



## Avaya Solution & Interoperability Test Lab

# **Application Notes for Configuring Capita Secure Information Solutions DS3000 with Avaya Aura® Session Manager R7.0.1 and Avaya Communication Server 1000 R7.6 using SIP Trunks - Issue 1.0**

## **Abstract**

These Application Notes describe the configuration steps for provisioning Capita Secure Information Solutions DS3000 to interoperate with Avaya Aura® Session Manager R7.0.1 and Avaya Communication Server 1000 R7.6.

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.

## 1. Introduction

These Application Notes describe the configuration steps for provisioning DS3000 from Capita Secure Information Solutions to interoperate with Avaya Aura® Session Manager R7.0.1 connected to an Avaya Communication Server 1000 R7.6 (CS1000). 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 one primary connection to the Avaya Solution, a SIP connection to Avaya Aura ® Session Manager. The DS3000 supports basic call control including hold and transfer.

Please note that this setup allows for non-Automatic Call Distributed (ACD) calls only. The configuration setup in an ACD or Contact Center environment is outlined in the Application Notes titled *Application Notes for Configuring Capita Secure Information Solutions DS3000 with Avaya Aura® Contact Center R7.0.1 and Avaya Communication Server 1000 R7.6 using a Lineside E1 Connection*.

## 2. General Test Approach and Test Results

The interoperability compliance testing evaluates the ability of the DS3000 application to make and receive calls to and from Avaya 1140E UNIStim, SIP and digital deskphones. All calls destined for the DS3000 both locally and from the PSTN are routed to the DS3000 over SIP trunks using Session Manager to route the calls.

**Note:** A UDP Entity link was setup in order to make calls between Session Manager and the DS3000.

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:

- **Calls to CS1000 extensions** – Ensure that calls can be made to CS1000 extensions from the DS3000.
- **Calls to DS3000 Operators** – Ensure that calls can be made to the DS3000 operators from CS1000 extensions.
- **Calls to PSTN from DS3000 Operators** - Ensure that calls can be made from the DS3000 to PSTN across the SIP trunk through the CS1000.
- **Calls from PSTN into DS3000 Operators** – Ensure that calls can be made to the DS3000 from the PSTN by calling into the CS1000 and across the SIP trunk to the DS3000.
- **Hold/transfer and conference functionality**– Verify that calls can be placed on hold and transferred and conferenced.
- **Caller information is preserved on all calls to/from DS3000** – Ensure that the correct CLID information is preserved.
- **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 observation.

1. Issue with SIP phones calling to Capita. There is an issue when calling from a SIP phone, where the set shows “Media Negotiation Failure”. The Capita can call into the SIP phone but the SIP phone cannot call Capita. This error occurs upon call answer. Possible issue with the ‘200 OK’ received from DS3000 with the SDP information.
2. CLID is not being updated correctly upon transfer this was the case when the CS1000 was doing the transfer the DS3000 were not updated with the new CLID once the transfer was completed. The DS3000 is either not updating its own GUI correctly or it is not taking the updates for the display information from the “Contact” or the “P-Asserted-Identity” headers.
3. Issue observed with CLID where the CS1000 set is not updated upon transfer. Possible issue with CS1000 not handling REFER messages properly, ticket raised with CS1000 team, CS1000-7653.

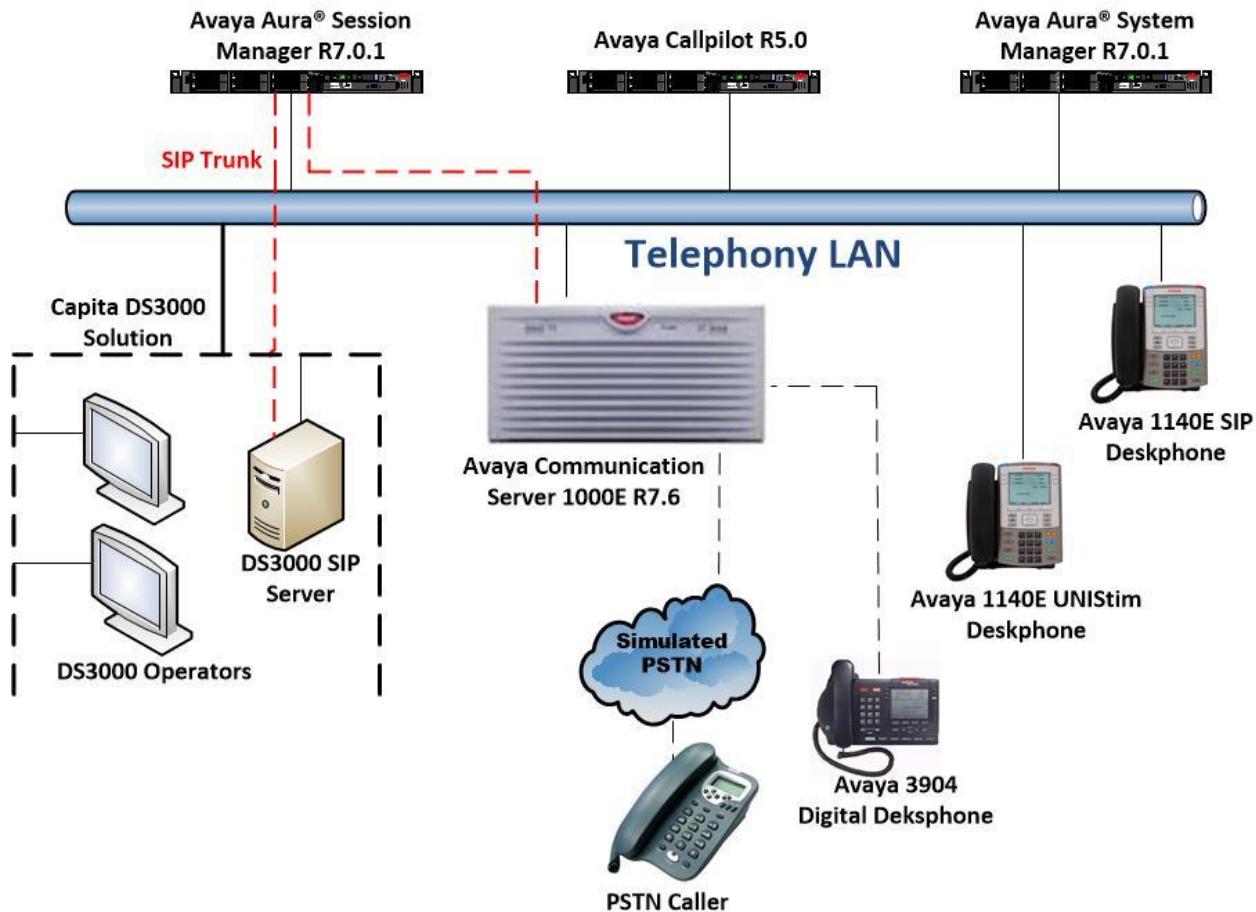
## 2.3. Support

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](mailto:csis.info@capita.co.uk)

### 3. Reference Configuration

Figure 1 shows the setup for compliance testing Capita's DS3000 with CS1000 and Session Manager using SIP signalling over SIP trunks to pass callers from the CS1000 to the DS3000 Operators.



**Figure 1: Connection of Capita DS3000 with Avaya Communication Server 1000 R7.6 and Avaya Aura® Session Manager R7.0.1**

## 4. Equipment and Software Validated

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

Device Description	Versions Tested
Avaya Communication Server 1000 running on CPPM	R7.6 (See <b>Appendix A</b> for Patch details)
Avaya Aura® System Manager running on a virtual server	System Manager 7.0.1.2 Build No. - 7.0.0.0.16266 Software Update Revision No: 7.0.1.2.086007 Service Pack 2
Avaya Aura® Session Manager running on a virtual server	Session Manager R7.0 SP2 Build No. – 7.0.1.2.701230
Avaya Call Pilot 600r Server	Avaya Call Pilot Version 5.00.41 Patch Line-up: CP50041SU08S CP500508G09C
Avaya 1140 UNIStim Deskphone	UNIStim V0625C8Q
Avaya 1140 SIP Deskphone	SIP 04.04.28.00
Avaya 3904 Digital set	Core Firmware 024 Flash Firmware 094
Capita DS3000 Solution Kit (DSX Converged Versions 2017 R1 and later) - Aculab Dual Redundant SIP Server	Release 33x Series  V6.6.4

## 5. Configure Avaya Communication Server 1000

It is assumed that a fully functioning CS1000 is in place with the necessary licensing and with SIP trunks in place to Session Manager. See **Appendix B** for a printout of the SIP route, d-channel, and trunk information. For further information on the configuration of CS1000 please see reference [1] in **Section 11** of these Application Notes. “PuTTY” is used to administer the CS1000. Using PuTTY, open an SSH Session to the Node IP address of the CS1000, log in to the CS1000 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 CS1000 in the form of a QSIG ISDN connection, the configuration of which is outside the scope of these Application Notes.

### 5.1. Configure a Dial Plan for Capita DS3000

A Coordinated Dial Plan is added to place calls across the SIP trunk to the DS3000. Add a Route List Block (**RLB**) to place calls over the SIP route that is already configured on the system. Note that an **RLB** may already be in place but the following procedure shows the addition of a new RLB. Enter overlay 86 to configure a new RLB by typing **LD 86** at the > prompt. A new Route List Index (**RLI**) is added with an **ENTR 0** of that of the SIP route used.

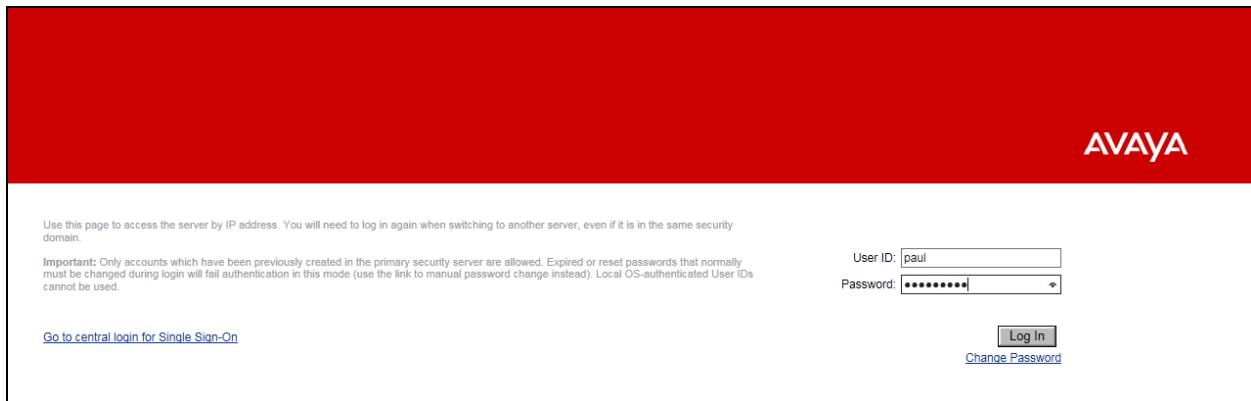
Prompt	Response	Description
>	<b>LD 86</b>	Enter Overlay 86
REQ	new	new/add
CUST	0	Customer number (default is 0)
FEAT	<b>r1b</b>	Route List Block
<b>RLI</b>	20	Route List index Number (any unused number)
<b>ENTR</b>	<b>0</b>	First Entry (0-2)
ROUT	20	Route Number (See <b>Appendix B</b> for info on Route 20)
DMI	0	Digit Manipulation Table (default is 0)
Return to end		

Once the **RLB** is added, the Coordinated Dial Plan (**CDP**) is added in the form of a Distance Steering Code (**DSC**). Note that in the example below, **50000** is the **DSC** as this is the extension number used for the DS3000 Application during the compliance testing. Enter overlay 87 to add a new **CDP** by typing **LD 87** at the > prompt.

Prompt	Response	Description
>	<b>LD 87</b>	Enter Overlay 87
REQ	new	new/add
CUST	0	Customer number (default is 0)
FEAT	<b>cdp</b>	Coordinated Dial Plan
TYPE	<b>dsc</b>	Distance Steering Code
DSC	<b>50000</b>	Extension number of the DS3000 Application
FLEN	5	Ext Length
DSP	LSC	DSP Type (Least Cost Routing)
RLI	20	Which RLB to use (Enter the RLB setup above)
Return to end		

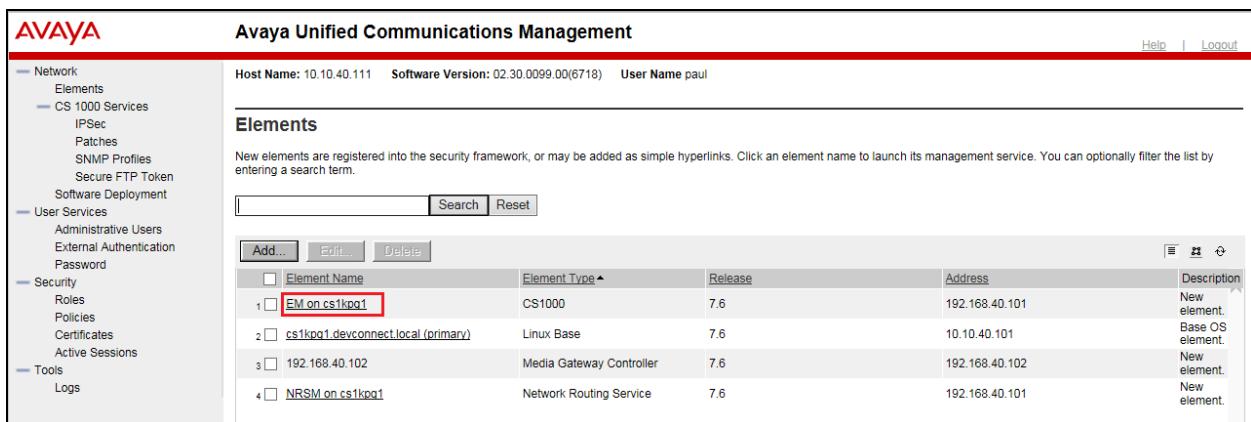
## 6. Configure Avaya Communication Server 1000 Signalling Server

Access to the CS1000 Signalling Server is achieved by logging into System Manager using a Web Browser by entering `http://<FQDN>/SMGR`, or logging directly into the CS1000 Unified Communication Manager (UCM) as is shown below. Log in using appropriate credentials.



The image shows the Avaya System Manager login page. It features a red header with the Avaya logo. Below the header, there is a message: "Use this page to access the server by IP address. You will need to log in again when switching to another server, even if it is in the same security domain." A note below states: "Important: Only accounts which have been previously created in the primary security server are allowed. Expired or reset passwords that normally must be changed during login will fail authentication in this mode (use the link to manual password change instead). Local OS-authenticated User IDs cannot be used." On the right side, there are input fields for "User ID" (containing "paul") and "Password" (containing "\*\*\*\*\*"). Below these fields are "Log In" and "Change Password" buttons. At the bottom left, there is a link "Go to central login for Single Sign-On".

The following screen appears showing the various **Elements**, select **EM on cs1kpg1** (note this name may appear different depending on the system).



The image shows the Avaya Unified Communications Management interface. The top navigation bar includes "AVAYA", "Avaya Unified Communications Management", "Help", and "Logout". The left sidebar contains links for Network (Elements, CS 1000 Services, IPSec, Patches, SNMP Profiles, Secure FTP Token, Software Deployment), User Services (Administrative Users, External Authentication, Password), Security (Roles, Policies, Certificates, Active Sessions), and Tools (Logs). The main content area displays the "Elements" section. It shows a table with columns: Element Name, Element Type, Release, Address, and Description. The table contains four rows:

	Element Name	Element Type	Release	Address	Description
1	EM on cs1kpg1	CS1000	7.6	192.168.40.101	New element.
2	cs1kpg1.devconnect.local (primary)	Linux Base	7.6	10.10.40.101	Base OS element.
3	192.168.40.102	Media Gateway Controller	7.6	192.168.40.102	New element.
4	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 CS1000. In the example below this **Node ID** is **111**. Open this node by clicking on **111** highlighted below.

**AVAYA CS1000 Element Manager**

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

**IP Telephony Nodes**  
Click the Node ID to view or edit its properties.

<input type="checkbox"/>	Node ID	Components	Enabled Applications	ELAN IP	Node/TLAN IPv4	Node/TLAN IPv6	Status
<input type="checkbox"/>	111	1	SIP Line, LTPS, Gateway (SIPGw)	-	10.10.40.111	-	Synchronized

Show:  Nodes  Component servers and cards  IPv6 address

Select **Gateway (SIPGw)** highlighted.

**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: <input type="text" value="255.255.255.0"/>	Subnet mask: <input type="text" value="255.255.255.0"/>
Node IPv6 address: <input type="text"/>	
<b>IP Telephony Node Properties</b> <ul style="list-style-type: none"> <li>• <a href="#">Voice Gateway (VGW) and Codecs</a></li> <li>• <a href="#">Quality of Service (QoS)</a></li> <li>• <a href="#">LAN</a></li> <li>• <a href="#">SNTP</a></li> <li>• <a href="#">Numbering Zones</a></li> <li>• <a href="#">MCDN Alternative Routing Treatment (MALT) Causes</a></li> </ul>	
<b>Applications (click to edit configuration)</b> <ul style="list-style-type: none"> <li>• <a href="#">SIP Line</a></li> <li>• <a href="#">Terminal Proxy Server (TPS)</a></li> <li>• <b>Gateway (SIPGw)</b> <input checked="" type="checkbox"/></li> <li>• <a href="#">Personal Directories (PD)</a></li> <li>• <a href="#">Presence Publisher</a></li> <li>• <a href="#">IP Media Services</a></li> </ul>	

\* Required Value.

**Associated Signaling Servers & Cards**

<input type="checkbox"/>	Hostname	Type	Deployed Applications	ELAN IP	TLAN IPv4	Role
<input type="checkbox"/>	cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	192.168.40.101	10.10.40.101	Leader

Show:  IPv6 address

Enter the correct **SIP domain name** note this will be referenced again in **Section 7.1**.

The screenshot shows the AVAYA CS1000 Element Manager interface. The left sidebar contains a navigation tree with categories like UCM Network Services, Home, Links, System, IP Network, Nodes, Servers, Media Cards, Maintenance and Reports, Zones, Host and Route Tables, Network Address Translation, QoS Thresholds, Personal Directories, Unicode Name Directory, Interfaces, Engineered Values, Emergency Services, Software, Customers, Routes and Trunks, Dialing and Numbering Plans, and Electronic Switched Network. The main content area is titled "Node ID: 111 - Virtual Trunk Gateway Configuration Details". It has tabs for General, SIP Gateway Settings, and SIP Gateway Services. Under General, there is a section for "Virtual Trunk Network Health Monitor". The "SIP domain name" field is set to "devconnect.local" and is highlighted with a red box. Other fields include "Local SIP port" (5060), "Gateway endpoint name" (CS1KPG1), "Gateway password" (empty), "Application node ID" (111), and "Enable failsafe NRS" (unchecked). A note states: "Note: FailSafe NRS cannot be enabled, if all servers in the node have NRS application deployed." At the bottom, there are "Save" and "Cancel" buttons.

Scroll down to **Proxy Or Redirect Server: Proxy Server Route 1** and enter the IP Address of the Session Manager for the **Primary TLAN IP address**. Ensure the **Port** number is set to **5060** and the **Transport protocol** is set to **TCP**, everything else can be left as default.

### Node ID: 111 - Virtual Trunk Gateway Configuration Details

[General](#) | [SIP Gateway Settings](#) | [SIP Gateway Services](#)

**Proxy Or Redirect Server:**

**Proxy Server Route 1:**

Primary TLAN IP address:  The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port:  (1 - 65535)

Transport protocol:  TCP

Options:  Support registration  
 Primary CDS proxy

Secondary TLAN IP address:  The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port:  (1 - 65535)

Transport protocol:  TCP

Options:  Support registration

Ensure the same details are filled in for the **Proxy Server Route 2**. Click on **Save** at the bottom right of the screen.

### Node ID: 111 - Virtual Trunk Gateway Configuration Details

[General](#) | [SIP Gateway Settings](#) | [SIP Gateway Services](#)

Primary CDS proxy

**Proxy Server Route 2:**

Primary TLAN IP address:  The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port:  (1 - 65535)

Transport protocol:  TCP

Options:  Registration not supported  
 Primary CDS proxy

**CLID Presentation:**

Country code (CCC):

Area code:  NPA in North America

Number translation: Strip:  Prefix:  CLID display format:  
Subscriber (SN):   <CCC><Area code><SN>

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

**Save** **Cancel**

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

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

Node ID:	111 * (D-9999)	Call server IP address:	192.168.40.101 *	T LAN address type:	<input checked="" type="radio"/> IPv4 only <input type="radio"/> IPv4 and IPv6
Embedded LAN (ELAN)		Telephony LAN (T LAN)			
Gateway IP address:	192.168.40.1 *	Node IPv4 address:	10.10.40.111 *	Subnet mask:	255.255.255.0 *
Subnet mask:	255.255.255.0 *	Node IPv6 address:			
<b>IP Telephony Node Properties</b>		<b>Applications (click to edit configuration)</b>			
<ul style="list-style-type: none"> <li>Voice Gateway (VGW) and Codecs</li> <li>Quality of Service (QoS)</li> <li>LAN</li> <li>SNTP</li> <li>Numbering Zones</li> <li>MCDN Alternative Routing Treatment (MALT)</li> <li>Causes</li> </ul>		<ul style="list-style-type: none"> <li>SIP Line</li> <li>Terminal Proxy Server (TPS)</li> <li>Gateway (SIPGw)</li> <li>Personal Directories (PD)</li> <li>Presence Publisher</li> <li>IP Media Services</li> </ul>			
<small>* Required Value.</small>					
<input style="border: 2px solid red; padding: 2px 10px; margin-right: 10px;" type="button" value="Save"/> <input type="button" value="Cancel"/>					

**Associated Signaling Servers & Cards**

Select to add	Add	Remove	Make Leader	Print   Refresh		
Hostname	Type	Deployed Applications	ELAN IP	T LAN IPv4	Role	
cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	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.

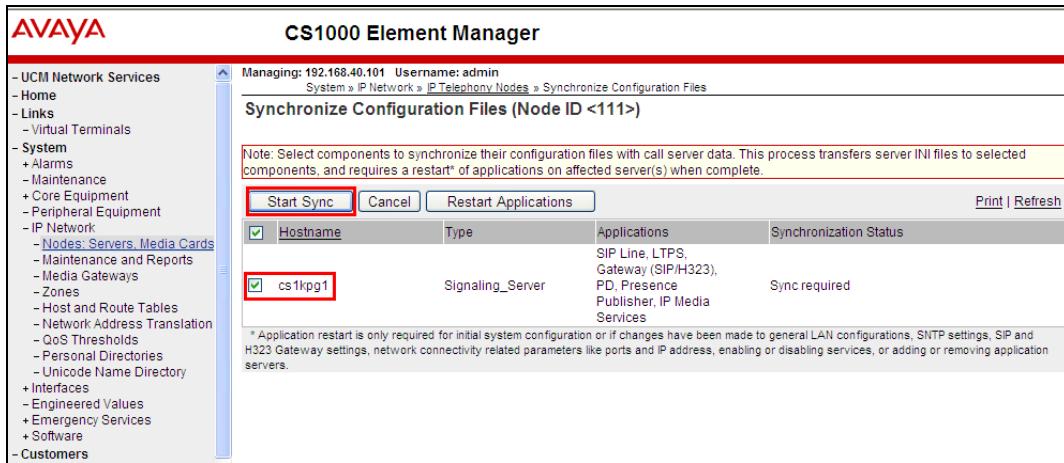
**Transfer Now...** You will be given an option to select individual servers, or transfer to all.

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

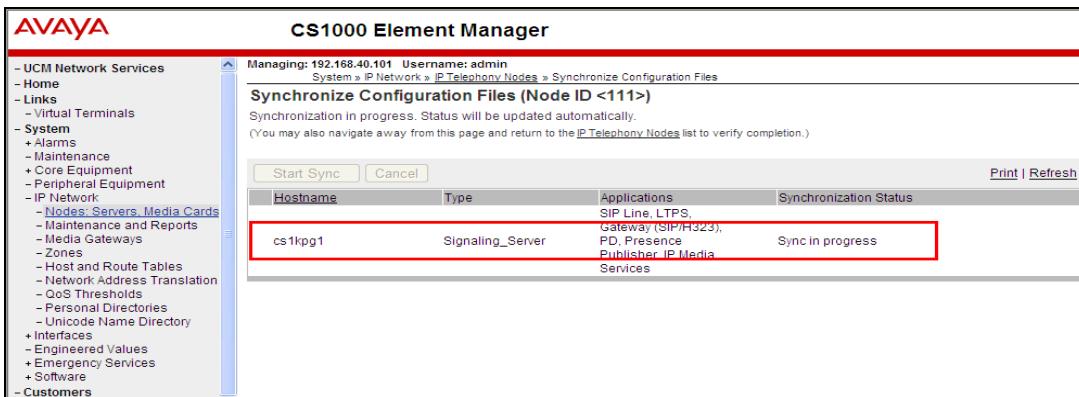
**Nodes, Servers, Media Cards**

- UCM Network Services
- Home
- Links
  - Virtual Terminals
- System
  - + Alarms
  - Maintenance
  - + Core Equipment
  - Peripheral Equipment
- IP Network
  - Nodes, Servers, Media Cards
  - Maintenance and Reports
  - Media Gateways
  - Zones
  - Host and Route Tables
  - Network Address Translation
  - QoS Thresholds
  - Personal Directories
  - Unicode Name Directory
- + Interfaces
- Engineered Values
- + Emergency Services
- + Software

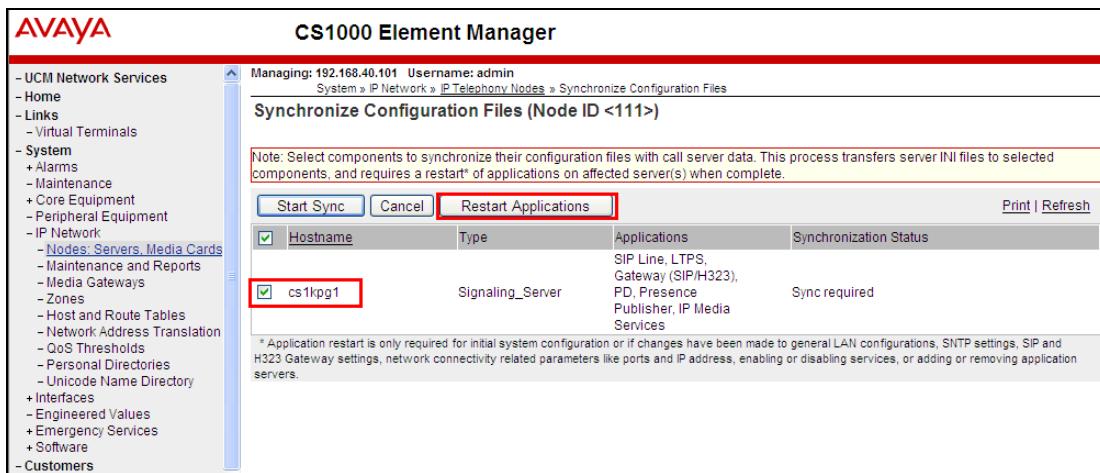
The following screen is displayed requiring that synchronization is performed followed by a restart of the Applications. Ensure the **Hostname** is ticked and click on **Start Sync**.



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

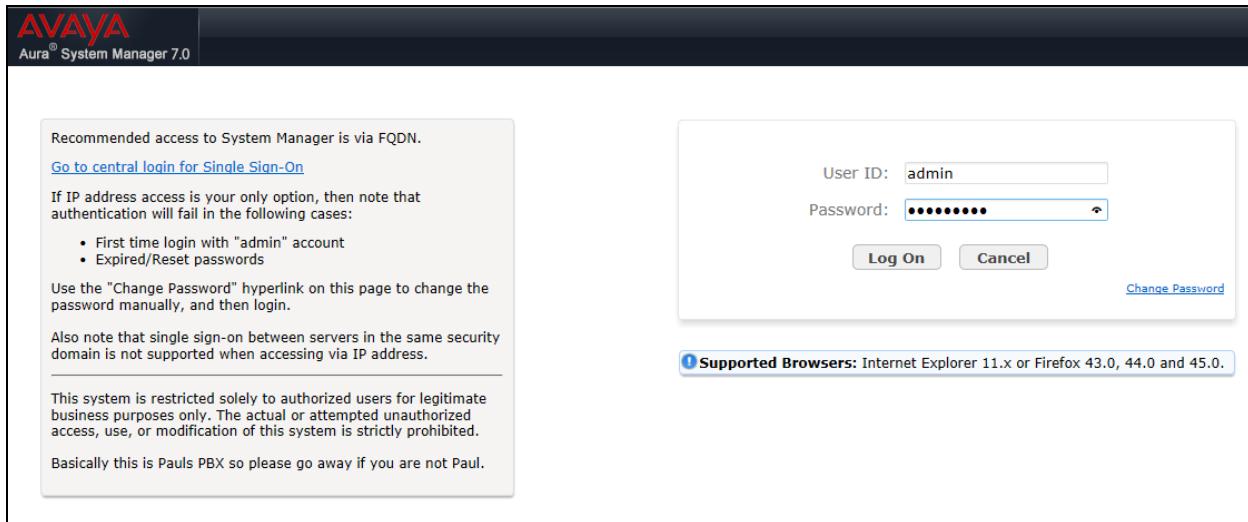


Once the Sync is completed select the **Hostname** again and click on **Restart Applications**. This will complete the Signalling Server configuration for Session Manager routing.

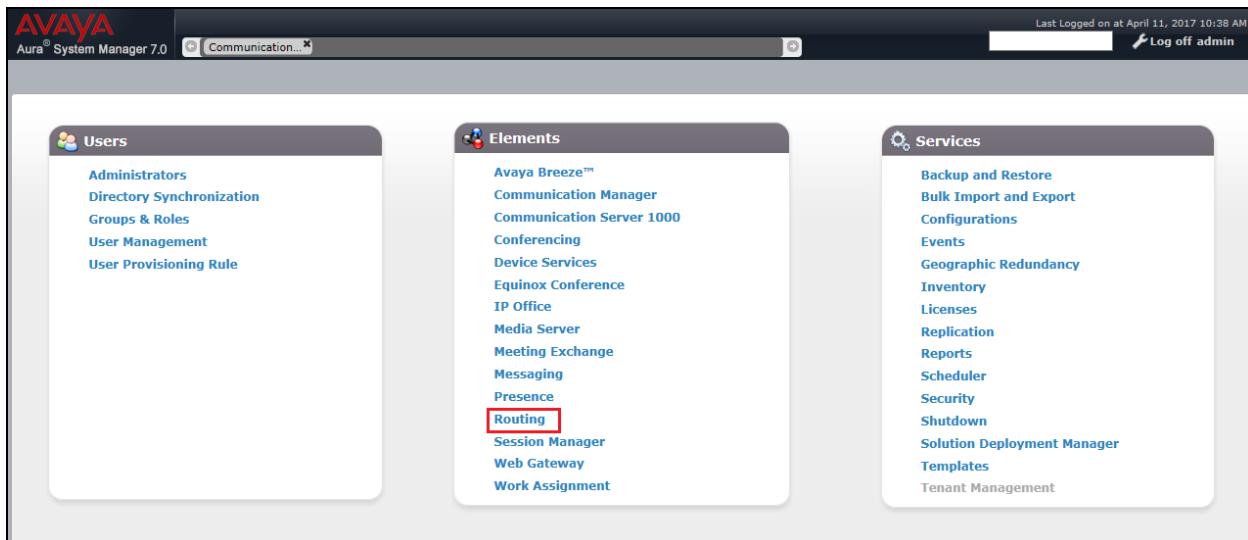


## 7. Configure Avaya Aura® Session Manager

In order to make changes in Session Manager a web session is established to System Manager. Log into System Manager by opening a web browser and navigating to <http://<System Manager IP Address>/SMGR>. Enter the appropriate credentials for the **User ID** and **Password** and click on **Log On** highlighted below.



Once logged in click on **Routing** highlighted below.

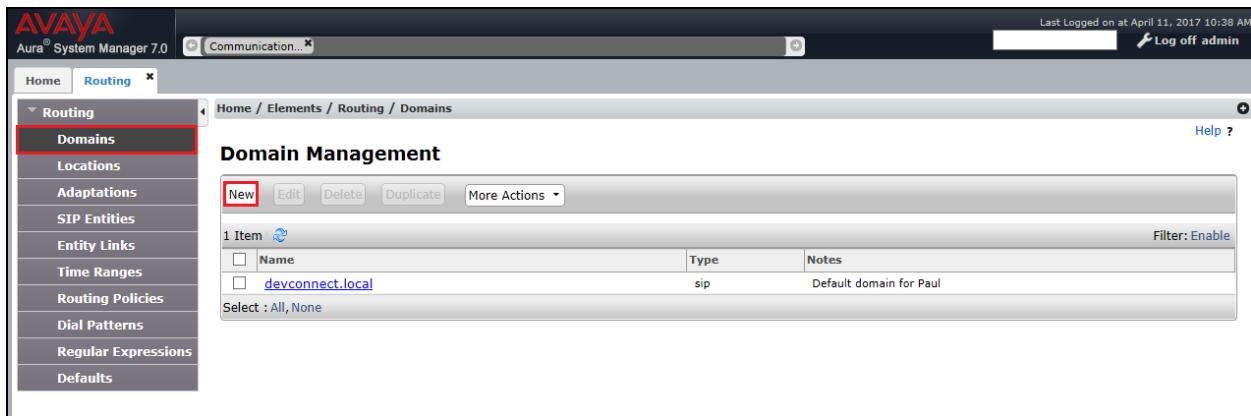


## 7.1. Domains and Locations

**Note:** It is assumed that a domain and a location have already been configured, therefore a quick overview of the domain and location that was used in compliance testing is only provided here.

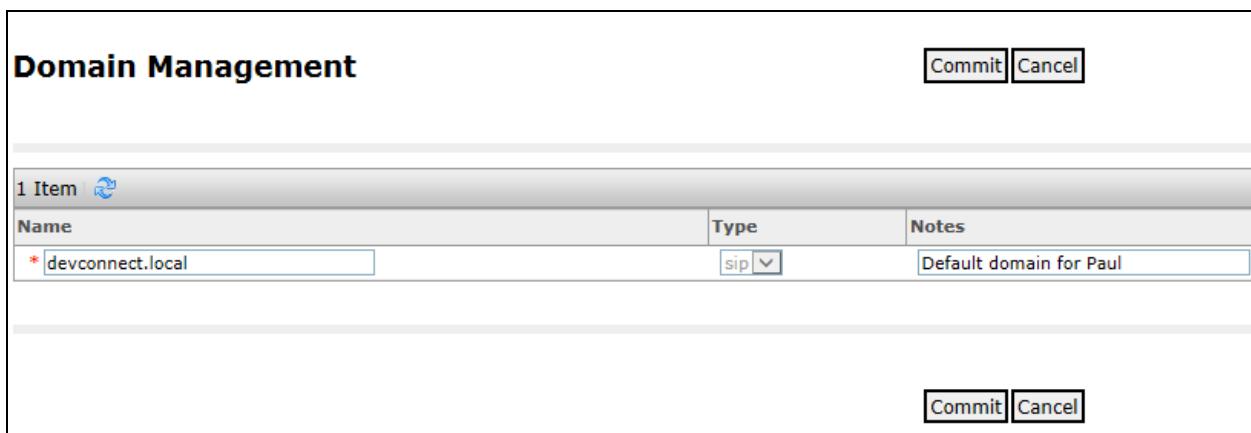
### 7.1.1. Add a new Domain

If a domain is not already in place then click on **New** as is highlighted below.



The screenshot shows the 'Domain Management' page within the 'Routing' section of the Avaya System Manager. The left sidebar has 'Domains' selected. The main area shows a table with one item: 'devconnect.local' of type 'sip' with notes 'Default domain for Paul'. A red box highlights the 'New' button in the toolbar.

Enter the domain **Name**, note this will be the same as that domain configured in **Section 5.5**, and ensure the **Type** is set to **SIP**. Click on **Commit** once done.



The dialog box is titled 'Domain Management'. It contains a table with one item: 'devconnect.local'. The 'Name' column shows the value 'devconnect.local'. The 'Type' column shows the value 'sip'. The 'Notes' column shows the value 'Default domain for Paul'. The 'Type' column has a dropdown arrow indicating it is a dropdown field. There are 'Commit' and 'Cancel' buttons at the top right and bottom right of the dialog.

## 7.1.2. Add a new Location

If a location is not already in place then one must be added to include the IP address range of the Avaya solution. Click on **New** as is highlighted below to add a new location.

The screenshot shows the AVAYA Aura System Manager 7.0 interface. The title bar reads "AVAYA" and "Aura® System Manager 7.0". The top right corner shows "Last Logged on at April 11, 2017 10:38 AM" and "Log off admin". The main navigation bar has tabs for "Home" and "Routing" (which is currently selected). Under "Routing", there are several sub-options: "Locations" (highlighted with a red box), "Adaptations", "SIP Entities", "Entity Links", "Time Ranges", "Routing Policies", "Dial Patterns", "Regular Expressions", and "Defaults". The "Locations" tab leads to a sub-page titled "Location". The top of this page has buttons for "New", "Edit", "Delete", "Duplicate", and "More Actions". A table displays one item: "PGLAB". The table columns are "Name" (with a checkbox), "Correlation" (with a checkbox), and "Notes" (containing "Pauls Lab"). A "Select : All, None" link is also present. The status bar at the bottom right says "Filter: Enable".

Enter a suitable **Name** and add the IP address ranges at the bottom of the screen under **Location Pattern** and click on **Commit** once this is done.

### Location Details

#### General

\* Name:

Notes:

#### Dial Plan Transparency in Survivable Mode

Enabled:

Listed Directory Number:

Associated CM SIP Entity:

#### Overall Managed Bandwidth

Managed Bandwidth Units:

Total Bandwidth:

Multimedia Bandwidth:

Audio Calls Can Take Multimedia Bandwidth:

#### Per-Call Bandwidth Parameters

Maximum Multimedia Bandwidth (Intra-Location):  Kbit/Sec

Maximum Multimedia Bandwidth (Inter-Location):  Kbit/Sec

\* Minimum Multimedia Bandwidth:  Kbit/Sec

\* Default Audio Bandwidth:  Kbit/sec

#### Alarm Threshold

Overall Alarm Threshold:  %

Multimedia Alarm Threshold:  %

\* Latency before Overall Alarm Trigger:  Minutes

\* Latency before Multimedia Alarm Trigger:  Minutes

#### Location Pattern

Add	Remove	
2 Items		
IP Address Pattern		Notes
<input type="checkbox"/> * 10.10.40.*		<input type="text" value="Pauls subnet"/>
<input type="checkbox"/> * 10.253.160.*	<input type="button" value="X"/>	<input type="text" value="subnet"/>
Select : <a href="#">All</a> , <a href="#">None</a>		

## 7.2. Creating an Adaptation for the DS3000

An adaptation can allow the altering of SIP Message. An adaptation is created to convert domain names to IP addresses. Select **Adaptations** from the left window and click on **New** in the main window.

The screenshot shows the Avaya System Manager 7.0 interface. The title bar says "AVAYA" and "Aura® System Manager 7.0". The top menu has "Communication..." and "Log off admin". The left sidebar is titled "Routing" and includes "Domains", "Locations", "Adaptations" (which is selected and highlighted with a red box), "SIP Entities", "Entity Links", "Time Ranges", "Routing Policies", "Dial Patterns", "Regular Expressions", and "Defaults". The main content area is titled "Adaptations" and shows a table with 4 items. The columns are "Name", "Module Name", "Module Parameters", "Egress URI Parameters", and "Notes". The items listed are:

Name	Module Name	Module Parameters	Egress URI Parameters	Notes
Capita	DigitConversionAdapter	fromto=true iodstd=devconnect.local iosrcd=devconnect.local odstd=10.253.160.206 osrcd=10.10.40.12		
CS1000MIME	CS1000Adapter	mime=no		
Etrall	DigitConversionAdapter	fromto=true iodstd=devconnect.local iosrcd=devconnect.local odstd=172.29.187.244 osrcd=10.10.40.12 MIME=no		
IPO500V2	DigitConversionAdapter	fromto=true MIME=no iodstd=devconnect.local iosrcd=devconnect.local odstd=10.10.40.20 osrcd=10.10.40.12		

Enter a suitable **Adaptation Name**, select **DigitConversionAdapter** for the **Module Name**. The **Module Parameter Type** should be set to **Name-Value Parameter**. Add the following module parameters:

- **Fromto** true
- **Iodstd** devconnect.local
- **Iosrcd** devconnect.local

The screenshot shows the "Adaptation Details" dialog box. At the top right are "Commit" and "Cancel" buttons. Below is a "General" section with fields for "Adaptation Name" (Capita), "Module Name" (DigitConversionAdapter), and "Module Parameter Type" (Name-Value Parameter). A table below lists the module parameters:

Add	Name	Value
	fromto	true
	iodstd	devconnect.local
	iosrcd	devconnect.local

Below the table are "Egress URI Parameters" and "Notes" input fields.

Add the following module parameters:

- **odstd=10.253.144.206**
- **osrcd=10.10.40.12**

In this example 10.253.160.206 is the DS3000 SIP Gateway and 10.10.40.12 is the Session Manager SM100 IP Address, these IP addresses may need to be changed to suit accordingly. **devconnect.local** is the domain name as per **Section 7.1**. Click on **Commit** once completed

**Adaptation Details**

**Commit** **Cancel**

**General**

\* Adaptation Name: Capita

\* Module Name: DigitConversionAdapter

Module Parameter Type: Name-Value Parameter

Add	Remove	Name	Value
<input type="checkbox"/>	<input type="checkbox"/>	odstd	10.253.160.206
<input type="checkbox"/>	<input type="checkbox"/>	osrcd	10.10.40.12

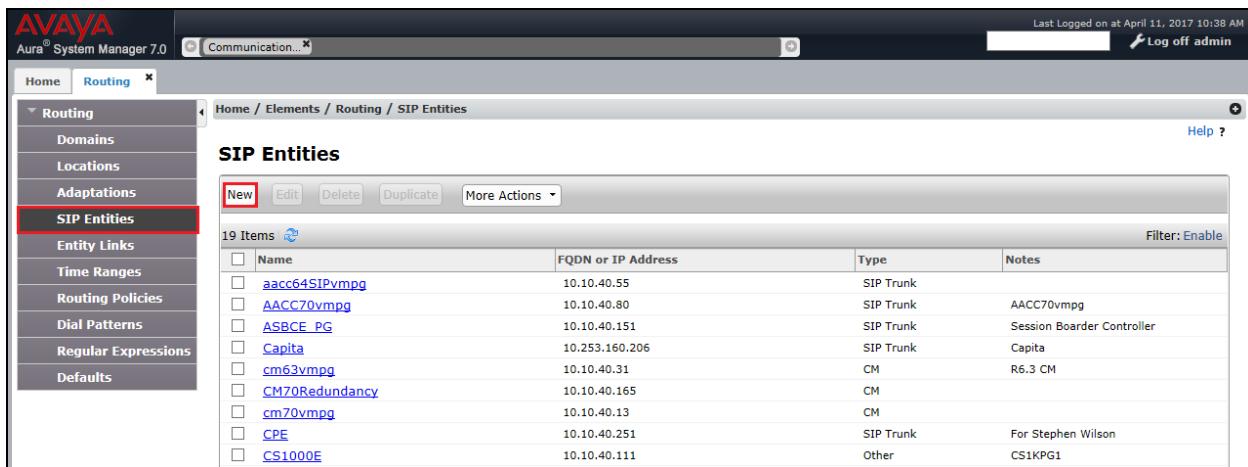
Select : All, None      Page 2 of 2

Egress URI Parameters:

Notes:

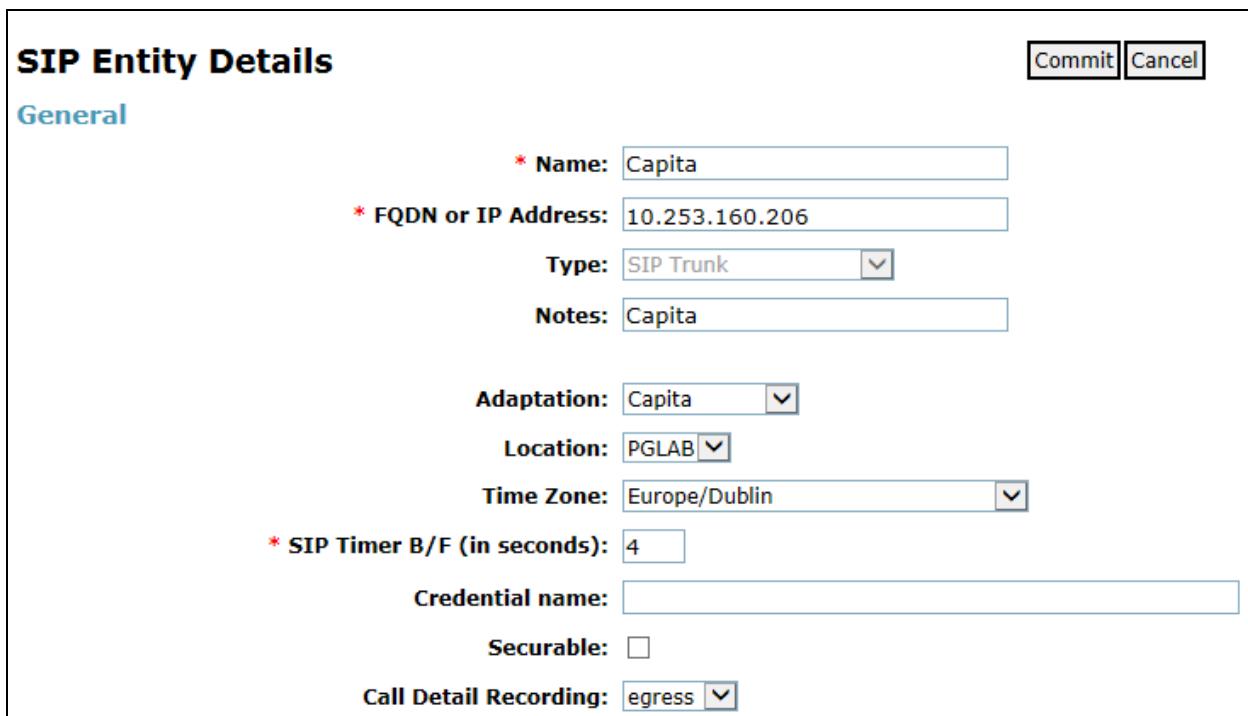
## 7.3. Adding DS3000 as a SIP Entity

Click on **SIP Entities** in the left column and select **New** in the right window.



The screenshot shows the Avaya System Manager 7.0 interface. The left sidebar has a tree view with 'Routing' expanded, showing 'Domains', 'Locations', 'Adaptations', 'SIP Entities' (which is selected and highlighted with a red box), 'Entity Links', 'Time Ranges', 'Routing Policies', 'Dial Patterns', 'Regular Expressions', and 'Defaults'. The main content area is titled 'SIP Entities' and shows a table with 19 items. The columns are 'Name', 'FQDN or IP Address', 'Type', and 'Notes'. The table includes entries like 'aacc64SIPvmpg', 'AACC70vmpg', 'ASBCE\_PG', 'Capita', 'cm63vmpg', 'CM70Redundancy', 'cm70vmpg', 'CPE', and 'CS1000E'. A 'Filter: Enable' link is at the top right of the table. The top right of the screen shows 'Last Logged on at April 11, 2017 10:38 AM' and a 'Log off admin' link.

Enter a suitable **Name** for the new SIP Entity and the **IP Address** of the DS3000, which is the floating IP address of the DS3000 SIP Server. Enter the correct **Time Zone** and **Location** and click on **Commit**.



**SIP Entity Details**

**General**

\* **Name:** Capita

\* **FQDN or IP Address:** 10.253.160.206

**Type:** SIP Trunk

**Notes:** Capita

**Adaptation:** Capita

**Location:** PGLAB

**Time Zone:** Europe/Dublin

\* **SIP Timer B/F (in seconds):** 4

**Credential name:** [empty]

**Securable:**

**Call Detail Recording:** egress

**Commit** **Cancel**

## 7.4. Adding the DS3000 Entity Link

A UDP Entity links was added for the DS3000.Click on **Entity Links** in the left column and select **New** in the main window.

The screenshot shows the Avaya System Manager 7.0 web interface. The title bar says "AVAYA" and "Aura® System Manager 7.0". The top navigation bar includes "Home", "Routing", "Communication...", "Log off admin", and a timestamp "Last Logged on at April 11, 2017 10:38 AM". The left sidebar under "Routing" has several options: Domains, Locations, Adaptations, SIP Entities, Entity Links (which is highlighted with a red box), Time Ranges, Routing Policies, Dial Patterns, Regular Expressions, and Defaults. The main content area is titled "Entity Links" and shows a table with 18 items. The columns are: Name, SIP Entity 1, Protocol, Port, SIP Entity 2, DNS Override, Port, Connection Policy, Deny New Service, and Notes. The table lists various entries like "aacc64SIPvmpg", "AACC70vmpg", etc. A "New" button is visible at the top left of the table area.

Enter a suitable **Name** for the Entity Link and select the **Session Manager SIP Entity** for **SIP Entity 1** and the newly created DS3000 Entity called **Capita** for **SIP Entity 2**. Ensure that **UDP** is selected for the **Protocol** and that **Port 5060** is used. Click on **Commit** once finished to save the new Entity Link.

The screenshot shows the "Entity Links" creation dialog. At the top right are "Help ?" and "Commit" (highlighted with a red box) and "Cancel" buttons. Below is a table with one item. The columns are: Name, SIP Entity 1, Protocol, Port, SIP Entity 2, DNS Override, Port, and Connection Policy. The "Name" field contains "\* SM\_Capita\_UDP", "SIP Entity 1" contains "\* sm70vmpg", "Protocol" is set to "UDP" (highlighted with a red box), "Port" contains "5060", "SIP Entity 2" contains "\* Capita", "DNS Override" is unchecked, "Port" is set to "5060", and "Connection Policy" is set to "trusted". At the bottom are "Commit" and "Cancel" buttons.

## 7.5. Adding the DS3000 Routing Policy

Click on **Routing Policies** in the left window and select **New** in the main window.

The screenshot shows the Avaya System Manager 7.0 interface. The left sidebar has a 'Routing' section with several options: Domains, Locations, Adaptations, SIP Entities, Entity Links, Time Ranges, **Routing Policies** (which is selected and highlighted with a red box), Dial Patterns, Regular Expressions, and Defaults. The main window title is 'Routing Policies'. Below it, there are buttons for New, Edit, Delete, Duplicate, and More Actions. A table titled '15 Items' lists routing policies with columns for Name, Disabled, Retries, Destination, and Notes. The 'Name' column lists entries like 'To\_aacc64SIPvmpg', 'To\_AACC70vmpg', etc. The 'Destination' column shows destinations like 'aacc64SIPvmpg', 'To\_AACC70vmpg', etc. The 'Notes' column provides additional details such as 'Calls to ASBCE' or 'Routing to CM63'.

Enter a suitable **Name** for the Routing Policy and click on **Select** under **SIP Entity as Destination**, highlighted below.

The screenshot shows the 'Routing Policy Details' dialog box. It has tabs for General and SIP Entity as Destination. The General tab contains fields for Name (To\_Capita), Disabled (unchecked), Retries (0), and Notes (To Capita). The SIP Entity as Destination tab has a 'Select' button highlighted with a red box. Below it is a table with columns for Name, FQDN or IP Address, Type, and Notes. There is one row in the table with the name 'To\_Capita'.

Select the **Capita** SIP Entity as shown below and click on **Select**.

SIP Entities				Help ?
				Select Cancel
SIP Entities				Filter: Enable
19 Items	Name	FQDN or IP Address	Type	Notes
<input type="radio"/> aacc64SIPvmpg	10.10.40.55	SIP Trunk		
<input type="radio"/> AACC70vmpg	10.10.40.80	SIP Trunk	AACC70vmpg	
<input type="radio"/> ASBCE_PG	10.10.40.151	SIP Trunk	Session Boarder Controller	
<input checked="" type="radio"/> Capita	10.253.160.206	SIP Trunk	Capita	
<input type="radio"/> cm63vmpg	10.10.40.31	CM	R6.3 CM	
<input type="radio"/> CM70Redundancy	10.10.40.165	CM		
<input type="radio"/> cm70vmpg	10.10.40.13	CM		
<input type="radio"/> CPE	10.10.40.251	SIP Trunk	For Stephen Wilson	
<input type="radio"/> CS1000E	10.10.40.111	Other	CS1KPG1	
<input type="radio"/> EnghouseCP	10.10.40.106	SIP Trunk	EnghouseCP	
<input type="radio"/> EP-POM	10.10.40.135	Voice Portal	EP POM Server	

The selected destination is now shown, click on **Commit** to save this.

Routing Policy Details				Help ?
				Commit Cancel
<b>General</b>				
<b>* Name:</b> <input type="text" value="To_Capita"/>				
<b>Disabled:</b> <input type="checkbox"/>				
<b>* Retries:</b> <input type="text" value="0"/>				
<b>Notes:</b> <input type="text" value="To Capita"/>				
<b>SIP Entity as Destination</b>				
<input type="button" value="Select"/>				
Name	FQDN or IP Address	Type	Notes	
Capita	10.253.160.206	SIP Trunk	Capita	

## 7.6. Adding a Dial Pattern for the DS3000

Select **Dial Patterns** in the left window and select **New** in the main window.

The screenshot shows the Avaya System Manager 7.0 interface. The left sidebar is titled "Routing" and contains the following options: Domains, Locations, Adaptations, SIP Entities, Entity Links, Time Ranges, Routing Policies, **Dial Patterns** (which is selected and highlighted with a red box), Regular Expressions, and Defaults. The main content area is titled "Dial Patterns" and shows a table of 17 items. The table columns are: Pattern, Min, Max, Emergency Call, Emergency Type, Emergency Priority, SIP Domain, and Notes. The "Pattern" column lists values such as 10, 2016, 3, 40, 450, 49, 51, 52, and 5999. The "SIP Domain" column consistently shows "devconnect.local". The "Notes" column provides additional context for each entry. A "New" button is visible at the top of the table.

Enter the required digits for the Pattern, in the example below 5000x is used, which means that 50000 – 50009 will use the Routing Policy that will be selected. **5000** is entered as the **Pattern** and the **Min** and **Max** digit length of **5** is used thus giving 5000x. Ensure that the correct domain is entered for **SIP Domain** in this example the domain created in **Section 7.1** is added. Click on **Add** under **Originating Locations and Routing Policies** in order to select this Routing Policy.

This screenshot displays two overlapping windows. The top window is titled "Dial Pattern Details" and contains a "General" section with fields for Pattern (5000), Min (5), Max (5), Emergency Call (unchecked), Emergency Priority (1), Emergency Type (empty), SIP Domain (devconnect.local), and Notes (empty). Below this is an "Originating Locations and Routing Policies" section with an "Add" button highlighted with a red box, a "Remove" button, and a table with 0 items. The table columns are: Originating Location Name, Originating Location Notes, Routing Policy Name, Rank, Routing Policy Disabled, Routing Policy Destination, and Routing Policy Notes.

Select the Originating Location, this will be the location added in **Section 7.1** select the newly created routing policy for the DS3000 created in **Section 7.5** for **Routing Policies**.

**Originating Location**

Apply The Selected Routing Policies to All Originating Locations

1 Item		Notes	Filter: Enable
<input checked="" type="checkbox"/>	Name		
<input checked="" type="checkbox"/>	PGLAB	Pauls Lab	

Select : All, None

**Routing Policies**

15 Items				Filter: Enable
<input type="checkbox"/>	Name	Disabled	Destination	Notes
<input type="checkbox"/>	To_aacc64SIPvmpg	<input type="checkbox"/>	aacc64SIPvmpg	aacc64SIPvmpg
<input type="checkbox"/>	To_AACC70vmpg	<input type="checkbox"/>	AACC70vmpg	To_AACC70vmpg
<input type="checkbox"/>	To_ASBCE	<input type="checkbox"/>	ASBCE_PG	Calls to ASBCE
<input checked="" type="checkbox"/>	To_Capita	<input type="checkbox"/>	Capita	To Capita
<input type="checkbox"/>	To_cm63vmpg	<input type="checkbox"/>	cm63vmpg	Routing to CM63
<input type="checkbox"/>	To_CM70 Redundancy	<input type="checkbox"/>	CM70Redundancy	To CM70 Redundancy
<input type="checkbox"/>	To_cm70vmpg	<input type="checkbox"/>	cm70vmpg	

With the Routing Policy selected click on **Commit** to finish adding the **Dial Pattern**.

**Dial Pattern Details**

[Help ?](#)

**General**

\* Pattern:

\* Min:

\* Max:

Emergency Call:

Emergency Priority:

Emergency Type:

SIP Domain:

Notes:

**Originating Locations and Routing Policies**

Add	Remove	1 Item	Filter: Enable				
<input type="checkbox"/>	Originating Location Name	Originating Location Notes	Routing Policy Name	Rank	Routing Policy Disabled	Routing Policy Destination	Routing Policy Notes
<input type="checkbox"/>	PGLAB	Pauls Lab	To_Capita	0	<input type="checkbox"/>	Capita	To Capita

Select : All, None

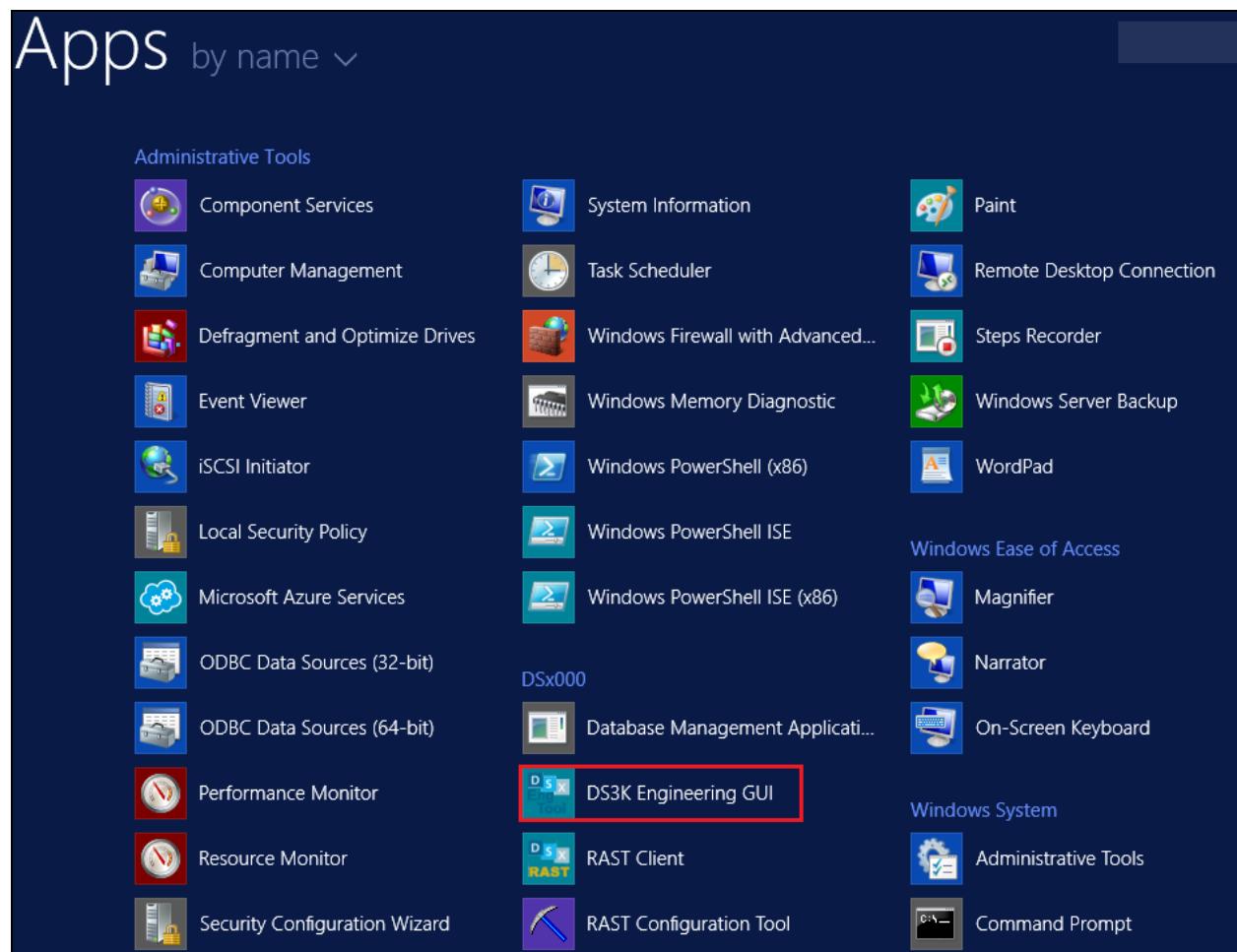
## 8. Configure Capita DS3000 Application

The following sections describe the steps required to configure the DS3000 application in order to connect successfully with Session Manager using SIP trunks.

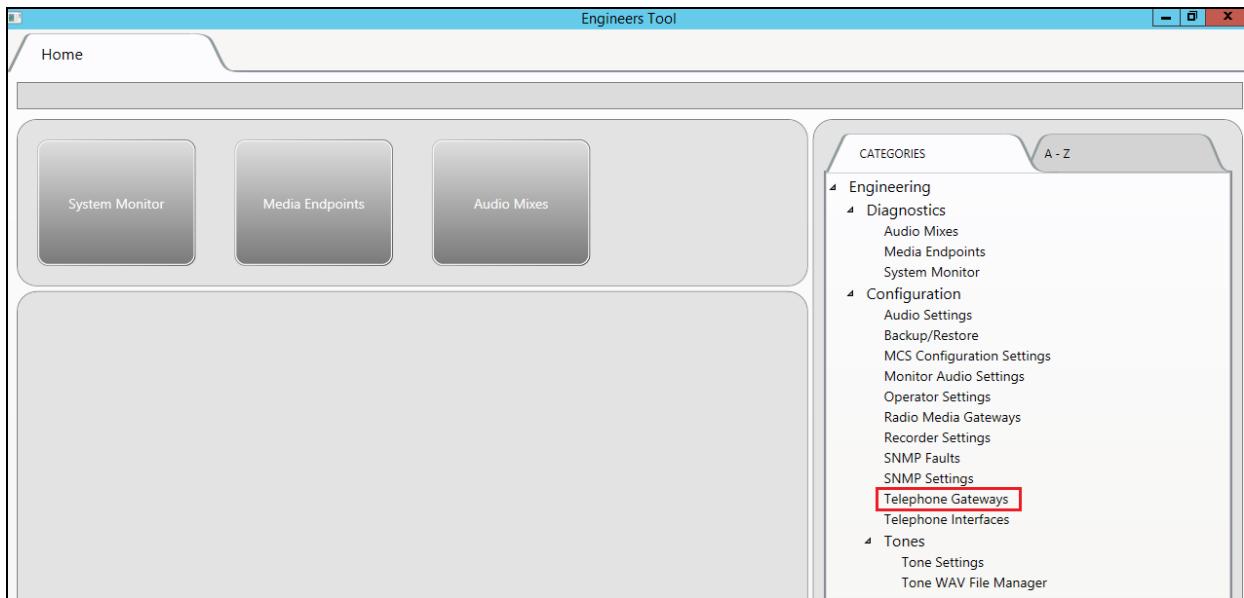
### 8.1. Configure DS3000 connection to Session Manager

The configuration for the connection to Session Manager is performed on the DS3000 FCS machine.

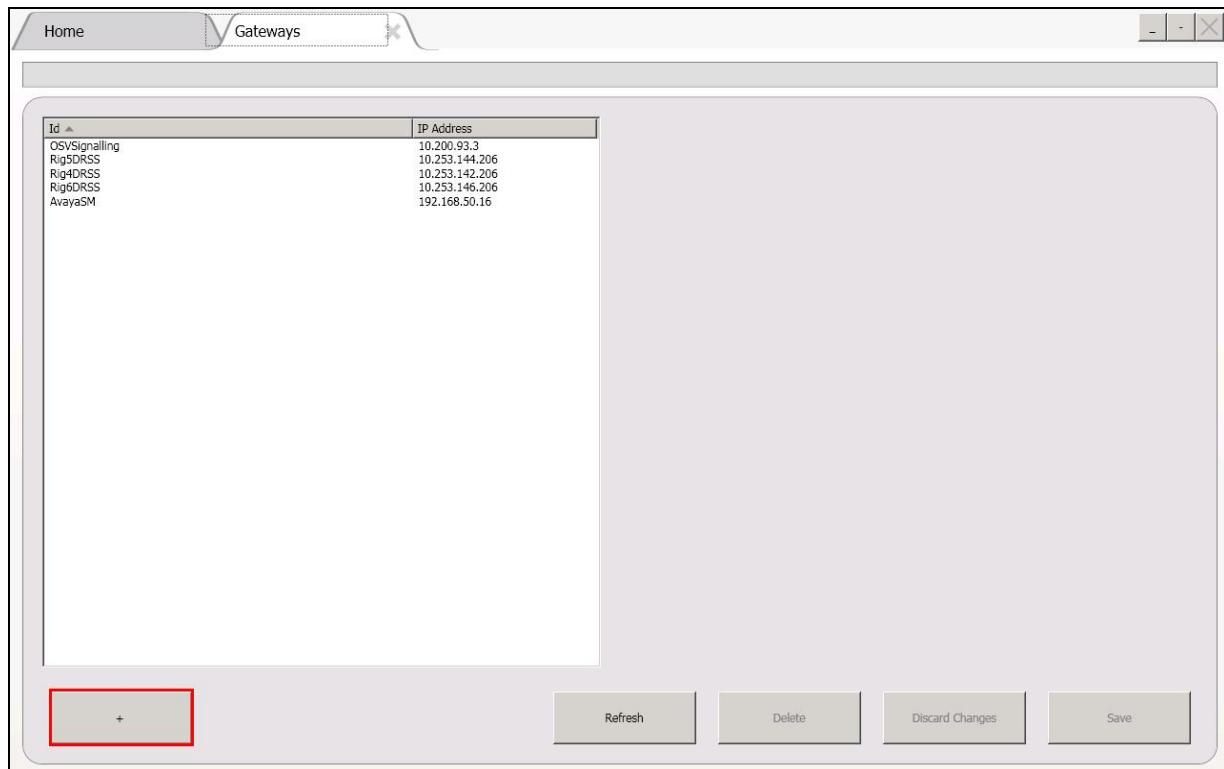
Log in to **DS3K Engineering GUI** as shown below on the DS3000 FCS Server.



Once logged in the following screen appears. Select **Telephone Gateways** in the right column, highlighted below.



The **Gateways** tab is opened. Select the + icon at the bottom left of the screen.



Fill in the **Gateway Id** and **IP Address** information. This will be the IP address of the Session Manager.

The screenshot shows the Avaya Session Manager interface with the 'Gateways' tab selected. A table lists various gateways with their IDs and IP addresses. The row for 'AvayaSessionMan' is highlighted in blue, indicating it is selected. The IP address for 'AvayaSessionMan' is shown as 10.10.40.12 in the bottom right corner.

Id	IP Address
RG6TMG01	10.253.146.111
RG6TMG02	10.253.146.113
RG6TMG03	10.253.146.115
AudioCodes	10.253.146.235
AudioCodes8FXO	10.253.146.236
Callvision	10.253.146.233
RG4DRSS	10.253.142.206
AudioCodesM1000	10.253.146.110
Asterisk	10.253.100.99
AACC6	10.12.17.14
SIPP	10.253.146.206
RG6CME	10.253.146.230
AudioCodesM2000	10.253.160.125
AvayaSessionMan	10.10.40.12
AvayalpOffice	10.10.40.20

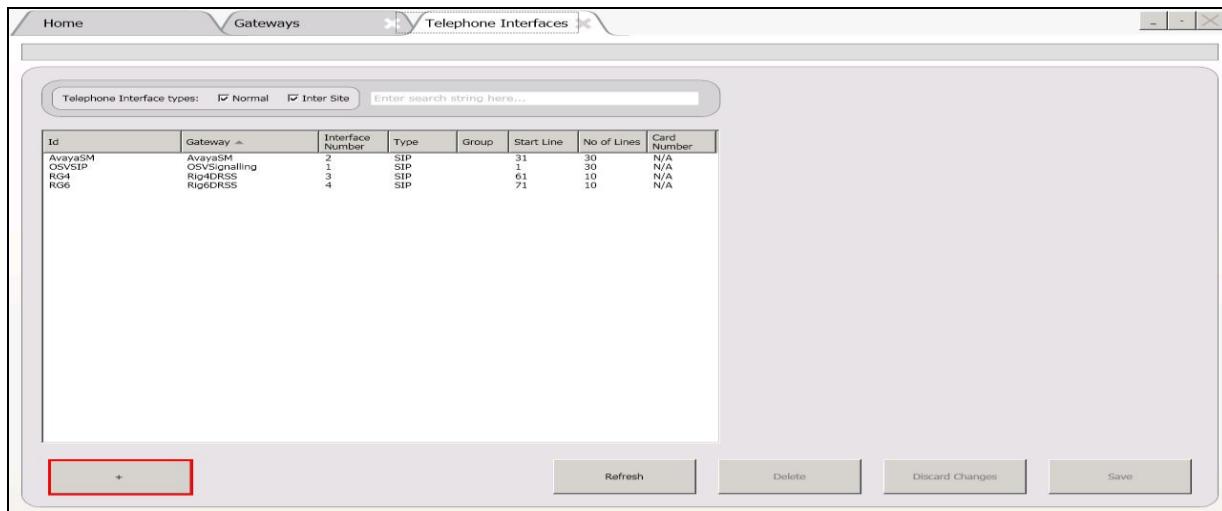
Gateway Id      AvayaSessionMan  
Address      10.10.40.12

Click on the **Home** tab and select **Telephone Interfaces** in the right column as highlighted below.

The screenshot shows the Avaya Session Manager interface with the 'Home' tab selected. On the right side, there is a sidebar with a tree view of categories. The 'Telephone Interfaces' node under the 'Engineering' category is highlighted with a red box.

- CATEGORIES A - Z
- ↳ Engineering
  - ↳ Diagnostics
    - Audio Mixes
    - Media Endpoints
    - System Monitor
  - ↳ Configuration
    - Audio Settings
    - Backup/Restore
    - MCS Configuration Settings
    - Monitor Audio Settings
    - Operator Settings
    - Radio Media Gateways
    - Recorder Settings
    - SNMP Faults
    - SNMP Settings
    - Telephone Gateways
    - Telephone Interfaces**
  - ↳ Tones
    - Tone Settings
    - Tone WAV File Manager

The **Telephone Interfaces** tab is opened. Select the + icon at the bottom left of the screen to add a new Telephone interface.



All the information in the right column must be filled in. The screen below shows the information used during compliance testing. Click on **Save** at the bottom right of the screen once all the information has been entered correctly. Set the **Operator ringing tone generation** to **generate only when there is no early media**, this will provide ringtone when there is no early media on the PBX.

ID	Gateway	Interface Number	Type	Group	Start Line	No of Lines	Card Number
Asterisk Dir	Asterisk	8	SIP	181	30	30	N/A
TI 06-02 FXO	AudioCodes8FXO	2	Analog	06	403	4	6
TI 06-01 FXO	AudioCodes8FXO	1	Analog	06	399	4	5
TMG03 Analogue	AudioCodesM1000	3	Analog	04	391	4	4
AACC Agent	AudioCodesM2000	5	DPNSS	03	1	30	N/A
<b>Avaya</b>	<b>AvayaSessionMan</b>	<b>3</b>	<b>SIP</b>	<b>91</b>	<b>30</b>	<b>3</b>	
Centrivity	Callvision	7	SIP	211	30	30	N/A
Rig4	RG4DRSS	4	SIP	121	10	10	N/A
TMG04	RG6CME	2	SIP	61	30	30	N/A
TMG01	RG6TMG01	0	DPNSS	01	151	30	4
TMG02	RG6TMG02	1	DPNSS	02	31	30	N/A
TMG03 ISDN	RG6TMG03	4	ISDN	05	395	4	4
RG6SIP	SIPP	9	SIP	241	30	30	N/A

Telephone Interface Id: **Avaya**

Gateway: **AvayaSessionMan**

Interface Number: **3**

Type: **SIP**

Group:

Start Line Number: **91**

Number of Lines: **30**

Operator ringing tone generation: **Generate only when there is no early media**

Monitor Interface: **checked**

GSIC Number for error reporting: **3**

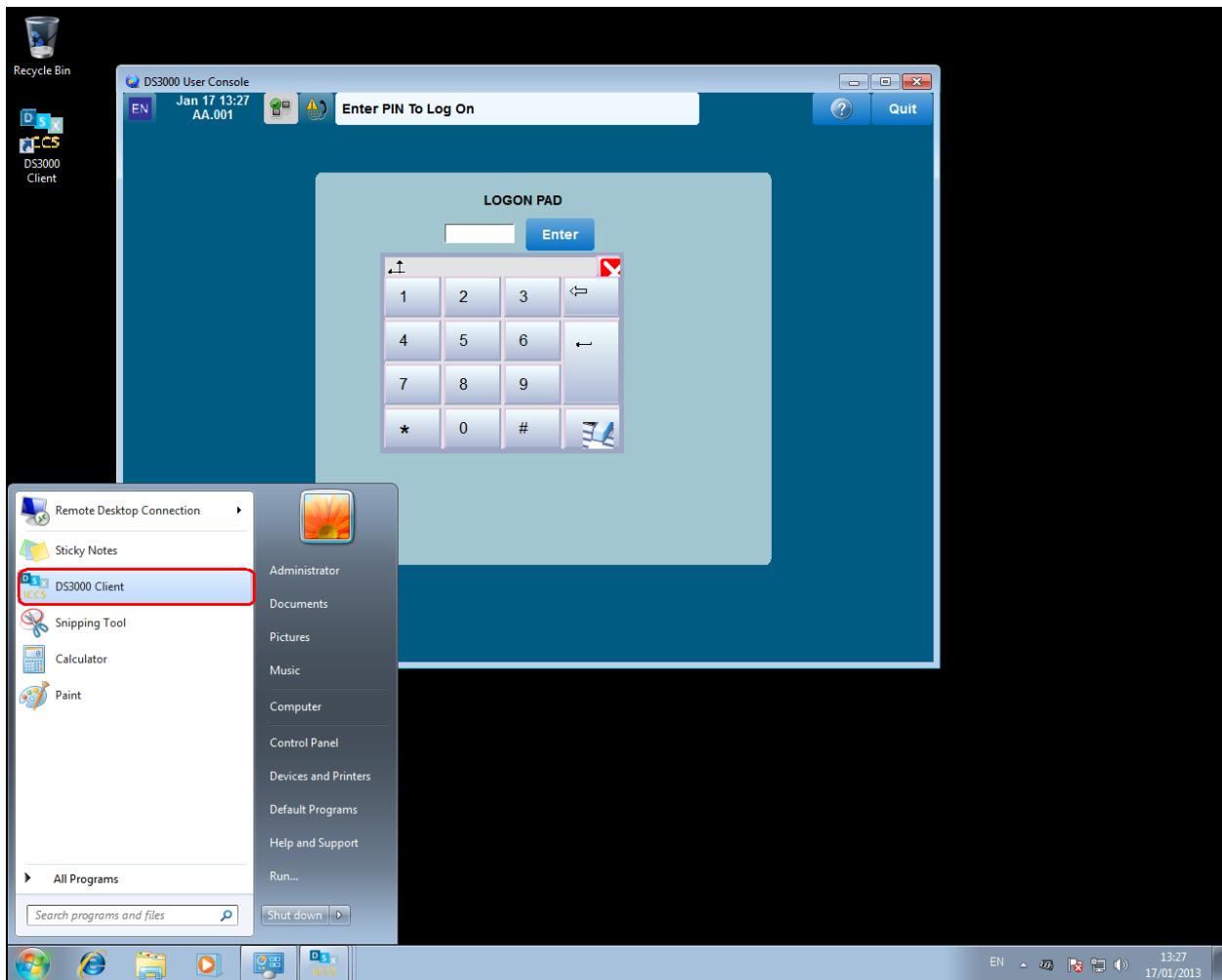
Inter Site: **unchecked**

Activate Windows  
Go to System in Control Panel to activate

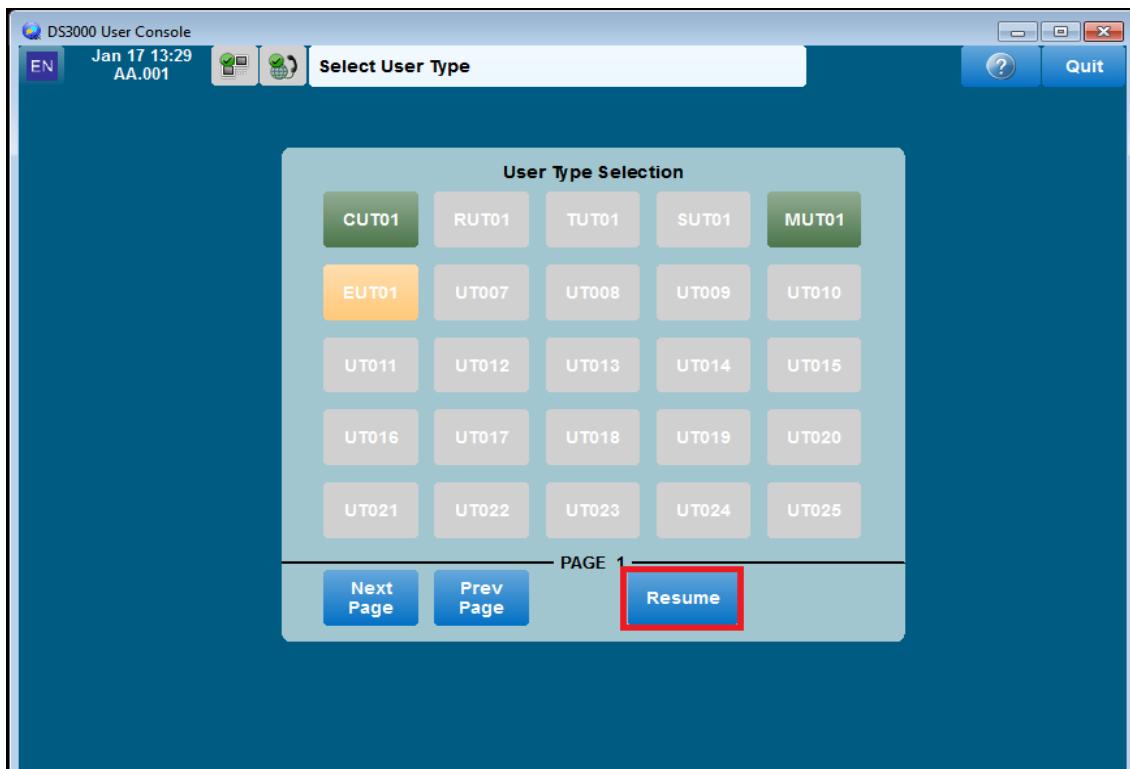
**Save**

## 8.2. Configure the DS3000 extension numbers

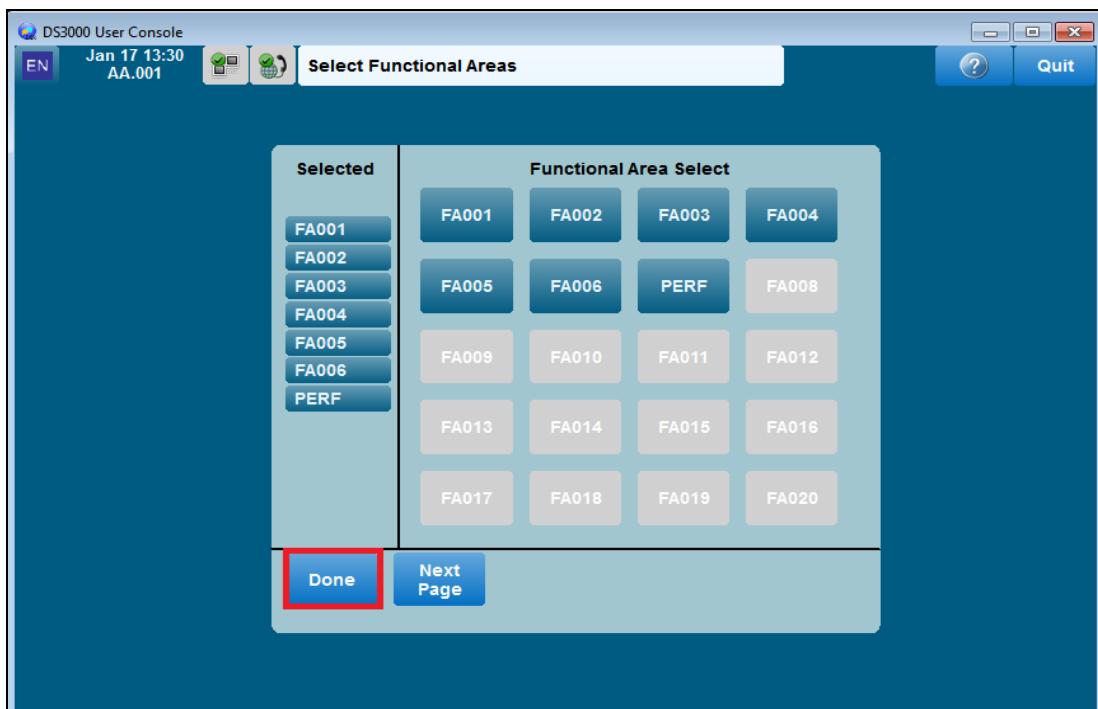
Open the **DS3000 Client** on the DS3000 Client machine. Enter the correct credentials on the **LOGON PAD**.



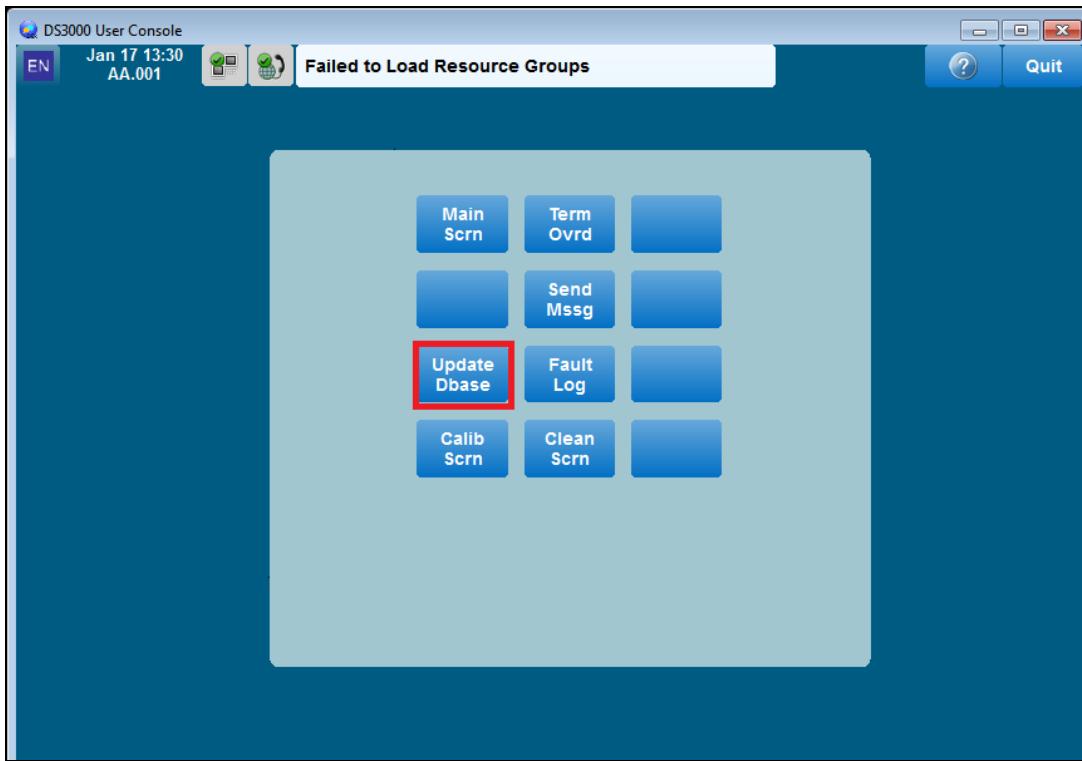
Click on **Resume** at the bottom of the screen as highlighted.



Select **Done** at the bottom of the screen as highlighted.



Click on the **UpdateDbase** button highlighted.



Click on the **Call Routes** icon highlighted in the left window. The highlighted row in the right window shows that when 3xxx is dialled that Interface 2 is used. Note: The interface numbers are as defined by the configuration entered in **Section 8.1**.

A screenshot of a software application window titled 'Call Routes'. The left side of the window has a tree view of categories: ANCIL, CARDS, COASTGUARD, DSI, RADIO, REMOTE, SCREENS, SELCALL, SOUNDS, SYSTEM, TELEPHONY, ACD Parameters, Call Routes (highlighted with a red box), Divert, DPNSS Extensions, GSM Pagers, and HandOff Groups. The right side is a table titled 'Call Routes' with 16 rows. The columns are: Undo, Edit, DigitsCompareLen, Digits, InsertLength, RoutingDigits, GSIC(0), GSIC(1), GSIC(2), and GSIC(3). The 4th row is highlighted with a red box. The data for the 4th row is: Undo (grey), Edit (lock icon), DigitsCompareLen (1), Digits (3), InsertLength (0), RoutingDigits (6), GSIC(0) (255), GSIC(1) (255), GSIC(2) (255), and GSIC(3) (255).

Select **DPNSS Extensions** in the left column highlighted. Note the entry highlighted is for the DS3000 Extension **50000**. Ensure **Accept Type** is set to **Telephone**.

The screenshot shows the Avaya PABX Setup software interface. On the left, there is a navigation tree with categories like ANCIL, CARDS, COASTGUARD, DSI, RADIO, REMOTE, SCREENS, SELCALL, SOUNDS, SYSTEM, and TELEPHONY. Under TELEPHONY, 'DPNSS Extensions' is highlighted with a red box. The main window contains a table titled 'DPNSS Extensions' with 16 rows. The columns are: Row, Undo, Edit, KeyText, QueueText, AcceptType, PageNo, Priority, DisplayGroup, DisplaySubGroup, and Col. The 'AcceptType' column for row 14 (Extension 50000) is set to 'Telephone' with a dropdown arrow, while other rows show 'Telephone' with a lock icon. The 'PageNo' column for row 14 shows '24: Avaya'. The 'DisplayGroup' and 'DisplaySubGroup' columns for row 14 are GRP-1 and SUBGRP-01 respectively.

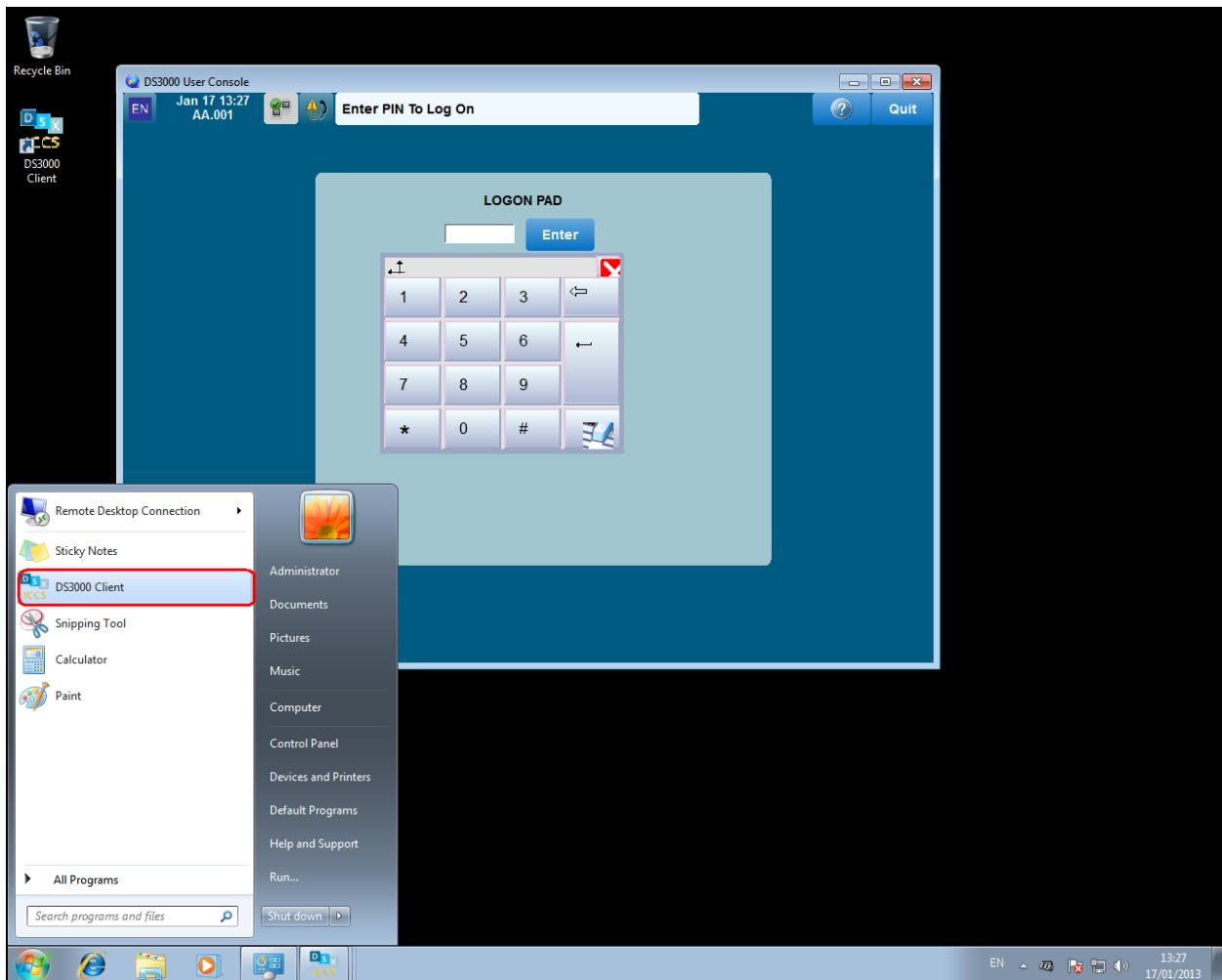
Row	Undo	Edit	KeyText	QueueText	AcceptType	PageNo	Priority	DisplayGroup	DisplaySubGroup	Col
1			EXT 49900		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
2			EXT 49901		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-02	1: T
3			EXT 49902		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
4			EXT 49903		Telephone	1: PAGE 1 (3...)	0	GRP-16	SUBGRP-32	1: T
5			EXT 49904		Telephone	1: PAGE 1 (3...)	0	GRP-7	SUBGRP-01	1: T
6			EXT 49905		Telephone	1: PAGE 1 (3...)	0	GRP-8	SUBGRP-32	1: T
7			EXT 49906		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
8			COMB 1142		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	3: T
9			EXT 49908		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
10			EXT 49909		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
11			EXT 49910		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
12			EXT 49911		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
13			EXT 49912		Telephone	1: PAGE 1 (3...)	0	GRP-2	SUBGRP-01	1: T
14			50000		Telephone	24: Avaya	0	GRP-1	SUBGRP-01	1: T
15			50001		Telephone	1: PAGE 1 (3...)	0	GRP-1	SUBGRP-01	1: T
16			50002		Telephone	1: PAGE 1 (3...)	0	GRP-1	SUBGRP-01	1: T

## 9. Verification Steps

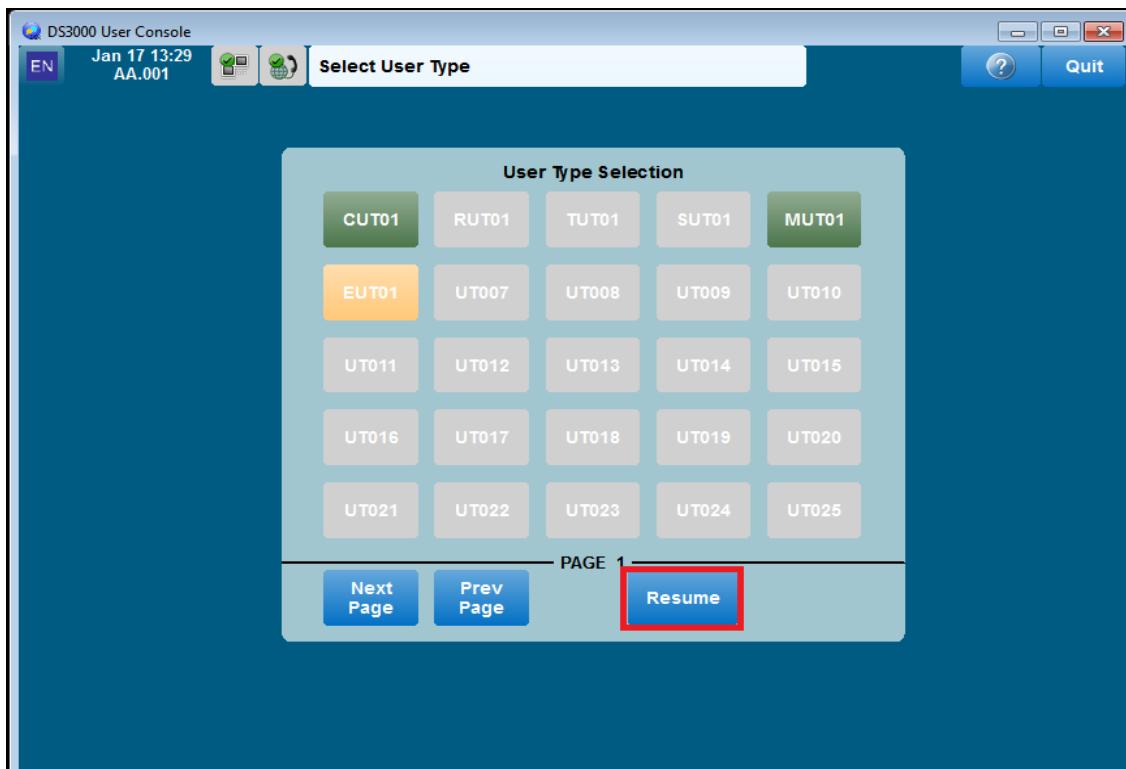
The following step can be taken to ensure that the connection between Capita's DS3000 and the Avaya solution is configured correctly. Make a call to the DS3000 and verify that the caller can be heard.

### 9.1. Verify that calls can be made to the DS3000

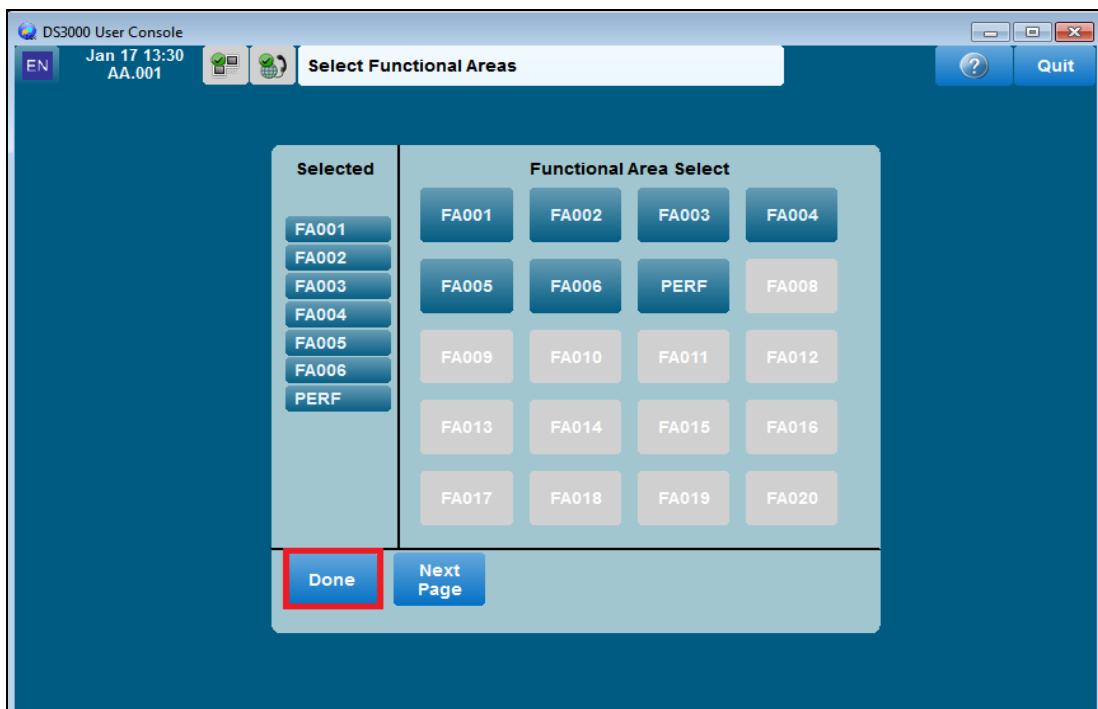
Open the **DS3000 Client** on the DS3000 Client machine. Enter the correct credentials on the **LOGON PAD**.



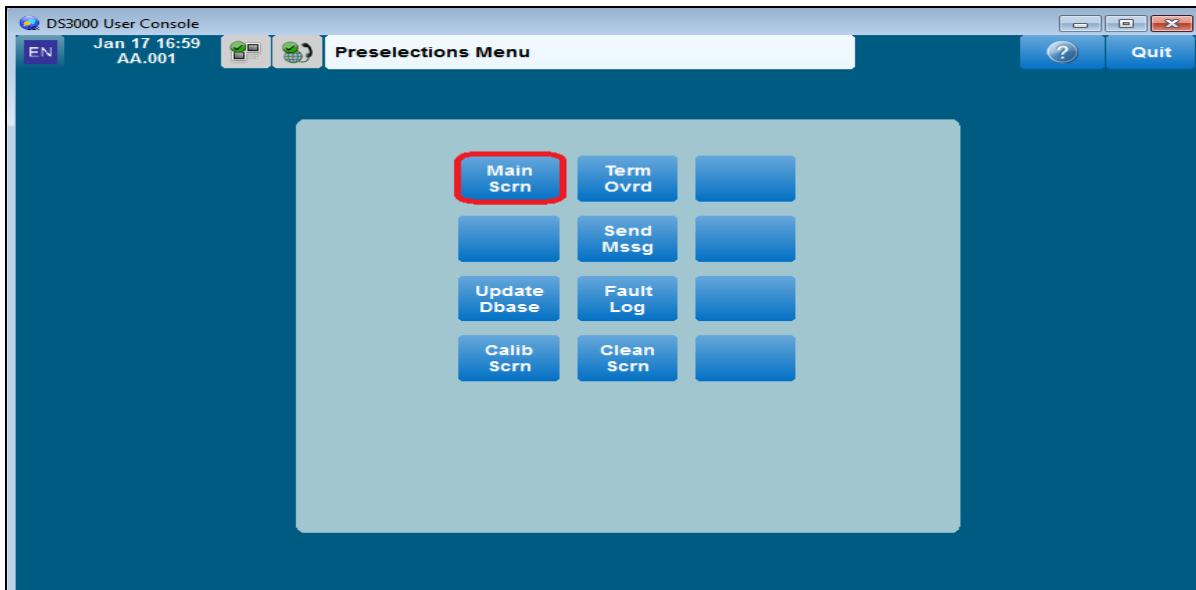
Click on **Resume** at the bottom of the screen as highlighted.



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 DS3000 the following screen should appear. Click on the **Take Call** button on the bottom right of the screen to take the call.



## 10. Conclusion

These Application Notes describe the configuration steps required for DS3000 from Capita Secure Information Solutions to successfully interoperate with Avaya Communication Server 1000 R7.6 and Avaya Aura® Session Manager R7.0.1. 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] *Administering Avaya Aura® Session Manager*, Doc # 03603324, Issue 1 Release 7.0
- [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

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

# Appendix A

## Avaya CS1000 R7.6 - Linux Patches

Product Release: 7.65.16.00						
In system patches: 8						
PATCH#	NAME	IN_SERVICE	DATE	SPECINS	TYPE	RPM
42	p31484_1	Yes	07/03/16	NO	FRU	cs1000-shared-general-7.65.16-00.i386
43	p33125_1	Yes	07/03/16	NO	FRU	cs1000-OS-1.00.00.00-00.noarch
44	p33274_1	Yes	07/03/16	YES	FRU	initscripts-8.45.25-1.e15.i386
45	p33384_1	Yes	07/03/16	NO	FRU	cs1000-OS-1.00.00.00-00.noarch
46	p33456_1	Yes	07/03/16	YES	FRU	cs1000-OS-1.00.00.00-00.noarch
47	p33493_1	Yes	07/03/16	NO	FRU	cs1000-OS-1.00.00.00-00.noarch
48	p33554_1	Yes	07/03/16	YES	FRU	cs1000-OS-1.00.00.00-00.noarch
49	p33557_1	Yes	07/03/16	YES	FRU	cs1000-OS-1.00.00.00-00.noarch
In System service updates: 42						
PATCH#	IN_SERVICE	DATE	SPECINS	REMOVABLE	NAME	
0	Yes	06/03/16	YES	YES	cs1000-patchWeb-7.65.16.23-1.i386.000	
1	Yes	04/03/16	NO	YES	cs1000-Jboss-Quantum-7.65.16.23-5.i386.000	
2	Yes	07/03/16	NO	YES	cs1000-pd-7.65.16.21-00.i386.000	
3	Yes	04/03/16	YES	YES	cs1000-dmWeb-7.65.16.23-4.i386.000	
4	Yes	06/03/16	YES	YES	cs1000-linuxbase-7.65.16.23-21.i386.000	
5	Yes	07/03/16	NO	YES	cs1000-shared-carrdtct-7.65.16.21-01.i386.000	
6	Yes	07/03/16	NO	YES	cs1000-shared-tpselect-7.65.16.21-01.i386.000	
7	Yes	07/03/16	NO	yes	cs1000-dbcom-7.65.16.21-00.i386.000	
8	Yes	07/03/16	NO	YES	cs1000-snmp-7.65.16.21-00.i686.000	
9	Yes	07/03/16	NO	YES	cs1000-shared-omm-7.65.16.21-2.i386.000	
10	Yes	07/03/16	YES	YES	cs1000-emWebLocal_6-0-7.65.16.22-1.i386.000	
11	Yes	07/03/16	YES	YES	cs1000-ipsec-7.65.16.22-1.i386.000	
12	Yes	07/03/16	YES	YES	cs1000-csmWeb-7.65.16.22-2.i386.000	
13	Yes	07/03/16	YES	YES	cs1000-csoneksvrmgr-7.65.16.22-5.i386.000	
14	Yes	07/03/16	YES	YES	cs1000-baseWeb-7.65.16.22-4.i386.000	
15	Yes	07/03/16	YES	YES	cs1000-oam-logging-7.65.16.22-4.i386.000	
16	Yes	07/03/16	YES	YES	cs1000-csv-7.65.16.22-2.i386.000	
17	Yes	07/03/16	YES	YES	cs1000-nrsm-7.65.16.22-3.i386.000	
18	Yes	07/03/16	YES	YES	cs1000-mscTone-7.65.16.22-2.i386.000	
19	Yes	07/03/16	YES	YES	cs1000-mscMusc-7.65.16.22-4.i386.000	
20	Yes	07/03/16	YES	YES	cs1000-mscConf-7.65.16.22-2.i386.000	
21	Yes	07/03/16	YES	YES	cs1000-mscAnnc-7.65.16.22-2.i386.000	
22	Yes	07/03/16	YES	YES	cs1000-mscAttn-7.65.16.22-2.i386.000	
23	Yes	07/03/16	NO	YES	cs1000-gk-7.65.16.22-1.i386.000	
24	Yes	07/03/16	YES	YES	cs1000-shared-xmsg-7.65.16.22-1.i386.000	
25	Yes	07/03/16	NO	YES	cs1000-sps-7.65.16.23-1.i386.000	
26	Yes	07/03/16	YES	YES	cs1000-cs-7.65.P.100-03.i386.000	
27	Yes	07/03/16	NO	YES	bash-3.2-33.e15_11.4.i386.000	
28	Yes	07/03/16	YES	YES	cs1000-shared-pbx-7.65.16.23-1.i386.000	
29	Yes	07/03/16	YES	YES	cs1000-emWeb_6-0-7.65.16.23-3.i386.000	
30	Yes	07/03/16	NO	YES	libxml2-2.6.26-2.1.25.e15_11.i386.000	
31	Yes	07/03/16	NO	YES	libxml2-python-2.6.26-2.1.25.e15_11.i386.000	
32	Yes	07/03/16	NO	YES	freetype-2.2.1-32.e15_9.1.i386.000	
33	Yes	07/03/16	NO	YES	cs1000-cs1000WebService_6-0-7.65.16.23-1.i386.000	
34	Yes	07/03/16	YES	YES	cs1000-ftrpkg-7.65.16.23-1.i386.000	
35	Yes	07/03/16	NO	YES	cs1000-cppmUtil-7.65.16.23-4.i686.000	
36	Yes	07/03/16	NO	YES	tzdata-2015a-1.e15.i386.000	
37	Yes	07/03/16	YES	YES	cs1000-tps-7.65.16.23-15.i386.000	
38	Yes	07/03/16	YES	YES	kernel-2.6.18-406.e15.i686.000	
39	Yes	07/03/16	YES	YES	jdk-1.6.0_101-fcs.i586.000	
40	Yes	07/03/16	YES	YES	cs1000-vtrk-7.65.16.23-76.i386.000	
41	Yes	07/03/16	YES	YES	cs1000-bcc-7.65.16.23-10.i386.000	

## Avaya CS1000 R7.6 - Call Server Patches

IN-SERVICE PEPS						
PAT#	CR #	PATCH REF #	NAME	DATE	FILENAME	SPECINS
0000	wi01199336	ISS1:1OF1	p33410_1	20/12/2016	p33410_1.cpl	NO
0001	wi01088055	ISS1:1OF1	p32607_1	20/12/2016	p32607_1.cpl	NO
0002	wi01098433	ISS1:1OF1	p32736_1	20/12/2016	p32736_1.cpl	NO
0003	wi01199608	ISS1:1OF1	p33414_1	20/12/2016	p33414_1.cpl	NO
0004	wi01146254	ISS1:1OF1	p33127_1	20/12/2016	p33127_1.cpl	NO
0005	wi01075149	ISS1:1OF1	p32475_1	20/12/2016	p32475_1.cpl	NO
0006	wi01070585	ISS1:1OF1	p32383_1	20/12/2016	p32383_1.cpl	NO
0007	wi01128512	ISS1:1OF1	p32997_1	20/12/2016	p32997_1.cpl	NO
0008	wi01098783	ISS1:1OF1	p32748_1	20/12/2016	p32748_1.cpl	NO
0009	wi01133960	ISS1:1OF1	p33034_1	20/12/2016	p33034_1.cpl	NO
0010	wi01137694	ISS1:1OF1	p33081_1	20/12/2016	p33081_1.cpl	NO
0011	wi01068011	ISS1:1OF1	p33182_1	20/12/2016	p33182_1.cpl	NO
0012	wi01153896	ISS1:1OF1	p33185_1	20/12/2016	p33185_1.cpl	NO
0013	wi01115369	ISS1:1OF1	p32889_1	20/12/2016	p32889_1.cpl	NO
0014	wi01171418	ISS1:1OF1	p33278_1	20/12/2016	p33278_1.cpl	NO
0015	CS1000-7113	ISS1:1OF1	p33623_1	20/12/2016	p33623_1.cpl	NO
0016	wi01201882	ISS1:1OF1	p33427_1	20/12/2016	p33427_1.cpl	NO
0017	wi01079444	ISS1:1OF1	p32564_1	20/12/2016	p32564_1.cpl	NO
0018	wi01089519	ISS1:1OF1	p32665_1	20/12/2016	p32665_1.cpl	NO
0019	wi01065248	ISS1:1OF1	p32412_1	20/12/2016	p32412_1.cpl	NO
0020	wi01052968	ISS1:1OF1	p32540_1	20/12/2016	p32540_1.cpl	NO
0021	wi01144609	ISS1:1OF1	p33119_1	20/12/2016	p33119_1.cpl	NO
0022	wi01132244	ISS1:1OF1	p33041_1	20/12/2016	p33041_1.cpl	NO
0023	wi01045058	ISS1:1OF1	p32214_1	20/12/2016	p32214_1.cpl	NO
0024	wi01053920	ISS1:1OF1	p32303_1	20/12/2016	p32303_1.cpl	NO
0025	wi01169714	ISS1:1OF1	p33335_1	20/12/2016	p33335_1.cpl	NO
0026	wi01151870	ISS1:1OF1	p33162_1	20/12/2016	p33162_1.cpl	YES
0027	wi01099300	iss1:1of1	p32704_1	20/12/2016	p32704_1.cpl	NO
0028	wi01171467	ISS1:1OF1	p33270_1	20/12/2016	p33270_1.cpl	NO
0029	wi01207693	ISS1:1OF1	p33452_1	20/12/2016	p33452_1.cpl	NO
0030	wi01120705	ISS1:1OF1	p32930_1	20/12/2016	p32930_1.cpl	NO
0031	wi00959458	ISS1:1OF1	p31551_1	20/12/2016	p31551_1.cpl	NO
0032	wi01197054	ISS1:1OF1	p33397_1	20/12/2016	p33397_1.cpl	NO
0033	wi01065118	ISS1:1OF1	p32397_1	20/12/2016	p32397_1.cpl	NO
0034	wi01181174	ISS1:1OF1	p33316_1	20/12/2016	p33316_1.cpl	NO
0035	wi01053597	ISS1:1OF1	p32304_1	20/12/2016	p32304_1.cpl	NO
0036	wi01071996	ISS1:1OF1	p32461_1	20/12/2016	p32461_1.cpl	NO
0037	wi01127527	ISS1:1OF1	p32988_1	20/12/2016	p32988_1.cpl	YES
0038	wi01008182	ISS1:1OF1	p33277_1	20/12/2016	p33277_1.cpl	NO
0039	wi01096842	ISS1:1OF1	p32731_1	20/12/2016	p32731_1.cpl	NO
0040	wi01068922	ISS1:1OF1	p32454_1	20/12/2016	p32454_1.cpl	NO
0041	wi01182880	ISS1:1OF1	p33328_1	20/12/2016	p33328_1.cpl	NO
0042	wi01138136	ISS1:1OF1	p33191_1	20/12/2016	p33191_1.cpl	NO
0043	CS1000-6738	ISS1:1OF1	p33495_1	20/12/2016	p33495_1.cpl	NO
0044	wi01156086	ISS1:1OF1	p33269_1	20/12/2016	p33269_1.cpl	NO
0045	wi01045144	ISS1:1OF1	p33202_1	20/12/2016	p33202_1.cpl	NO
0046	wi01120458	ISS1:1OF1	p32929_1	20/12/2016	p32929_1.cpl	NO
0047	wi01078721	ISS1:1OF1	p32553_1	20/12/2016	p32553_1.cpl	NO
0048	CS1000-7208	ISS1:1OF1	p33648_1	20/12/2016	p33648_1.cpl	NO
0049	wi01059388	iss1:1of1	p32628_1	20/12/2016	p32628_1.cpl	NO
0050	wi01065922	ISS1:1OF1	p32516_1	20/12/2016	p32516_1.cpl	NO
0051	wi01205975	ISS1:1OF1	p33447_1	20/12/2016	p33447_1.cpl	NO

0052	wi01142100	ISS1:1OF1	p33090_1	20/12/2016	p33090_1.cpl	NO
0053	wi01153039	ISS1:1OF1	p17588_1	20/12/2016	p17588_1.cpl	NO
0054	WI01077073	ISS1:1OF1	p32534_1	20/12/2016	p32534_1.cpl	NO
0055	wi01215810	ISS1:1OF1	p33494_1	20/12/2016	p33494_1.cpl	NO
0056	wi01066991	ISS1:1OF1	p32449_1	20/12/2016	p32449_1.cpl	NO
0057	wi01106658	ISS1:1OF1	p32812_1	20/12/2016	p32812_1.cpl	NO
0058	wi01068851	ISS1:1OF1	p32439_1	20/12/2016	p32439_1.cpl	NO
0059	wi01053314	ISS1:1OF1	p32555_1	20/12/2016	p32555_1.cpl	NO
0060	wi01123389	ISS1:1OF1	p33045_1	20/12/2016	p33045_1.cpl	NO
0061	CS1000-7174	ISS1:1OF1	p33655_1	20/12/2016	p33655_1.cpl	NO
0062	wi01165881	ISS1:1OF1	p33239_1	20/12/2016	p33239_1.cpl	NO
0063	wi01065125	ISS1:1OF1	p32416_1	20/12/2016	p32416_1.cpl	NO
0064	wi01119086	ISS1:1OF1	p32917_1	20/12/2016	p32917_1.cpl	NO
0065	wi01109251	ISS1:1OF1	p32827_1	20/12/2016	p32827_1.cpl	NO
0066	wi01173768	ISS1:1OF1	p33288_1	20/12/2016	p33288_1.cpl	NO
0067	wi01180594	ISS1:1OF1	p33312_1	20/12/2016	p33312_1.cpl	NO
0068	wi01126552	ISS1:1OF1	p32975_1	20/12/2016	p32975_1.cpl	NO
0069	CS1000-7171	ISS1:1OF1	p33626_1	20/12/2016	p33626_1.cpl	NO
0070	wi01204623	ISS1:1OF1	p33444_1	20/12/2016	p33444_1.cpl	NO
0071	wi01099724	ISS1:1OF1	p32742_1	20/12/2016	p32742_1.cpl	YES
0072	wi01118819	ISS1:1OF1	p32954_1	20/12/2016	p32954_1.cpl	NO
0073	wi01094305	ISS1:1OF1	p32640_1	20/12/2016	p32640_1.cpl	NO
0074	wi01188722	ISS1:1OF1	p33365_1	20/12/2016	p33365_1.cpl	NO
0075	wi01134602	ISS1:1OF1	p32398_1	20/12/2016	p32398_1.cpl	NO
0076	wi01101876	ISS1:1OF1	p32858_1	20/12/2016	p32858_1.cpl	NO
0077	wi01142792	ISS1:1OF1	p33099_1	20/12/2016	p33099_1.cpl	NO
0078	CS1000-7276	ISS1:1OF1	p33675_1	20/12/2016	p33675_1.cpl	YES
0079	CS1000-6789	ISS1:1OF1	p33508_1	20/12/2016	p33508_1.cpl	NO
0080	wi01164281	ISS1:1OF1	p33232_1	20/12/2016	p33232_1.cpl	NO
0081	wi01133985	ISS1:1OF1	p33049_1	20/12/2016	p33049_1.cpl	NO
0082	wi01149017	ISS1:1OF1	p33145_1	20/12/2016	p33145_1.cpl	NO
0083	wi01186846	ISS1:1OF1	p33332_1	20/12/2016	p33332_1.cpl	NO
0084	wi01188972	ISS1:1OF1	p33352_1	20/12/2016	p33352_1.cpl	NO
0085	cs1000-7217	ISS1:1OF1	p33643_1	20/12/2016	p33643_1.cpl	NO
0086	CS1000-7255	ISS1:1OF1	p33663_1	20/12/2016	p33663_1.cpl	YES
0087	wi01111194	ISS1:1OF1	p32821_1	20/12/2016	p32821_1.cpl	NO
0088	wi01189247	ISS1:1OF1	p33382_1	20/12/2016	p33382_1.cpl	YES
0089	wi01099606	iss1:1of1	p32713_1	20/12/2016	p32713_1.cpl	NO
0090	wi01088775	ISS1:1OF1	p32659_1	20/12/2016	p32659_1.cpl	NO
0091	wi01148697	ISS1:1OF1	p33187_1	20/12/2016	p33187_1.cpl	NO
0092	wi01130348	ISS1:1OF1	p33014_1	20/12/2016	p33014_1.cpl	NO
0093	CS1000-6844	ISS1:1OF1	p33507_1	20/12/2016	p33507_1.cpl	NO
0094	wi01134756	ISS1:1OF1	p33453_1	20/12/2016	p33453_1.cpl	NO
0095	wi01184588	ISS1:1OF1	p33338_1	20/12/2016	p33338_1.cpl	NO
0096	wi01147091	ISS1:1OF1	p33137_1	20/12/2016	p33137_1.cpl	NO
0097	CS1000-7286	ISS1:1OF1	p33686_1	20/12/2016	p33686_1.cpl	NO
0098	wi01087543	ISS1:1OF1	p32662_1	20/12/2016	p32662_1.cpl	NO
0099	wi01166011	ISS1:1OF1	p33235_1	20/12/2016	p33235_1.cpl	NO
0100	wi01035976	ISS1:1OF1	p32173_1	20/12/2016	p32173_1.cpl	NO
0101	wi01146804	ISS1:1OF1	p33132_1	20/12/2016	p33132_1.cpl	NO
0102	wi01153104	ISS1:1OF1	p33174_1	20/12/2016	p33174_1.cpl	NO
0103	wi01092443	ISS1:1OF1	p32676_1	20/12/2016	p32676_1.cpl	NO
0104	CS1000-6740	ISS1:1OF1	p33622_1	20/12/2016	p33622_1.cpl	NO
0105	wi01113712	ISS1:1OF1	p32877_1	20/12/2016	p32877_1.cpl	NO
0106	wi01150846	ISS1:1OF1	p33157_1	20/12/2016	p33157_1.cpl	NO
0107	CS1000-7052	ISS1:1OF1	p33573_1	20/12/2016	p33573_1.cpl	NO
0108	wi01153844	ISS1:1OF1	p33172_1	20/12/2016	p33172_1.cpl	NO
0109	wi01093071	ISS1:1OF1	p32701_1	20/12/2016	p32701_1.cpl	NO
0110	CS1000-7151	ISS1:1OF1	p33617_1	20/12/2016	p33617_1.cpl	NO
0111	wi01190506	ISS1:1OF1	p33361_1	20/12/2016	p33361_1.cpl	NO
0112	wi01118714	ISS2:1OF1	p32952_2	20/12/2016	p32952_2.cpl	NO
0113	wi01075538	ISS1:1OF1	p32469_1	20/12/2016	p32469_1.cpl	NO

0114	wi01091447	ISS1:1OF1	p32675_1	20/12/2016	p32675_1.cpl	NO
0115	wi01159931	ISS1:1OF1	p33231_1	20/12/2016	p33231_1.cpl	YES
0116	WI01108562	ISS1:1OF1	p32832_1	20/12/2016	p32832_1.cpl	NO
0117	wi01099810	ISS1:1OF1	p32796_1	20/12/2016	p32796_1.cpl	NO
0118	CS1000-7003	ISS1:1OF1	p33561_1	20/12/2016	p33561_1.cpl	NO
0119	wi01128596	ISS1:1OF1	p33000_1	20/12/2016	p33000_1.cpl	NO
0120	wi01185642	ISS1:1OF1	p33342_1	20/12/2016	p33342_1.cpl	NO
0121	wi01193201	ISS1:1OF1	p33381_1	20/12/2016	p33381_1.cpl	YES
0122	cs1000-6998	ISS1:1OF1	p33555_1	20/12/2016	p33555_1.cpl	NO
0123	CS1000-6791	ISS1:1OF1	p33501_1	20/12/2016	p33501_1.cpl	YES
0124	wi01191767	ISS1:1OF1	p33368_1	20/12/2016	p33368_1.cpl	NO
0125	wi01144354	ISS1:1OF1	p33117_1	20/12/2016	p33117_1.cpl	NO
0126	wi01121374	ISS1:1OF1	p31107_1	20/12/2016	p31107_1.cpl	NO
0127	wi01185751	ISS1:1OF1	p33409_1	20/12/2016	p33409_1.cpl	YES
0128	WI01169289	ISS1:1OF1	p33257_1	20/12/2016	p33257_1.cpl	NO
0129	wi01100508	ISS1:1OF1	p32761_1	20/12/2016	p32761_1.cpl	NO
0130	wi01189516	ISS1:1OF1	p33373_1	20/12/2016	p33373_1.cpl	NO
0131	wi01101969	ISS1:1OF1	p32726_1	20/12/2016	p32726_1.cpl	NO
0132	wi01102296	ISS1:1OF1	p32780_1	20/12/2016	p32780_1.cpl	NO
0133	cs1000-7162	ISS1:1OF1	p33625_1	20/12/2016	p33625_1.cpl	NO
0134	wi01097598	ISS1:1OF1	p32797_1	20/12/2016	p32797_1.cpl	NO
0135	wi01132215	ISS1:1OF1	p33084_1	20/12/2016	p33084_1.cpl	NO
0136	wi01094832	iss1:1of1	p32718_1	20/12/2016	p32718_1.cpl	NO
0137	wi01197246	ISS1:1OF1	p33400_1	20/12/2016	p33400_1.cpl	NO
0138	CS1000-6872	ISS1:1OF1	p33520_1	20/12/2016	p33520_1.cpl	NO
0139	wi01147983	ISS1:1OF1	p33141_1	20/12/2016	p33141_1.cpl	NO
0140	wi01060826	ISS1:1OF1	p32379_1	20/12/2016	p32379_1.cpl	NO
0141	wi01077639	ISS1:1OF1	p32883_1	20/12/2016	p32883_1.cpl	NO
0142	wi01085855	ISS1:1OF1	p32658_1	20/12/2016	p32658_1.cpl	NO
0143	wi01053195	ISS1:1OF1	p32297_1	20/12/2016	p32297_1.cpl	NO
0144	wi01174116	ISS1:1OF1	p33287_1	20/12/2016	p33287_1.cpl	NO
0145	wi01095255	ISS1:1OF1	p33027_1	20/12/2016	p33027_1.cpl	NO
0146	wi01203516	ISS1:1OF1	p33438_1	20/12/2016	p33438_1.cpl	NO
0147	wi01094727	ISS1:1OF1	p32848_1	20/12/2016	p32848_1.cpl	NO
0148	wi01151898	ISS1:1OF1	p33175_1	20/12/2016	p33175_1.cpl	NO
0149	CS1000-7103	ISS1:1OF1	p33596_1	20/12/2016	p33596_1.cpl	NO
0150	wi01080753	ISS1:1OF1	p32518_1	20/12/2016	p32518_1.cpl	NO
0151	wi01125238	ISS1:1OF1	p32971_1	20/12/2016	p32971_1.cpl	NO
0152	wi01110593	ISS1:1OF1	p32849_1	20/12/2016	p32849_1.cpl	NO
0153	wi01119100	ISS1:1OF1	p32925_1	20/12/2016	p32925_1.cpl	NO
0154	CS1000-6978	ISS1:1OF1	p33551_1	20/12/2016	p33551_1.cpl	YES
0155	wi01156999	ISS1:1OF1	p33180_1	20/12/2016	p33180_1.cpl	NO
0156	wi01141625	ISS1:1OF1	p33324_1	20/12/2016	p33324_1.cpl	NO
0157	wi01102093	ISS1:1OF1	p32760_1	20/12/2016	p32760_1.cpl	NO
0158	wi01132883	ISS1:1OF1	p33030_1	20/12/2016	p33030_1.cpl	NO
0159	wi01070279	ISS1:1OF1	p32262_1	20/12/2016	p32262_1.cpl	NO
0160	wi01102475	ISS1:1OF1	p32782_1	20/12/2016	p32782_1.cpl	YES
0161	cs1000-6924	ISS1:1OF1	p33523_1	20/12/2016	p33523_1.cpl	NO
0162	wi01181423	ISS1:1OF1	p33318_1	20/12/2016	p33318_1.cpl	NO
0163	wi01150083	ISS1:1OF1	p33152_1	20/12/2016	p33152_1.cpl	NO
0164	wi01181854	ISS1:1OF1	p33323_1	20/12/2016	p33323_1.cpl	NO
0165	wi00897254	ISS1:1OF1	p31127_1	20/12/2016	p31127_1.cpl	NO
0166	wi01083036	ISS1:1OF1	p32571_1	20/12/2016	p32571_1.cpl	NO
0167	wi01070468	iss1:1of1	p32418_1	20/12/2016	p32418_1.cpl	NO
0168	wi01181197	ISS1:1OF1	p33317_1	20/12/2016	p33317_1.cpl	NO
0169	wi01063864	ISS1:1OF1	p32410_1	20/12/2016	p32410_1.cpl	YES
0170	wi01075355	ISS1:1OF1	p32594_1	20/12/2016	p32594_1.cpl	NO
0171	wi01127447	ISS1:1OF1	p32990_1	20/12/2016	p32990_1.cpl	NO
0172	wi01133106	ISS1:1OF1	p33032_1	20/12/2016	p33032_1.cpl	NO
0173	wi01212017	ISS1:1OF1	p33482_1	20/12/2016	p33482_1.cpl	YES
0174	wi01099292	ISS1:1OF1	p32886_1	20/12/2016	p32886_1.cpl	NO
0175	wi01167427	ISS1:1OF1	p33264_1	20/12/2016	p33264_1.cpl	NO

0176	wi01075540	ISS1:1OF1	p32492_1	20/12/2016	p32492_1.cpl	NO
0177	wi01072027	ISS1:1OF1	p32689_1	20/12/2016	p32689_1.cpl	NO
0178	wi01114038	ISS1:1OF1	p32869_1	20/12/2016	p32869_1.cpl	NO
0179	CS1000-6933	ISS1:1OF1	p33529_1	20/12/2016	p33529_1.cpl	NO
0180	wi01212527	ISS1:1OF1	p33481_1	20/12/2016	p33481_1.cpl	YES
0181	wi01181578	ISS1:1OF1	p33321_1	20/12/2016	p33321_1.cpl	NO
0182	CS1000-7106	ISS1:1OF1	p33598_1	20/12/2016	p33598_1.cpl	NO
0183	wi01063263	ISS1:1OF1	p32573_1	20/12/2016	p32573_1.cpl	NO
0184	wi01102091	ISS1:1OF1	p32744_1	20/12/2016	p32744_1.cpl	YES
0185	wi01104473	ISS1:1OF1	p32818_1	20/12/2016	p32818_1.cpl	NO
0186	wi01053950	ISS1:1OF1	p32654_1	20/12/2016	p32654_1.cpl	YES
0187	wi01139981	ISS1:1OF1	p33083_1	20/12/2016	p33083_1.cpl	NO
0188	wi01058378	ISS1:1OF1	p32344_1	20/12/2016	p32344_1.cpl	NO
0189	wi01070580	ISS1:1OF1	p32380_1	20/12/2016	p32380_1.cpl	NO
0190	wi01187059	ISS1:1OF1	p33346_1	20/12/2016	p33346_1.cpl	NO
0191	wi01043367	ISS1:1OF1	p32232_1	20/12/2016	p32232_1.cpl	NO
0192	wi01145002	ISS1:1OF1	p33186_1	20/12/2016	p33186_1.cpl	NO
0193	wi01175294	ISS1:1OF1	p33290_1	20/12/2016	p33290_1.cpl	NO
0194	wi01041453	ISS1:1OF1	p32587_1	20/12/2016	p32587_1.cpl	NO
0195	wi01185441	ISS1:1OF1	p33341_1	20/12/2016	p33341_1.cpl	NO
0196	wi01130815	ISS1:1OF1	p33017_1	20/12/2016	p33017_1.cpl	NO
0197	wi01214452	ISS1:1OF1	p33488_1	20/12/2016	p33488_1.cpl	NO
0198	wi01089807	ISS1:1OF1	p32957_1	20/12/2016	p32957_1.cpl	NO
0199	CS1000-7023	ISS1:1OF1	p33526_1	20/12/2016	p33526_1.cpl	NO
0200	wi01149384	ISS1:1OF1	p33147_1	20/12/2016	p33147_1.cpl	NO
0201	WI01121737	ISS1:1OF1	p32939_1	20/12/2016	p32939_1.cpl	NO
0202	CS1000-6794	ISS1:1OF1	p33539_1	20/12/2016	p33539_1.cpl	NO
0203	wi01208580	ISS1:1OF1	p33461_1	20/12/2016	p33461_1.cpl	NO
0204	wi01083896	ISS1:1OF1	p32937_1	20/12/2016	p32937_1.cpl	NO
0205	wi01210497	ISS1:1OF1	p33468_1	20/12/2016	p33468_1.cpl	YES
0206	wi01178476	ISS1:1OF1	p33305_1	20/12/2016	p33305_1.cpl	NO
0207	wi01039280	ISS1:1OF1	p32423_1	20/12/2016	p32423_1.cpl	NO
0208	wi01081510	ISS1:1OF1	p32582_1	20/12/2016	p32582_1.cpl	NO
0209	wi01088797	ISS1:1OF1	p32844_1	20/12/2016	p32844_1.cpl	NO
0210	wi01098905	ISS1:1OF1	p32556_1	20/12/2016	p32556_1.cpl	NO
0211	wi01146766	ISS1:1OF1	p33131_1	20/12/2016	p33131_1.cpl	NO
0212	wi00937672	ISS1:1OF1	p31276_1	20/12/2016	p31276_1.cpl	NO
0213	wi01170583	ISS1:1OF1	p33261_1	20/12/2016	p33261_1.cpl	NO
0214	wi01057403	ISS1:1OF1	p32591_1	20/12/2016	p32591_1.cpl	NO
0215	wi01132204	ISS1:1OF1	p32501_1	20/12/2016	p32501_1.cpl	NO
0216	wi01112655	ISS1:1OF1	p32870_1	20/12/2016	p32870_1.cpl	NO
0217	CS1000-7137	ISS1:1OF1	p33629_1	20/12/2016	p33629_1.cpl	NO
0218	wi01201045	ISS1:1OF1	p33424_1	20/12/2016	p33424_1.cpl	YES
0219	CS1000-7248	ISS1:1OF1	p32811_1	20/12/2016	p32811_1.cpl	NO
0220	wi01185138	ISS1:1OF1	p33411_1	20/12/2016	p33411_1.cpl	NO
0221	wi01025156	ISS1:1OF1	p32136_1	20/12/2016	p32136_1.cpl	NO
0222	wi01127138	ISS1:1OF1	p33304_1	20/12/2016	p33304_1.cpl	NO
0223	wi01070756	ISS1:1OF1	p32444_1	20/12/2016	p32444_1.cpl	NO
0224	wi01132599	ISS1:1OF1	p33025_1	20/12/2016	p33025_1.cpl	NO
0225	wi01056633	ISS1:1OF1	p32322_1	20/12/2016	p32322_1.cpl	NO
0226	wi01060241	ISS1:1OF1	p32381_1	20/12/2016	p32381_1.cpl	NO
0227	wi01134952	ISS1:1OF1	p33039_1	20/12/2016	p33039_1.cpl	NO
0228	wi01132902	ISS1:1OF1	p33028_1	20/12/2016	p33028_1.cpl	NO
0229	wi01201986	ISS1:1OF1	p33433_1	20/12/2016	p33433_1.cpl	NO
0230	wi01071379	ISS1:1OF1	p32522_1	20/12/2016	p32522_1.cpl	NO
0231	cs1000-6845	ISS1:1OF1	p33509_1	20/12/2016	p33509_1.cpl	NO
0232	wi01069441	ISS1:1OF1	p32097_1	20/12/2016	p32097_1.cpl	NO
0233	WI11032038	ISS1:1OF1	p33022_1	20/12/2016	p33022_1.cpl	NO
0234	CS1000-7152	ISS1:1OF1	p33668_1	20/12/2016	p33668_1.cpl	YES
0235	wi01134354	ISS1:1OF1	p33031_1	20/12/2016	p33031_1.cpl	NO
0236	CS1000-6946	ISS1:1OF1	p33543_1	20/12/2016	p33543_1.cpl	NO
0237	wi01096910	ISS1:1OF1	p32734_1	20/12/2016	p32734_1.cpl	NO

0238	wi01076948	ISS1:1OF1	p32526_1	20/12/2016	p32526_1.cpl	YES
0239	wi01093118	ISS1:1OF1	p32496_1	20/12/2016	p32496_1.cpl	NO
0240	wi01202917	ISS1:1OF1	p33434_1	20/12/2016	p33434_1.cpl	NO
0241	wi01198794	ISS1:1OF1	p33408_1	20/12/2016	p33408_1.cpl	NO
0242	wi01160967	ISS1:1OF1	p33213_1	20/12/2016	p33213_1.cpl	NO
0243	wi01104867	ISS1:1OF1	p32828_1	20/12/2016	p32828_1.cpl	NO
0244	wi01154485	ISS1:1OF1	p33194_1	20/12/2016	p33194_1.cpl	NO
0245	wi01146705	ISS1:1OF1	p33129_1	20/12/2016	p33129_1.cpl	NO
0246	wi01096712	ISS1:1OF1	p32708_1	20/12/2016	p32708_1.cpl	NO
0247	wi01061481	ISS1:1OF1	p32382_1	20/12/2016	p32382_1.cpl	NO
0248	wi01070465	iss1:1of1	p32562_1	20/12/2016	p32562_1.cpl	NO
0249	CS1000-7301	ISS1:1OF1	p33691_1	20/12/2016	p33691_1.cpl	NO
0250	wi01187443	ISS1:1OF1	p33359_1	20/12/2016	p33359_1.cpl	NO
0251	wi01034307	ISS1:1OF1	p32615_1	20/12/2016	p32615_1.cpl	NO
0252	CS1000-6964	ISS1:1OF1	p33541_1	20/12/2016	p33541_1.cpl	NO
0253	wi01135146	ISS1:1OF1	p33033_1	20/12/2016	p33033_1.cpl	NO
0254	CS1000-6852	ISS1:1OF1	p33517_1	20/12/2016	p33517_1.cpl	NO
0255	wi01195975	ISS1:1OF1	p33394_1	20/12/2016	p33394_1.cpl	NO
0256	wi01108262	ISS1:1OF1	p32865_1	20/12/2016	p32865_1.cpl	YES
0257	wi01104627	ISS1:1OF1	p32819_1	20/12/2016	p32819_1.cpl	NO
0258	wi01204274	ISS1:1OF1	p33451_1	20/12/2016	p33451_1.cpl	NO
0259	CS1000-7022	ISS1:1OF1	p33560_1	20/12/2016	p33560_1.cpl	NO
0260	CS1000-6583	ISS1:1OF1	p33531_1	20/12/2016	p33531_1.cpl	NO
0261	wi01096967	ISS1:1OF1	p32735_1	20/12/2016	p32735_1.cpl	NO
0262	wi01177690	ISS1:1OF1	p33320_1	20/12/2016	p33320_1.cpl	YES
0263	wi01060611	ISS1:1OF1	p32809_1	20/12/2016	p32809_1.cpl	NO
0264	wi01163826	ISS1:1OF1	p33229_1	20/12/2016	p33229_1.cpl	NO
0265	wi01182523	ISS1:1OF1	p33327_1	20/12/2016	p33327_1.cpl	NO
0266	CS1000-7267	ISS1:1OF1	p33669_1	20/12/2016	p33669_1.cpl	NO
0267	wi01090535	ISS1:1OF1	p32519_1	20/12/2016	p32519_1.cpl	NO
0268	wi01124074	ISS1:1OF1	p32989_1	20/12/2016	p32989_1.cpl	NO
0269	wi01034961	ISS1:1OF1	p32144_1	20/12/2016	p32144_1.cpl	NO
0270	wi01127874	ISS1:1OF1	p25747_1	20/12/2016	p25747_1.cpl	NO
0271	wi01062607	ISS1:1OF1	p32503_1	20/12/2016	p32503_1.cpl	NO
0272	CS1000-6910	ISS1:1OF1	p33528_1	20/12/2016	p33528_1.cpl	NO
0273	wi01060382	iss1:1of1	p32623_1	20/12/2016	p32623_1.cpl	YES
0274	wi01215563	ISS1:1OF1	p33412_1	20/12/2016	p33412_1.cpl	NO
0275	CS1000-7147	ISS1:1OF1	p33616_1	20/12/2016	p33616_1.cpl	NO
0276	wi01075359	ISS1:1OF1	p32671_1	20/12/2016	p32671_1.cpl	NO
0277	wi01120406	ISS1:1OF1	p32956_1	20/12/2016	p32956_1.cpl	NO
0278	wi01095462	ISS1:1OF1	p32723_1	20/12/2016	p32723_1.cpl	NO
0279	wi01213334	ISS1:1OF1	p33485_1	20/12/2016	p33485_1.cpl	NO
0280	wi01070473	ISS1:1OF1	p32413_1	20/12/2016	p32413_1.cpl	NO
0281	wi01114695	ISS1:1OF1	p32885_1	20/12/2016	p32885_1.cpl	NO
0282	wi01129098	ISS1:1OF1	p32951_1	20/12/2016	p32951_1.cpl	NO
0283	wi01134799	ISS1:1OF1	p33069_1	20/12/2016	p33069_1.cpl	NO
0284	wi01163048	ISS1:1OF1	p33223_1	20/12/2016	p33223_1.cpl	YES
0285	wi01096718	ISS1:1OF1	p33138_1	20/12/2016	p33138_1.cpl	YES
0286	CS1000-7293	ISS1:1OF1	p33679_1	20/12/2016	p33679_1.cpl	NO
0287	wi01166065	ISS1:1OF1	p33241_1	20/12/2016	p33241_1.cpl	NO
0288	wi01130836	ISS1:1OF1	p33008_1	20/12/2016	p33008_1.cpl	YES
0289	wi01109345	ISS1:1OF1	p32830_1	20/12/2016	p32830_1.cpl	NO
0290	wi01104410	ISS1:1OF1	p32801_1	20/12/2016	p32801_1.cpl	NO
0291	wi01183783	ISS1:1OF1	p33333_1	20/12/2016	p33333_1.cpl	NO
0292	wi01064599	iss1:1of1	p32580_1	20/12/2016	p32580_1.cpl	NO
0293	wi01124477	ISS1:1OF1	p32963_1	20/12/2016	p32963_1.cpl	NO
0294	wi01072062	ISS1:1OF1	p32776_1	20/12/2016	p32776_1.cpl	NO
0295	wi01118320	ISS1:1OF1	p32753_1	20/12/2016	p32753_1.cpl	NO
0296	wi01126454	ISS1:1OF1	p32973_1	20/12/2016	p32973_1.cpl	NO
0297	wi01154253	ISS1:1OF1	p33206_1	20/12/2016	p33206_1.cpl	NO
0298	CS1000-7086	ISS1:1OF1	p33587_1	20/12/2016	p33587_1.cpl	NO
0299	wi01021522	ISS1:1OF1	p32863_1	20/12/2016	p32863_1.cpl	NO

0300	CS1000-6786	ISS1:1OF1	p33497_1	20/12/2016	p33497_1.cpl	NO
0301	wi01108828	ISS1:1OF1	p32831_1	20/12/2016	p32831_1.cpl	NO
0302	wi01150771	ISS1:1OF1	p33210_1	20/12/2016	p33210_1.cpl	NO
0303	wi01022598	ISS1:1OF1	p32066_1	20/12/2016	p32066_1.cpl	NO
0304	wi01146289	ISS1:1OF1	p33146_1	20/12/2016	p33146_1.cpl	NO
0305	wi01184272	ISS1:1OF1	p33336_1	20/12/2016	p33336_1.cpl	NO
0306	CS1000-6752	ISS1:1OF1	p33540_1	20/12/2016	p33540_1.cpl	NO
0307	wi01082456	ISS1:1OF1	p32596_1	20/12/2016	p32596_1.cpl	NO
0308	wi01177614	ISS1:1OF1	p33303_1	20/12/2016	p33303_1.cpl	NO
0309	wi01163521	ISS1:1OF1	p33226_1	20/12/2016	p33226_1.cpl	NO
0310	wi01071296	ISS1:1OF1	p32836_1	20/12/2016	p32836_1.cpl	NO
0311	wi01118928	ISS1:1OF1	p32922_1	20/12/2016	p32922_1.cpl	NO
0312	wi01068669	ISS1:1OF1	p32333_1	20/12/2016	p32333_1.cpl	NO
0313	wi01137003	ISS1:1OF1	p33053_1	20/12/2016	p33053_1.cpl	NO
0314	wi01165870	ISS1:1OF1	p33238_1	20/12/2016	p33238_1.cpl	NO
0315	wi01136194	ISS1:1OF1	p33051_1	20/12/2016	p33051_1.cpl	NO
0316	wi01068751	ISS1:1OF1	p32445_1	20/12/2016	p32445_1.cpl	NO
0317	wi01075353	ISS1:1OF1	p32613_1	20/12/2016	p32613_1.cpl	NO
0318	wi01208515	ISS1:1OF1	p33455_1	20/12/2016	p33455_1.cpl	NO
0319	wi01165461	ISS1:1OF1	p33237_1	20/12/2016	p33237_1.cpl	NO
0320	wi01132222	ISS1:1OF1	p33023_1	20/12/2016	p33023_1.cpl	NO
0321	WI0110261	ISS1:1OF1	p32758_1	20/12/2016	p32758_1.cpl	NO
0322	CS1000-7202	ISS1:1OF1	p33646_1	20/12/2016	p33646_1.cpl	NO
0323	CS1000-7326	ISS1:1OF1	p33699_1	20/12/2016	p33699_1.cpl	NO
0324	CS1000-7357	ISS1:1OF1	p33698_1	20/12/2016	p33698_1.cpl	NO
0325	CS1000-7265	ISS1:1OF1	p33666_1	20/12/2016	p33666_1.cpl	NO
0326	CS1000-7140	ISS1:1OF1	p33624_1	20/12/2016	p33624_1.cpl	NO
0327	CS1000-7062	ISS1:1OF1	p33579_1	20/12/2016	p33579_1.cpl	NO
0328	CS1000-7359	ISS1:1OF1	p33700_1	20/12/2016	p33700_1.cpl	NO
0329	CS1000-6980	ISS1:1OF1	p33586_1	20/12/2016	p33586_1.cpl	NO
0330	CS1000-7036	ISS1:1OF1	p33566_1	20/12/2016	p33566_1.cpl	NO
0331	CS1000-7101	ISS1:1OF1	p33641_1	20/12/2016	p33641_1.cpl	NO
0332	CS1000-6546	ISS1:1OF1	p33597_1	20/12/2016	p33597_1.cpl	NO
0333	CS1000-7231	ISS1:1OF1	p33652_1	20/12/2016	p33652_1.cpl	NO
0334	CS1000-7296	ISS1:1OF1	p33681_1	20/12/2016	p33681_1.cpl	NO
0335	CS1000-7323	ISS1:1OF1	p33688_1	20/12/2016	p33688_1.cpl	NO
0336	CS1000-7262	ISS1:1OF1	p33665_1	20/12/2016	p33665_1.cpl	NO
0337	CS1000-7061	ISS1:1OF1	p33575_1	20/12/2016	p33575_1.cpl	NO
0338	CS1000-7154	ISS1:1OF1	p33619_1	20/12/2016	p33619_1.cpl	NO
0339	CS1000-7081	ISS1:1OF1	p33585_1	20/12/2016	p33585_1.cpl	NO
0340	cs1000-7128	ISS1:1OF1	p33605_1	20/12/2016	p33605_1.cpl	NO
0341	CS1000-7053	ISS1:1OF1	p33574_1	20/12/2016	p33574_1.cpl	NO
0342	CS1000-7461	ISS1:1OF1	p33736_1	20/12/2016	p33736_1.cpl	NO
0343	CS1000-7015	ISS1:1OF1	p33606_1	20/12/2016	p33606_1.cpl	NO
0344	cs1000-7223	ISS1:1OF1	p33647_1	20/12/2016	p33647_1.cpl	YES
0345	CS1000-7143	ISS1:1OF1	p33614_1	20/12/2016	p33614_1.cpl	NO
0346	cs1000-7160	ISS1:1OF1	p33621_1	20/12/2016	p33621_1.cpl	NO
0347	CS1000-7253	ISS1:1OF1	p33662_1	20/12/2016	p33662_1.cpl	NO
0348	CS1000-7337	ISS1:1OF1	p33696_1	20/12/2016	p33696_1.cpl	NO
0349	CS1000-7462	ISS1:1OF1	p33737_1	20/12/2016	p33737_1.cpl	NO
0350	cs1000-7029	ISS1:1OF1	p33563_1	20/12/2016	p33563_1.cpl	NO
0351	CS1000-7366	ISS1:1OF1	p33702_1	20/12/2016	p33702_1.cpl	NO
0352	cs1000-7269	ISS1:1OF1	p33670_1	20/12/2016	p33670_1.cpl	NO
0353	CS1000-7313	ISS1:1OF1	p33692_1	20/12/2016	p33692_1.cpl	NO

MDP>LAST SUCCESSFUL MDP REFRESH :2016-12-20 10:09:17 (Local Time)  
MDP>USING DEPLIST ZIP FILE DOWNLOADED :2016-12-20 03:51:22 (est)

## Appendix B

### SIP Route on Avaya Communication Server 1000 R7.6

```
TYPE: rdb

CUST 0

ROUT 20

TYPE RDB
CUST 00
ROUT 20
DES SIPTRK
TKTP TIE
M911P NO
ESN NO
RPA NO
CNVT NO
SAT NO
RCLS EXT
VTRK YES
ZONE 00001
PCID SIP
CRID YES
NODE 3
DTRK NO
ISDN YES
    MODE ISLD
    DCH 66
    IFC SL1
    PNI 00001
    NCNA YES
    NCRD YES
    TRO YES
    FALT NO
    CTYP UKWN
    INAC YES
    ISAR NO
    DAPC NO
MBXR NO
MBXOT NPA
MBXT 0
PTYP ATT
CNDP UKWN
AUTO NO
DNIS NO
DCDR YES
ICOG IAO
SRCH LIN
TRMB YES
STEP
ACOD 8020
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
```

PAGE 002

```
OGF 1920
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
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```
IENB 5
TFD 0
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 YES
INC YES
LAST YES
TTA YES
ABAN YES
CDRB YES
QREC YES
OAL YES
AIA YES
OAN YES
OPD YES
```

```
NDP  EXC 0
NATL YES
SSL
CFWR NO
IDOP NO
VRAT NO
MUS  YES
MRT  10
PANS YES
RACD NO
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
```

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```
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
DCTI 0
TIDY 20 20
ATTR NO
TRRL NO
SGRP 0
CCBA NO
ARDN NO
CTBL 0
AACR NO
```

## SIP D-channel Avaya Communication Server 1000 R7.6

```
ADAN      DCH 66
CTYP DCIP
DES VTRK_DCH
USR ISLD
ISLM 4000
SSRC 1800
OTBF 32
NASA YES
IFC SL1
CNEG 1
RLS ID 7
RCAP ND2 MWI
MBGA NO
H323
OVLR YES
OVLS YES
OVLT 1
```

## SIP Trunk on Avaya Communication Server 1000 R7.6

```
TYPE TNB
TN 96 0 3 29

DATE

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DES

DES SIPTRK
TN 096 0 03 29 VIRTUAL
TYPE IPTI
CDEN 8D
CUST 0
XTRK VTRK
ZONE 00001
TIMP 600
BIMP 600
AUTO_BIMP NO
NMUS NO
TRK ANLG
NCOS 0
RTMB 20 30
CHID 60
TGAR 0
STRI/STRO IMM IMM
SUPN YES
AST NO
IAPG 0
CLS UNR DTN CND ECD WTA LPR APN THFD XREP SPCD MSBT
      P10 NTC MID
TKID
AACR NO
```

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