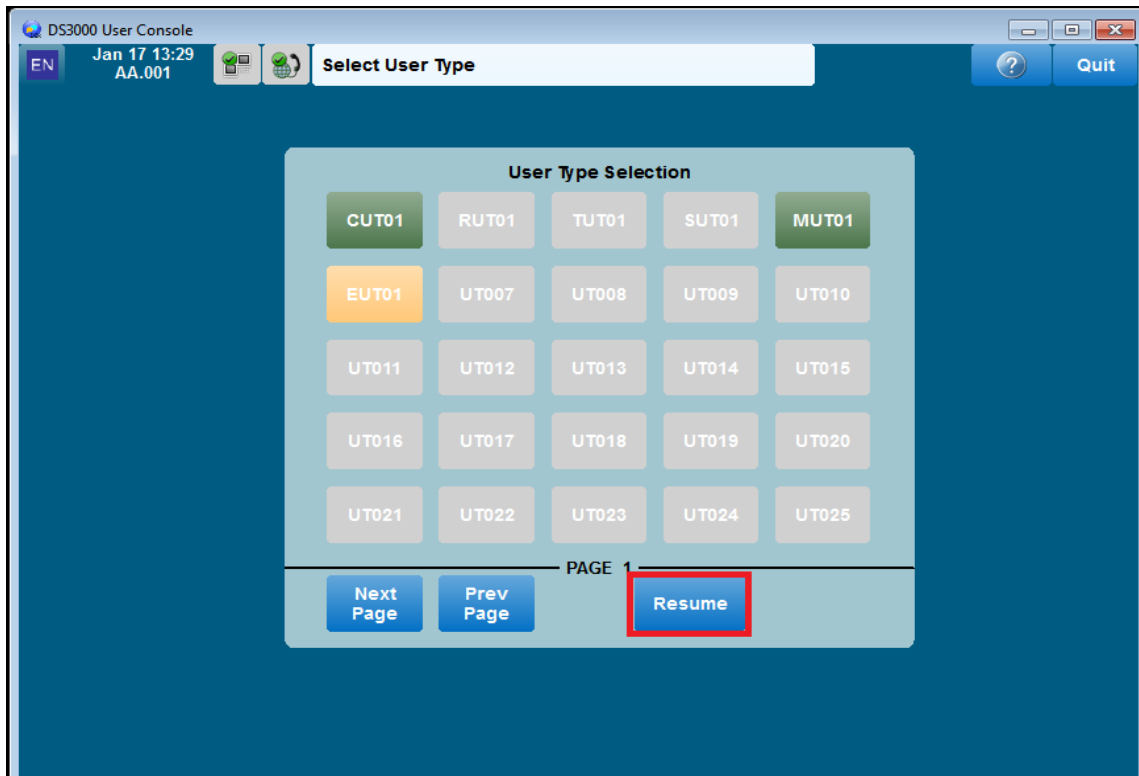
Select **Done** at the bottom of the screen as highlighted.
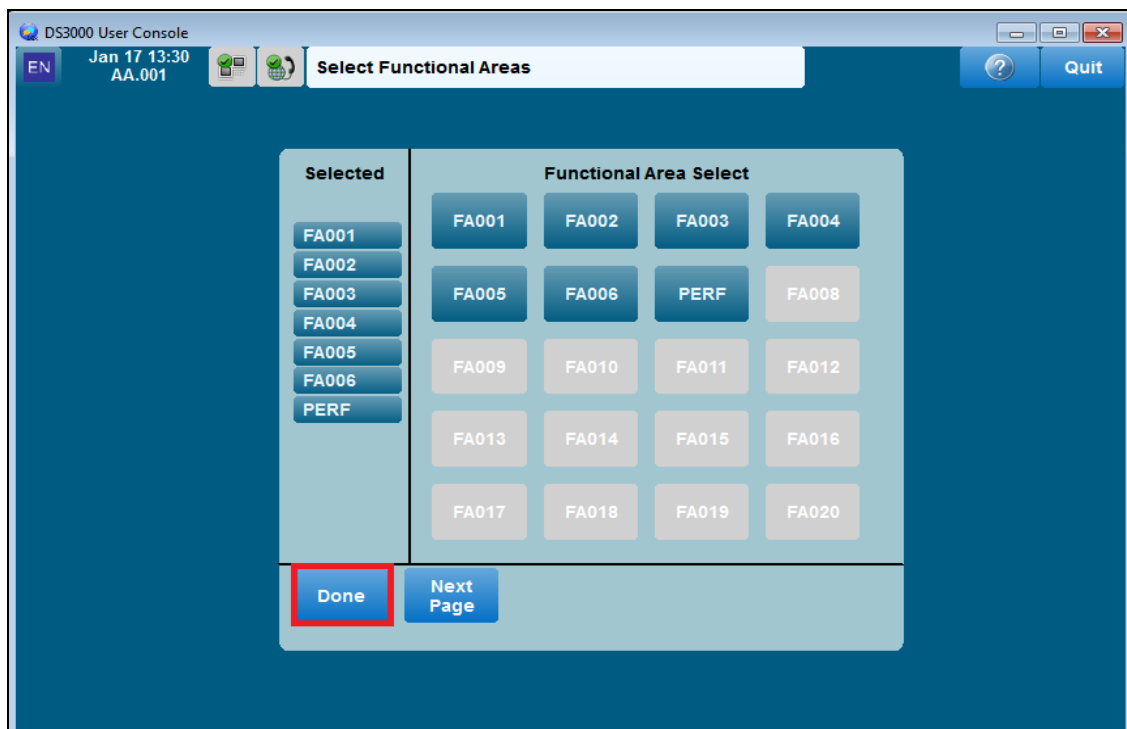
Click on the **Main Scrn** button highlighted below.

Once a call is presented to the Lineside E1 the following screen should appear. Click on the **VTN 1** button highlighted to take the call. Please note that under ACD operation calls will be auto answered and the agent does not need to touch a key. In this example a direct call was made from **3206** to 3100 to test the Lineside E1 line 3100.

Once the call is taken the following screen appears showing that caller **3206** called.

10. Conclusion

These Application Notes describe the configuration steps required for DS3000 from Capita Secure Information Solutions to successfully interoperate with Avaya Aura® Contact Center R6.4 and Avaya Communication Server 1000E R7.6 using a Lineside E1 connection. 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 Reference Administration Avaya Communication Server 1000, Release 7.6;* Document No. NN43001-611_05.02

[2] *Avaya Aura® Contact Center Administration,* Doc # NN44400-610, Issue 04.02 Release 6.4

[3] *Unified Communications Management Common Services Fundamentals Avaya Communication Server 1000,* Doc # NN43001-116, 05.08

[4] *Element Manager System Reference –Administration Avaya Communication Server 1000* Doc # NN43001-632, 05.04

[5] *AAOA Installation and Commissioning Guide Release 6.2* NN44400-330 03.02 24 August 2011

[6] *Application Notes for Configuring Capita Secure Information Solutions DS3000 with Avaya Aura® Contact Center R6.3 and Avaya Communication Server 1000E R7.5 using a Lineside E1 Connection*

Product documentation for DS3000 can be requested from Capita or may be downloaded from *http://www.capitasecureinformationsolutions.co.uk*

Appendix A

Linux Patches on Avaya Communication Server 1000E R7.6

```
Product Release: 7.65.16.00
In system patches: 0

In System service updates: 26
PATCH#  IN_SERVICE  DATE      SPECINS   REMOVABLE   NAME
2       Yes         27/08/13  NO        YES         cs1000-dmWeb-7.65.16.21-01.i386.000
3       Yes         28/08/13  NO        yes         cs1000-snmp-7.65.16.00-01.i686.000
4       Yes         28/08/13  NO        YES         cs1000-nrsm-7.65.16.00-03.i386.000
5       Yes         28/08/13  NO        YES         cs1000-oam-logging-7.65.16.01-01.i386.000
6       Yes         28/08/13  NO        yes         cs1000-cs1000WebService_6-0-7.65.16.21-00.i386.000
7       Yes         28/08/13  NO        YES         cs1000-sps-7.65.16.21-01.i386.000
8       Yes         28/08/13  NO        YES         cs1000-pd-7.65.16.21-00.i386.000
9       Yes         28/08/13  NO        YES         cs1000-shared-carrdtct-7.65.16.21-01.i386.000
10      Yes         28/08/13  NO        YES         cs1000-shared-tpselect-7.65.16.21-01.i386.000
11      Yes         28/08/13  NO        YES         cs1000-emWebLocal_6-0-7.65.16.21-01.i386.000
12      Yes         28/08/13  NO        yes         cs1000-dbcom-7.65.16.21-00.i386.000
13      Yes         28/08/13  NO        YES         cs1000-csmWeb-7.65.16.21-05.i386.000
14      Yes         28/08/13  NO        YES         cs1000-shared-xmsg-7.65.16.21-00.i386.000
15      Yes         28/08/13  NO        YES         cs1000-vtrk-7.65.16.21-29.i386.000
16      Yes         28/08/13  NO        YES         cs1000-tps-7.65.16.21-05.i386.000
17      Yes         28/08/13  NO        YES         cs1000-mscAnnc-7.65.16.21-02.i386.001
18      Yes         28/08/13  NO        YES         cs1000-mscAttn-7.65.16.21-04.i386.001
19      Yes         28/08/13  NO        YES         cs1000-mscConf-7.65.16.21-02.i386.001
20      Yes         28/08/13  NO        YES         cs1000-mscMusc-7.65.16.21-02.i386.001
21      Yes         28/08/13  NO        YES         cs1000-mscTone-7.65.16.21-03.i386.001
22      Yes         28/08/13  NO        YES         cs1000-bcc-7.65.16.21-21.i386.000
23      Yes         28/08/13  NO        YES         cs1000-Jboss-Quantum-7.65.16.21-3.i386.000
24      Yes         28/08/13  NO        YES         cs1000-emWeb_6-0-7.65.16.21-06.i386.000
25      Yes         10/12/13  NO        yes         cs1000-cs-7.65.P.100-01.i386.001
26      Yes         10/12/13  YES       yes         cs1000-linuxbase-7.65.16.21-08.i386.000
27      Yes         10/12/13  NO        YES         cs1000-patchWeb-7.65.16.21-06.i386.000
[paul@cs1kpg1 ~]$
```

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

```
VERSION 4121
RELEASE 7
ISSUE 65 P +
DepList 1: core Issue: 01 (created: 2014-06-24 04:38:41 (est))

IN-SERVICE PEPS
PAT# CR #          PATCH REF #    NAME      DATE        FILENAME        SPECINS
000  wi01052968    ISS1:1OF1      p32540_1  18/08/2014  p32540_1.cpl    NO
001  wi01045058    ISS1:1OF1      p32214_1  18/08/2014  p32214_1.cpl    NO
002  wi01085855    ISS1:1OF1      p32658_1  18/08/2014  p32658_1.cpl    NO
003  wi01053314    ISS1:1OF1      p32555_1  18/08/2014  p32555_1.cpl    NO
004  wi01060382    iss1:1of1      p32623_1  18/08/2014  p32623_1.cpl    YES
005  wi01070580    ISS1:1OF1      p32380_1  18/08/2014  p32380_1.cpl    NO
006  wi01101876    ISS1:1OF1      p32858_1  18/08/2014  p32858_1.cpl    NO
007  wi01061481    ISS1:1OF1      p32382_1  18/08/2014  p32382_1.cpl    NO
008  wi01124074    ISS1:1OF1      p32989_1  18/08/2014  p32989_1.cpl    NO
009  wi01099300    iss1:1of1      p32704_1  18/08/2014  p32704_1.cpl    NO
010  wi01035976    ISS1:1OF1      p32173_1  18/08/2014  p32173_1.cpl    NO
011  wi01065922    ISS1:1OF1      p32516_1  18/08/2014  p32516_1.cpl    NO
012  WI01121737    ISS1:1OF1      p32939_1  21/08/2014  p32939_1.cpl    NO
013  wi01041453    ISS1:1OF1      p32587_1  18/08/2014  p32587_1.cpl    NO
014  wi01096842    ISS1:1OF1      p32731_1  18/08/2014  p32731_1.cpl    NO
015  WI0110261     ISS1:1OF1      p32758_1  18/08/2014  p32758_1.cpl    NO
016  wi01064599    iss1:1of1      p32580_1  18/08/2014  p32580_1.cpl    NO
017  wi01098783    ISS1:1OF1      p32748_1  18/08/2014  p32748_1.cpl    NO
018  wi01072027    ISS1:1OF1      p32689_1  18/08/2014  p32689_1.cpl    NO
019  wi01059388    iss1:1of1      p32628_1  18/08/2014  p32628_1.cpl    NO
020  wi01104410    ISS1:1OF1      p32801_1  18/08/2014  p32801_1.cpl    NO
021  wi00933195    ISS1:1OF1      p32491_1  18/08/2014  p32491_1.cpl    NO
022  wi01150771    ISS1:1OF1      p33210_1  21/08/2014  p33210_1.cpl    NO
023  wi01065118    ISS1:1OF1      p32397_1  18/08/2014  p32397_1.cpl    NO
024  wi01063864    ISS1:1OF1      p32410_1  18/08/2014  p32410_1.cpl    YES
025  wi01096712    ISS1:1OF1      p32708_1  18/08/2014  p32708_1.cpl    NO
026  wi01075359    ISS1:1OF1      p32671_1  18/08/2014  p32671_1.cpl    NO
027  wi01080753    ISS1:1OF1      p32518_1  18/08/2014  p32518_1.cpl    NO
028  wi01070473    ISS1:1OF1      p32413_1  18/08/2014  p32413_1.cpl    NO
029  wi01075355    ISS1:1OF1      p32594_1  18/08/2014  p32594_1.cpl    NO
030  wi01071379    ISS1:1OF1      p32522_1  18/08/2014  p32522_1.cpl    NO
031  wi01070756    ISS1:1OF1      p32444_1  18/08/2014  p32444_1.cpl    NO
032  wi01075353    ISS1:1OF1      p32613_1  18/08/2014  p32613_1.cpl    NO
033  wi01062607    ISS1:1OF1      p32503_1  18/08/2014  p32503_1.cpl    NO
034  wi01068851    ISS1:1OF1      p32439_1  18/08/2014  p32439_1.cpl    NO
035  wi01144354    ISS1:1OF1      p33117_1  21/08/2014  p33117_1.cpl    NO
036  wi01092300    ISS1:1OF1      p32692_1  18/08/2014  p32692_1.cpl    NO
037  wi01063263    ISS1:1OF1      p32573_1  18/08/2014  p32573_1.cpl    NO
038  wi01087528    ISS1:1OF1      p32700_1  18/08/2014  p32700_1.cpl    NO
039  wi01150846    ISS1:1OF1      p33157_1  21/08/2014  p33157_1.cpl    NO
040  wi01039280    ISS1:1OF1      p32423_1  18/08/2014  p32423_1.cpl    NO
041  wi01068669    ISS1:1OF1      p32333_1  18/08/2014  p32333_1.cpl    NO
042  wi01069441    ISS1:1OF1      p32097_1  18/08/2014  p32097_1.cpl    NO
043  wi01058621    ISS1:1OF1      p32339_1  18/08/2014  p32339_1.cpl    NO
044  wi01146804    ISS1:1OF1      p33132_1  21/08/2014  p33132_1.cpl    NO
045  wi01070465    iss1:1of1      p32562_1  18/08/2014  p32562_1.cpl    NO
046  wi01053920    ISS1:1OF1      p32303_1  18/08/2014  p32303_1.cpl    NO
047  wi00897254    ISS1:1OF1      p31127_1  18/08/2014  p31127_1.cpl    NO
048  wi01057403    ISS1:1OF1      p32591_1  18/08/2014  p32591_1.cpl    NO
049  wi01066991    ISS1:1OF1      p32449_1  18/08/2014  p32449_1.cpl    NO
050  wi01094305    ISS1:1OF1      p32640_1  18/08/2014  p32640_1.cpl    NO
```

```
051   wi01060611   ISS1:1OF1     p32809_1   18/08/2014   p32809_1.cpl   NO
052   wi01137694   ISS1:1OF1     p33081_1   21/08/2014   p33081_1.cpl   NO
053   wi01060241   ISS1:1OF1     p32381_1   18/08/2014   p32381_1.cpl   NO
054   wi01034307   ISS1:1OF1     p32615_1   18/08/2014   p32615_1.cpl   NO
055   wi01052428   ISS1:1OF1     p32606_1   18/08/2014   p32606_1.cpl   NO
056   wi00884716   ISS1:1OF1     p32517_1   18/08/2014   p32517_1.cpl   NO
057   wi01070468   iss1:1of1     p32418_1   18/08/2014   p32418_1.cpl   NO
058   wi01091447   ISS1:1OF1     p32675_1   18/08/2014   p32675_1.cpl   NO
059   wi01156999   ISS1:1OF1     p33180_1   21/08/2014   p33180_1.cpl   NO
060   wi01132599   ISS1:1OF1     p33025_1   18/08/2014   p33025_1.cpl   NO
061   wi01065125   ISS1:1OF1     p32416_1   18/08/2014   p32416_1.cpl   NO
062   wi01056633   ISS1:1OF1     p32322_1   18/08/2014   p32322_1.cpl   NO
063   wi01078721   ISS1:1OF1     p32553_1   18/08/2014   p32553_1.cpl   NO
064   wi01053597   ISS1:1OF1     p32304_1   18/08/2014   p32304_1.cpl   NO
065   wi01132883   ISS1:1OF1     p33030_1   18/08/2014   p33030_1.cpl   NO
066   wi01025156   ISS1:1OF1     p32136_1   18/08/2014   p32136_1.cpl   NO
067   wi01088775   ISS1:1OF1     p32659_1   18/08/2014   p32659_1.cpl   NO
068   wi01114038   ISS1:1OF1     p32869_1   18/08/2014   p32869_1.cpl   NO
069   wi01075360   iss1:1of1     p32602_1   18/08/2014   p32602_1.cpl   NO
070   wi01053195   ISS1:1OF1     p32297_1   18/08/2014   p32297_1.cpl   NO
071   wi01043367   ISS1:1OF1     p32232_1   18/08/2014   p32232_1.cpl   NO
072   wi01082456   ISS1:1OF1     p32596_1   18/08/2014   p32596_1.cpl   NO
073   wi01089519   ISS1:1OF1     p32665_1   18/08/2014   p32665_1.cpl   NO
074   wi01105888   ISS1:1OF1     p32794_1   18/08/2014   p32794_1.cpl   NO
075   wi01132215   ISS1:1OF1     p33084_1   21/08/2014   p33084_1.cpl   NO
076   wi01035980   ISS1:1OF1     p32558_1   18/08/2014   p32558_1.cpl   NO
077   wi01087543   ISS1:1OF1     p32662_1   18/08/2014   p32662_1.cpl   NO
078   wi01060826   ISS1:1OF1     p32379_1   18/08/2014   p32379_1.cpl   NO
079   wi01167427   ISS1:1OF1     p33264_1   21/08/2014   p33264_1.cpl   NO
080   wi01034961   ISS1:1OF1     p32144_1   18/08/2014   p32144_1.cpl   NO
081   wi01142525   ISS1:1OF1     p33096_1   21/08/2014   p33096_1.cpl   NO
082   WI01077073   ISS1:1OF1     p32534_1   18/08/2014   p32534_1.cpl   NO
083   wi01133985   ISS1:1OF1     p33049_1   18/08/2014   p33049_1.cpl   NO
084   wi01138714   ISS2:1OF1     p33065_2   21/08/2014   p33065_2.cpl   NO
085   wi01130836   ISS1:1OF1     p33008_1   18/08/2014   p33008_1.cpl   YES
086   wi01118928   ISS1:1OF1     p32922_1   18/08/2014   p32922_1.cpl   NO
087   wi01070585   ISS1:1OF1     p32383_1   18/08/2014   p32383_1.cpl   NO
088   wi01071296   ISS1:1OF1     p32836_1   18/08/2014   p32836_1.cpl   NO
089   wi01089355   ISS1:1OF1     p32674_1   18/08/2014   p32674_1.cpl   YES
090   wi01119312   ISS1:1OF1     p32919_1   18/08/2014   p32919_1.cpl   NO
091   wi01134952   ISS1:1OF1     p33039_1   18/08/2014   p33039_1.cpl   NO
092   wi01124477   ISS1:1OF1     p32963_1   18/08/2014   p32963_1.cpl   NO
093   wi01156086   ISS1:1OF1     p33269_1   21/08/2014   p33269_1.cpl   NO
094   wi01115894   ISS1:1OF1     p32910_1   18/08/2014   p32910_1.cpl   NO
095   wi01101385   ISS1:1OF1     p32773_1   18/08/2014   p32773_1.cpl   YES
096   wi01115450   ISS1:1OF1     p32888_1   18/08/2014   p32888_1.cpl   NO
097   wi01075538   ISS1:1OF1     p32469_1   18/08/2014   p32469_1.cpl   NO
098   wi01159931   ISS1:1OF1     p33231_1   21/08/2014   p33231_1.cpl   YES
099   wi01126552   ISS1:1OF1     p32975_1   18/08/2014   p32975_1.cpl   NO
100   wi01144066   ISS1:1OF1     p33114_1   21/08/2014   p33114_1.cpl   NO
101   wi01129028   ISS1:1OF1     p33016_1   18/08/2014   p33016_1.cpl   NO
102   wi01099724   ISS1:1OF1     p32742_1   18/08/2014   p32742_1.cpl   YES
103   wi01129098   ISS1:1OF1     p32951_1   18/08/2014   p32951_1.cpl   NO
104   wi01146254   ISS1:1OF1     p33127_1   21/08/2014   p33127_1.cpl   NO
105   WI01108562   ISS1:1OF1     p32832_1   18/08/2014   p32832_1.cpl   NO
106   wi01094727   ISS1:1OF1     p32848_1   18/08/2014   p32848_1.cpl   NO
107   wi01096967   ISS1:1OF1     p32735_1   18/08/2014   p32735_1.cpl   NO
108   wi01022598   ISS1:1OF1     p32066_1   18/08/2014   p32066_1.cpl   NO
109   wi01126454   ISS1:1OF1     p32973_1   18/08/2014   p32973_1.cpl   NO
110   wi01051200   ISS1:1OF1     p32290_1   18/08/2014   p32290_1.cpl   NO
111   wi01127640   ISS1:1OF1     p32992_1   18/08/2014   p32992_1.cpl   NO
112   wi01128512   ISS1:1OF1     p32997_1   18/08/2014   p32997_1.cpl   NO
```

```
113  wi01122174    ISS1:1OF1    p32936_1  18/08/2014  p32936_1.cpl   NO
114  wi01097598    ISS1:1OF1    p32797_1  18/08/2014  p32797_1.cpl   NO
115  wi01095462    ISS1:1OF1    p32723_1  18/08/2014  p32723_1.cpl   NO
116  wi01108828    ISS1:1OF1    p32831_1  18/08/2014  p32831_1.cpl   NO
117  wi01104473    ISS1:1OF1    p32818_1  18/08/2014  p32818_1.cpl   NO
118  wi01079444    ISS1:1OF1    p32564_1  18/08/2014  p32564_1.cpl   NO
119  wi01109251    ISS1:1OF1    p32827_1  18/08/2014  p32827_1.cpl   NO
120  wi01092443    ISS1:1OF1    p32676_1  18/08/2014  p32676_1.cpl   NO
121  wi01099292    ISS1:1OF1    p32886_1  18/08/2014  p32886_1.cpl   NO
122  wi01104867    ISS1:1OF1    p32828_1  18/08/2014  p32828_1.cpl   NO
123  wi01080963    ISS1:1OF1    p32626_1  18/08/2014  p32626_1.cpl   YES
124  wi01065115    ISS1:1OF1    p32523_1  18/08/2014  p32523_1.cpl   NO
125  wi01081510    ISS1:1OF1    p32582_1  18/08/2014  p32582_1.cpl   NO
126  wi01110593    ISS1:1OF1    p32849_1  18/08/2014  p32849_1.cpl   NO
127  wi01099606    iss1:1of1    p32713_1  18/08/2014  p32713_1.cpl   NO
128  wi01123389    ISS1:1OF1    p33045_1  18/08/2014  p33045_1.cpl   NO
129  wi01072062    ISS1:1OF1    p32776_1  18/08/2014  p32776_1.cpl   NO
130  wi01136194    ISS:1OF1     p33051_1  21/08/2014  p33051_1.cpl   NO
131  wi01045144    ISS1:1OF1    p33202_1  21/08/2014  p33202_1.cpl   NO
132  wi01128596    ISS1:1OF1    p33000_1  18/08/2014  p33000_1.cpl   NO
133  wi01090535    ISS1:1OF1    p32519_1  18/08/2014  p32519_1.cpl   NO
134  wi01127447    ISS1:1OF1    p32990_1  18/08/2014  p32990_1.cpl   NO
135  wi01132244    ISS1:1OF1    p33041_1  18/08/2014  p33041_1.cpl   NO
136  wi01097786    ISS1:1OF1    p33086_1  21/08/2014  p33086_1.cpl   NO
137  wi01093118    ISS1:1OF1    p32496_1  18/08/2014  p32496_1.cpl   NO
138  wi01108262    ISS1:1OF1    p32865_1  18/08/2014  p32865_1.cpl   YES
139  wi01098433    ISS1:1OF1    p32736_1  18/08/2014  p32736_1.cpl   NO
140  wi01115807    ISS1:1OF1    p32895_1  18/08/2014  p32895_1.cpl   YES
141  wi01159009    ISS1:1OF1    p33098_1  21/08/2014  p33098_1.cpl   YES
142  wi01136429    ISS1:1OF1    p33037_1  21/08/2014  p33037_1.cpl   NO
143  wi01119086    ISS1:1OF1    p32917_1  18/08/2014  p32917_1.cpl   NO
144  wi01132204    ISS1:1OF1    p32501_1  18/08/2014  p32501_1.cpl   NO
145  wi01058378    ISS1:1OF1    p32344_1  18/08/2014  p32344_1.cpl   NO
146  wi01088797    ISS1:1OF1    p32844_1  18/08/2014  p32844_1.cpl   NO
147  wi00937672    ISS1:1OF1    p31276_1  18/08/2014  p31276_1.cpl   NO
148  wi01098905    ISS1:1OF1    p32556_1  18/08/2014  p32556_1.cpl   NO
149  wi01120705    ISS1:1OF1    p32930_1  18/08/2014  p32930_1.cpl   NO
150  wi01120406    ISS1:1OF1    p32956_1  18/08/2014  p32956_1.cpl   NO
151  wi01083896    ISS1:1OF1    p32937_1  18/08/2014  p32937_1.cpl   NO
152  wi01130815    ISS1:1OF1    p33017_1  18/08/2014  p33017_1.cpl   NO
153  wi01113374    ISS1:1OF1    p32874_1  18/08/2014  p32874_1.cpl   NO
154  wi01145002    ISS1:1OF1    p33186_1  21/08/2014  p33186_1.cpl   NO
155  wi01104627    ISS1:1OF1    p32819_1  18/08/2014  p32819_1.cpl   NO
156  wi01137003    ISS1:1OF1    p33053_1  18/08/2014  p33053_1.cpl   NO
157  wi01093071    ISS1:1OF1    p32701_1  18/08/2014  p32701_1.cpl   NO
158  wi01068751    ISS1:1OF1    p32445_1  18/08/2014  p32445_1.cpl   NO
159  wi01134602    ISS1:1OF1    p32398_1  18/08/2014  p32398_1.cpl   NO
160  wi01102093    ISS1:1OF1    p32760_1  18/08/2014  p32760_1.cpl   NO
161  wi01101969    ISS1:1OF1    p32726_1  18/08/2014  p32726_1.cpl   NO
162  wi01133106    ISS1:1OF1    p33032_1  18/08/2014  p33032_1.cpl   NO
163  wi01070279    ISS1:1OF1    p32262_1  18/08/2014  p32262_1.cpl   NO
164  wi01107601    ISS1:1OF1    p32970_1  18/08/2014  p32970_1.cpl   NO
165  wi01088915    ISS1:1OF1    p32638_1  18/08/2014  p32638_1.cpl   NO
166  wi01130348    ISS1:1OF1    p33014_1  18/08/2014  p33014_1.cpl   NO
167  wi01077639    ISS1:1OF1    p32883_1  18/08/2014  p32883_1.cpl   NO
168  wi01125238    ISS1:1OF1    p32971_1  18/08/2014  p32971_1.cpl   NO
169  wi01000087    ISS1:1OF1    p32014_1  18/08/2014  p32014_1.cpl   NO
170  wi01119100    ISS1:1OF1    p32925_1  18/08/2014  p32925_1.cpl   NO
171  wi01132902    ISS1:1OF1    p33028_1  18/08/2014  p33028_1.cpl   NO
172  wi01053950    ISS1:1OF1    p32654_1  18/08/2014  p32654_1.cpl   YES
173  wi01082824    ISS1:1OF1    p32467_1  18/08/2014  p32467_1.cpl   NO
174  wi01109345    ISS1:1OF1    p32830_1  18/08/2014  p32830_1.cpl   NO
```

```
175  wi01073725    ISS1:1OF1    p32552_1  18/08/2014  p32552_1.cpl    NO
176  wi01149017    ISS1:1OF1    p33145_1  21/08/2014  p33145_1.cpl    NO
177  wi01099810    ISS1:1OF1    p32796_1  18/08/2014  p32796_1.cpl    NO
178  wi01134354    ISS1:1OF1    p33031_1  18/08/2014  p33031_1.cpl    NO
179  wi01127527    ISS1:1OF1    p32988_1  18/08/2014  p32988_1.cpl    YES
180  wi01095255    ISS1:1OF1    p33027_1  18/08/2014  p33027_1.cpl    NO
181  wi01121374    ISS1:1OF1    p31107_1  18/08/2014  p31107_1.cpl    NO
182  wi01102475    ISS1:1OF1    p32782_1  18/08/2014  p32782_1.cpl    YES
183  wi01120458    ISS1:1OF1    p32929_1  18/08/2014  p32929_1.cpl    NO
184  wi01118320    ISS1:1OF1    p32753_1  18/08/2014  p32753_1.cpl    NO
185  wi01133960    ISS1:1OF1    p33034_1  18/08/2014  p33034_1.cpl    NO
186  wi01075540    ISS1:1OF1    p32492_1  18/08/2014  p32492_1.cpl    NO
187  wi01112655    ISS1:1OF1    p32870_1  18/08/2014  p32870_1.cpl    NO
188  wi01106658    ISS1:1OF1    p32812_1  18/08/2014  p32812_1.cpl    NO
189  wi01021522    ISS1:1OF1    p32863_1  18/08/2014  p32863_1.cpl    NO
190  wi01089807    ISS1:1OF1    p32957_1  18/08/2014  p32957_1.cpl    NO
191  wi01083036    ISS1:1OF1    p32571_1  18/08/2014  p32571_1.cpl    NO
192  wi01102091    ISS1:1OF1    p32744_1  18/08/2014  p32744_1.cpl    YES
193  wi01149384    ISS1:1OF1    p33147_1  21/08/2014  p33147_1.cpl    NO
194  wi01119863    ISS1:1OF1    p32923_1  18/08/2014  p32923_1.cpl    NO
195  wi01071996    ISS1:1OF1    p32461_1  18/08/2014  p32461_1.cpl    NO
196  wi01094832    iss1:1of1    p32718_1  18/08/2014  p32718_1.cpl    NO
197  wi01115369    ISS1:1OF1    p32889_1  18/08/2014  p32889_1.cpl    NO
198  wi01137737    ISS1:1OF1    p33055_1  18/08/2014  p33055_1.cpl    NO
199  wi01163826    ISS1:1OF1    p33229_1  21/08/2014  p33229_1.cpl    NO
200  wi01065248    ISS1:1OF1    p32412_1  18/08/2014  p32412_1.cpl    NO
201  wi01132222    ISS1:1OF1    p33023_1  18/08/2014  p33023_1.cpl    NO
202  wi01127874    ISS1:1OF1    p25747_1  18/08/2014  p25747_1.cpl    NO
203  wi01118819    ISS1:1OF1    p32954_1  18/08/2014  p32954_1.cpl    NO
204  wi01096907    ISS1:1OF1    p32733_1  18/08/2014  p32733_1.cpl    NO
205  wi01111194    ISS1:1OF1    p32821_1  18/08/2014  p32821_1.cpl    NO
206  wi01113712    ISS1:1OF1    p32877_1  18/08/2014  p32877_1.cpl    NO
207  wi01100508    ISS1:1OF1    p32761_1  18/08/2014  p32761_1.cpl    NO
208  wi01096910    ISS1:1OF1    p32734_1  18/08/2014  p32734_1.cpl    NO
209  wi01071659    ISS1:1OF1    p32589_1  18/08/2014  p32589_1.cpl    NO
210  wi01075149    ISS1:1OF1    p32475_1  18/08/2014  p32475_1.cpl    NO
211  wi01144609    ISS1:1OF1    p33119_1  21/08/2014  p33119_1.cpl    NO
212  wi01068922    ISS1:1OF1    p32454_1  18/08/2014  p32454_1.cpl    NO
213  wi01166065    ISS1:1OF1    p33241_1  21/08/2014  p33241_1.cpl    NO
214  wi01102296    ISS1:1OF1    p32780_1  18/08/2014  p32780_1.cpl    NO
215  wi01076948    ISS1:1OF1    p32526_1  18/08/2014  p32526_1.cpl    YES
216  wi01088055    ISS1:1OF1    p32607_1  18/08/2014  p32607_1.cpl    NO
217  wi01114695    ISS1:1OF1    p32885_1  18/08/2014  p32885_1.cpl    NO
218  wi01146766    ISS1:1OF1    p33131_1  21/08/2014  p33131_1.cpl    NO
219  wi01150596    ISS1:1OF1    p33154_1  21/08/2014  p33154_1.cpl    NO
220  wi01139981    ISS1:1OF1    p33083_1  21/08/2014  p33083_1.cpl    NO
221  wi01163362    ISS1:1OF1    p33224_1  21/08/2014  p33224_1.cpl    YES
222  wi01134211    ISS1:1OF1    p33077_1  21/08/2014  p33077_1.cpl    NO
223  wi01153104    ISS1:1OF1    p33174_1  21/08/2014  p33174_1.cpl    NO
224  wi01153896    ISS1:1OF1    p33185_1  21/08/2014  p33185_1.cpl    NO
225  wi01150083    ISS1:1OF1    p33152_1  21/08/2014  p33152_1.cpl    NO
226  wi01151870    ISS1:1OF1    p33162_1  21/08/2014  p33162_1.cpl    YES
227  wi01096718    ISS1:1OF1    p33138_1  21/08/2014  p33138_1.cpl    YES
228  wi01136640    ISS1:1OF1    p33052_1  21/08/2014  p33052_1.cpl    NO
229  wi01164281    ISS1:1OF1    p33232_1  21/08/2014  p33232_1.cpl    NO
230  wi01165461    ISS1:1OF1    p33237_1  21/08/2014  p33237_1.cpl    NO
231  wi01171467    ISS1:1OF1    p33270_1  21/08/2014  p33270_1.cpl    NO
232  wi01142100    ISS1:1OF1    p33090_1  21/08/2014  p33090_1.cpl    NO
233  wi01170424    ISS1:1OF1    p33260_1  21/08/2014  p33260_1.cpl    NO
234  wi01142792    ISS1:1OF1    p33099_1  21/08/2014  p33099_1.cpl    NO
235  wi01155909    ISS1:1OF1    p33192_1  21/08/2014  p33192_1.cpl    NO
236  wi01119736    ISS1:1OF1    p33094_1  21/08/2014  p33094_1.cpl    NO
```

```
237  wi01160967    ISS1:1OF1    p33213_1  21/08/2014  p33213_1.cpl    NO
238  wi01165870    ISS1:1OF1    p33238_1  21/08/2014  p33238_1.cpl    NO
239  WI11032038    ISS1:1OF1    p33022_1  21/08/2014  p33022_1.cpl    NO
240  wi01138136    ISS1:1OF1    p33191_1  21/08/2014  p33191_1.cpl    NO
241  wi01163521    ISS1:1OF1    p33226_1  21/08/2014  p33226_1.cpl    NO
242  wi01152195    ISS1:1OF1    p33163_1  21/08/2014  p33163_1.cpl    YES
243  wi01068011    ISS1:1OF1    p33182_1  21/08/2014  p33182_1.cpl    NO
244  wi01147091    ISS1:1OF1    p33137_1  21/08/2014  p33137_1.cpl    NO
245  wi01151898    ISS1:1OF1    p33175_1  21/08/2014  p33175_1.cpl    NO
246  wi01147983    ISS1:1OF1    p33141_1  21/08/2014  p33141_1.cpl    NO
247  wi01163048    ISS1:1OF1    p33223_1  21/08/2014  p33223_1.cpl    YES
248  wi01165881    ISS1:1OF1    p33239_1  21/08/2014  p33239_1.cpl    NO
249  wi01134799    ISS1:1OF1    p33069_1  21/08/2014  p33069_1.cpl    NO
250  wi01146543    ISS1:1OF1    p33097_1  21/08/2014  p33097_1.cpl    NO
251  wi01150802    ISS1:1OF1    p33156_1  21/08/2014  p33156_1.cpl    NO
252  wi01154253    ISS1:1OF1    p33206_1  21/08/2014  p33206_1.cpl    NO
253  wi01143987    ISS1:1OF1    p33134_1  21/08/2014  p33134_1.cpl    NO
254  WI01154952    ISS1:1OF1    p33184_1  21/08/2014  p33184_1.cpl    NO
255  wi01157590    ISS1:1OF1    p33252_1  21/08/2014  p33252_1.cpl    NO
256  wi01146289    ISS1:1OF1    p33146_1  21/08/2014  p33146_1.cpl    NO
257  wi01153039    ISS1:1OF1    p17588_1  21/08/2014  p17588_1.cpl    NO
258  wi01153844    ISS1:1OF1    p33172_1  21/08/2014  p33172_1.cpl    NO
259  wi01135146    ISS1:1OF1    p33033_1  21/08/2014  p33033_1.cpl    NO
260  wi01146705    ISS1:1OF1    p33129_1  21/08/2014  p33129_1.cpl    NO
261  wi01154485    ISS1:1OF1    p33194_1  21/08/2014  p33194_1.cpl    NO
MDP>LAST SUCCESSFUL MDP REFRESH :2014-08-21 08:43:42(Local Time)
MDP>USING DEPLIST ZIP FILE DOWNLOADED :2014-08-20 11:48:22(est)
```

Appendix B

Avaya Communication Server 1000E R7.6 Lineside E1 Channel.

```
>ld 20
TN   004 0 10 00  VIRTUAL
TYPE 500
CDEN 4D
CUST 0
ERL  00000
WRLS NO
DN   3100 0     MARP
     ANIE 0
AST  YES
IAPG 1
HUNT
TGAR 0
LDN  NO
NCOS 0
SGRP 0
RNPG 0
XLST
SCI  0
SCPW
SFLT NO
CAC_CIS 3
CAC_MFC 0
CLS  UNR DIP FBD XFA WTA THFD FND HTD ONS
     LPR XRD AGRD CWD SWD MWD RMMD SMWD LPD XHD SLKD CCSD LND TVD
     CFTD SFD MRD C6A CNID CLBD AUTU
     ICDD CDMD LLCN EHTD MCTD
     GPUD DPUD CFXA ARHD OVDD AGTA CLTD LDTD ASCD SDND
     MBXD CPFA CPTA UDI RCC HBTD IRGD  DDGA NAMA MIND
     NRWD NRCD NROD SPKD CRD PRSD MCRD
     EXR0 SHL SMSD ABDD CFHD DNAA DNDY DNO3
     CWND USMD USRD CCBD BNRD OCBD RTDD RBDD RBHD FAXD CNUD CNAD PGND FTTU
     FDSD NOVD CDMR PRED MCDD T87D SBMD PKCH MPTD ELCD
PLEV 02
PUID
UPWD
SPID NONE
PRI  01
AACD YES
AACS YES
ACQ  AS: TN,AST-DN,AST-POSID
ASID 17
SFNB 1  2  3  4  5  6  7  8  9  10  11  12  13  15  16  17  18  19  21  22  23  24
25  26  28  29  31  33  34  35  36  37  38  39
SFRB 1  2  15  32  33  34  35  36  37  38  39
USFB 1  2  3  4  5  6  7  9  10  11  12  13  14  15
CALB 0  1  3  4  5  6  8  9  10  11  12
FCTB
MLWU_LANG 0
FTR  ACD 1650 113100
        AGN
FTR  OSP 1
FTR  ISP 255
DATE 12 AUG 2014
```

Avaya Communication Server 1000E R7.6 Control Directory Number.

```
>ld 23
ACD000
MEM AVAIL: (U/P): 36303288    USED U P: 8447134 129447    TOT: 44879869
DISK SPACE NEEDED: 115 KBYTES
ACD DNS             AVAIL:  1986    USED:    14    TOT:  2000
REQ  prt
TYPE cdn
CUST 0
CDN  6100

TYPE CDN
CUST 0
CDN  6100
FRRT
SRRT
FROA NO
UUI  NO
MURT
CDSQ NO
DFDN 1650
NAME NO
CMB  NO
CEIL 2047
CLRO NO
OVFL NO
TDNS NO
AACQ YES
ASID 17
SFNB 17  18  19  33  34  35  36  37  38  39
USFB 1  2  3  4  5  6  7  9  10  11  12  13  14  15
CALB 0  1  2  3  4  5  6  8  9  10  11  12
CNTL YES
VSID
HSID
CWTH 1
BYTH 0
OVTH 2047

MEM AVAIL: (U/P): 36303288    USED U P: 8447134 129447    TOT: 44879869
DISK SPACE NEEDED: 115 KBYTES
ACD DNS             AVAIL:  1986    USED:    14    TOT:  2000
REQ
```