



Avaya Solution & Interoperability Test Lab

Application Notes for configuring Intuition Acclaim V5.4 from Enghouse Interactive to interoperate with Avaya Communication Server 1000 R7.6 using Avaya Aura® Session Manager R7.1 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Intuition Acclaim to interoperate with Avaya Communication Server 1000 using Avaya Aura® Session Manager.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the 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 required for Intuition Acclaim V5.4 from Enghouse Interactive to interoperate with Avaya Communication Server 1000 R7.6 using Avaya Aura® Session Manager R7.1 as a proxy server between the Avaya Communication Server 1000 IP Media Services and the Avaya Media Server R7.6.

Intuition Acclaim is a suite of applications built around an operator console called Switchboard that runs on a desktop PC, providing operators with extended call-handling functionality. In addition, it offers directory, search, absence, person-specific announcements and other benefits. Switchboard and its underlying components are the only part of the Intuition Acclaim suite that has direct integration with the Avaya Communication Server 1000.

The Intuition Acclaim Switchboard application uses the Avaya IP Attendant Software Development Kit (SDK) in order to connect to and communicate with the Avaya IP Attendant Gateway and Avaya Media Server. This SDK is responsible for the signalling and voice media path and the Intuition Acclaim console controls the interactions.

The IP Attendant 3260 is an IP-enabled Attendant Console that replaces the need for a Personal Computer Console Interface Unit (PCCIU) or an Avaya M2250 Attendant Console for supported third party Attendant Console clients such as Intuition Acclaim. The IP Attendant Console is included with the IP Media Services applications that are installed as part of the Signalling Server software.

IP Media Services is installed with the Signaling Server application and enabled using Element Manager. To configure the individual IP Media Services applications, package 422 must be unrestricted and configuration options must adhere to licensing limitations.

The IP Attendant Gateway is an application running on IP Media Services and uses Session Initialization Protocol (SIP) to manage signalling between the IP Attendant Console and Avaya Media Server. Communication between the IP Attendant Gateway the CS1000 Call Server is managed using Time Compression Multiplexing (TCM) messaging, over TCP. A Media Service Routing Number (MSRN) was configured in the Customer Data Block where the IP Attendant was defined. A dial plan for the MSRN was configured on Session Manager to point to the Avaya Media Server.

Note: These Application Notes focuses on the involvement of Avaya Aura® Session Manager as a proxy server between the CS1000 IP Media Services and the Avaya Media Server. Another option will have the IP Media Services connecting directly with the Avaya Media Server and the Application Notes titled *Application Notes for configuring Intuition Acclaim from Enghouse to interoperate with Avaya Communication Server 1000 R7.6* illustrates the setup required for this option.

2. General Test Approach and Test Results

The general test approach was to configure the Intuition Acclaim to communicate with the CS1000 as implemented on a customer's premises. For this compliance testing the Avaya solution was setup to use Session Manager as a proxy server between the CS1000 IP Media Services and the Avaya Media Server. Testing focused on verifying that Intuition Acclaim registered with the IP Attendant and all features of the Switchboard behaved as expected. Various call scenarios were performed to simulate real call types as would be observed on a customer premises. See **Figure 1** for a network diagram. The interoperability compliance test included both feature functionality and serviceability tests.

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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and Intuition Acclaim did not include use of any specific encryption features as requested by Enghouse.

2.1. Interoperability Compliance Testing

The testing included:

- Verification of connectivity between: the CS1000 and the Intuition Acclaim PC
- Switchboard answers direct calls
- Supervised and unsupervised transfer with answer
- Directing calls to busy extensions
- Call queuing and retrieval
- Detection for busy and unanswered extensions
- Person-specific announcements
- End to End signalling
- Camp-on to busy extensions
- Call Requeuing

- Conference calls
- Serviceability testing, which included a simulated LAN failure from the Intuition Acclaim PC

2.2. Test Results

Tests were performed to insure full interoperability of the Intuition Acclaim with the CS1000 using the Session Manager as a proxy server between the CS1000 IP Attendant on IP Media Services and Avaya Media Server. The tests were all functional in nature and performance testing was not included. All test cases that were executed passed successfully. The following observations were noted.

- The Switchboard makes a transfer by dialling party B while the operator is still present on a call with party A, when party B answers the call the three parties are in conference. When the operator hangs up the call the two remaining parties are still in the conference and that is how the transfer was made.
- Upon completion of a Blind or Supervised transfer (as described above) the CLID displayed on the Avaya 1100 Series SIP phones was not updated, but the Digital and UNISTim phones were, this is as per design as the SIP phone did not receive any message to update the display, this is due to the phone being in conference and not being transferred in the typical fashion.
- Upon completion of a Blind or Supervised transfer (as described above) the CLID displayed on the PSTN phone (Simulated PSTN using SIP trunk from the CS1000 to Communication Manager) was not updated, but the Digital and UNISTim phones were, this is as per design as the PSTN phone did not receive any message to update the display, this is due to the phone being in conference and not being transferred in the typical fashion.
- DTMF tones are heard on SIP and Digital phones; however DTMF was not heard on calls to UNISTim phones. DTMF tones are not audible on the UNISTim IP set as the DTMF tones are out of band.

2.3. Support

EMEA technical support from Enghouse Interactive can be obtained through the following:

Phone: +44 870 220 2205, opt1, opt2

E-mail: support@datapulse.com

3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. The Avaya solution consists of a CS1000, a System Manager, a Session Manager and an Avaya Media Server. The Intuition Acclaim registers to the CS1000 as an IP Attendant 3260, for which an IP Attendant 3260 is configured on the CS1000.

The IP Media Services Controller on the CS1000 uses Session Manager as a proxy server. Session Manager is added as a trusted node on the Avaya Media Server as well as a routing entry. Avaya Media Server is added as a SIP Entity on the Session Manager. A dial plan for the Media Services Routing Number (MSRN) is configured on Session Manager to point to the Avaya Media Server.

SIP, Digital and UNISTim phones are configured on the CS1000 to generate intra-switch calls and outbound calls to a simulated PSTN caller over a SIP trunk.

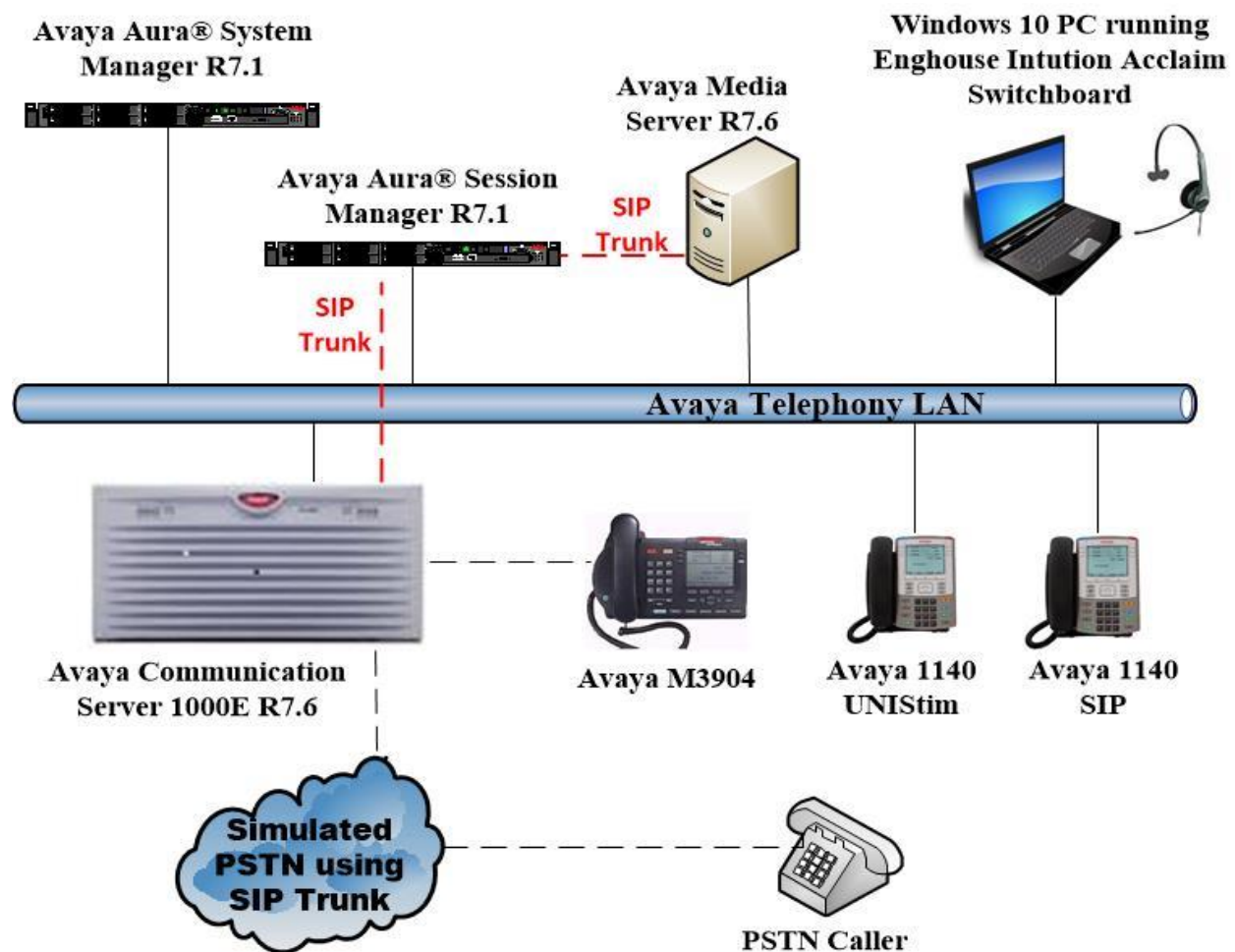


Figure 1: Avaya Communication Server 1000 R7.6 and Enghouse Interactive Intuition Acclaim Switchboard V5.4 using Avaya Aura® Session Manager

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 Common Processor Pentium Mobile CPPM (Pentium M Processor Card)	R7.65.16.00 (See Appendix A for patch details)
Avaya Media Server running on a COTS server (IBM x3350)	R7.65.16.00 (See Appendix B for patch details)
Avaya Aura® System Manager running on a virtual server	System Manager 7.1.1.0 Build No. - 7.1.0.0.1125193 Software Update Revision No: 7.1.1.0.046931 Feature Pack 1 Service Pack 1
Avaya Aura® Session Manager running on a virtual server	Session Manager R7.1 SP1 Build No. – 7.1.1.0.711008
Avaya 1140 UNISlim Deskphone	UNISlim V0625C8Q
Avaya 1140 SIP Deskphone	SIP 04.04.28.00
Avaya 3904 Digital set	Core Firmware 024 Flash Firmware 094
Enghouse Interactive Intuition Acclaim running on a Windows 10 Enterprise PC - Application Switchboard - Product Intuition Acclaim	V5.4.0.570 V5.4.0.42

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 C** for a printout of the SIP route, d-channel, and trunk information. For further information on the configuration of CS1000 please see **Section 12** 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 SIP Trunk connection, the configuration of which is outside the scope of these Application Notes.

Note: Ensure the CS1000 has sufficient licenses for **IP MEDIA SESSIONS** and **IP ATTENDANT CONSOLES** this can be found by typing SLT into overlay 22.

Note: Not all prompts require a response and what is shown throughout this section are the responses that were given in the setup for this particular configuration. Please be aware that other sites may require different responses as each site is setup in its own unique fashion. Pressing the ‘Return’ key will add the default response in most cases.

5.1. Configure IP Attendant

Intuition Acclaim connects to and uses an IP Attendant Console type 3260. The configuration of the 3260 attendant console is carried out in overlay 12. At the prompt type **LD 12**.

Note: The **TN** (Primary TN) and **SETN** (Secondary TN) are required when configuring Intuition Acclaim in **Section 9.1**.

Prompt	Response	Description
>	LD 12	Enter Overlay 12
REQ	New	New Data
TYPE	9260	Attendant type
TN	100 0 00 13	Terminal number
CTYP	XDLC	Card type
SETN	100 0 00 14	Secondary Terminal number
CUST	0	Customer number
ANUM	01	Attendant number
IADN	3900	Attendant Destination number
SSU		
ICDR	ICDD	Internal Call Detail Recording (Denied) Allowed
ABAN	ABDD	Abandoned call record and time to answer Denied
CPND	CNDA	Call Party Name Display Allowed
PRES		
AADN		
DNDI	DNDA	Dialed Name Display (Denied) Allowed
ZONE	0010	Bandwidth Zone for the IP set
IPCR	NO	
DAPC	DAPA	Display Access Prefix Allowed
LANG	00	
KEY 00	BVR	Allow Busy Verify on key 0

Prompt	Response	Description
KEY 01	BIN	Allow Barge-In on key 01
KEY 02	BKI	Break-In key
KEY 03	AWU	Automatic Wake Up key (cannot be key 0 or 1)
KEY 04	PRK	Call Park key
KEY 05	DPD	Display Destination key
KEY 06	DPS	Display Source key
KEY 07	DCW	Display Call Waiting key
KEY 10	MIK	Message Indication key
KEY 11	MCK	Message Cancellation key
KEY 12	SACP	Semi-Automatic Camp-On key
KEY 13	SECL	Series Call key
KEY 14	SCC 0001	Speed Call Controller key
KEY 15	EES	End to End Signalling key
KEY 16	DDL	Do Not Disturb Individual key
KEY 17	COS	Controlled Class of Service key
Return to end		

5.2. Configure ATT_DATA Block

Attendant Data needs to be configured for the IP Attendant 3260 to function. The configuration of Attendant Data is carried out in overlay 15. Type **LD 15** to get into overlay 15 and issue the command **CHG** to change the Attendant Data, subsets of these commands are illustrated below.

Note: The ICI settings in this section are required when configuring Intuition Acclaim.

Prompt	Response	Description
>	LD 15	Enter Overlay 15
REQ	CHG	Change Data
TYPE	ATT	Attendant
CUST	0	Customer Number
OPT	ABDA AHA EBIN BIXA BLA BOHA DNCA DNX DRE FACD IC2 XTG IDP XLF XBL MCTD NCD CUI MWUD LOD PSA RECA REA SYA SLA SIAA ATDA	
ATDN	0	Attendant Directory Number
NCOS	0	Class of Service
CWUP	YES	Call Waiting queue Update
CWCL	2 4	Call Waiting queue Update
CWTM	10 20	Call Waiting Time
CWBZ	NO NO	Call Waiting Buzz
EFLL	0	Efficiency Factor Loading Level
MATT	YES	Consoles used as Message Center
RTIM	30 30 30	Recall Timers for Slow-Answer, Camp-On and Call Waiting
ATIM	0	Attendant Alternative Answering Timer
AQTT	30	Attendant Queue Timing Threshold in seconds
AODN		
SPVC	00	Supervisory Console
SBLF	NO	Standard Busy Lamp Field
RTSA	RSAD	Recall To Same Attendant (aaaa = (RSAD), RSAA, or RSAX)
SACP	SNGL	Semi-Automatic Camp-On (aaaa = (NO), ALL, or SNGL)
ABDN	NO	Activation of the Attendant Blocking of DN feature
IRFR	NO	Internal Attendant Remote Call Forward Password
XRFR	NO	External Attendant Remote Call Forward Password
ADHT	0	Attendant Delay On-Hold Timer in seconds
AFNT	0	Attendant Forward No Answer Timer (must be an even number)
AFBT	0	Attendant Forward Buzz Tone
IDBZ	NO	Trunk Buzzing IADN calls in the attendant queue

Prompt	Response	Description
PBUZ	02 10`	Flexible Priority Buzz cadence for IADN and Code Blue calls
ICI 00	DL0	Attendant Incoming Call Indicators
ICI 01	LD0	ICI number, listed DN0
ICI 02	LD1	ICI number, listed DN1
ICI 03	LD2	ICI number, listed DN2
ICI 04	LD3 LD4	ICI number, listed DN3 and 4
ICI 05	CFB IADN	ICI number, Call Forward Busy
ICI 06	CFN	ICI number, Call Forward No Answer
ICI 07	RLL	ICI number, Recall
ICI 08	IAT	ICI number, Inter-Attendant call
ICI 09	INT	ICI number, Intercept
ICI 10		
ICI 11		
ICI 12		
ICI 13		
ICI 14		
ICI 15		
ICI 16		
ICI 17		
ICI 18		
ICI 19		
RICI		

5.3. Configure Feature Data Block

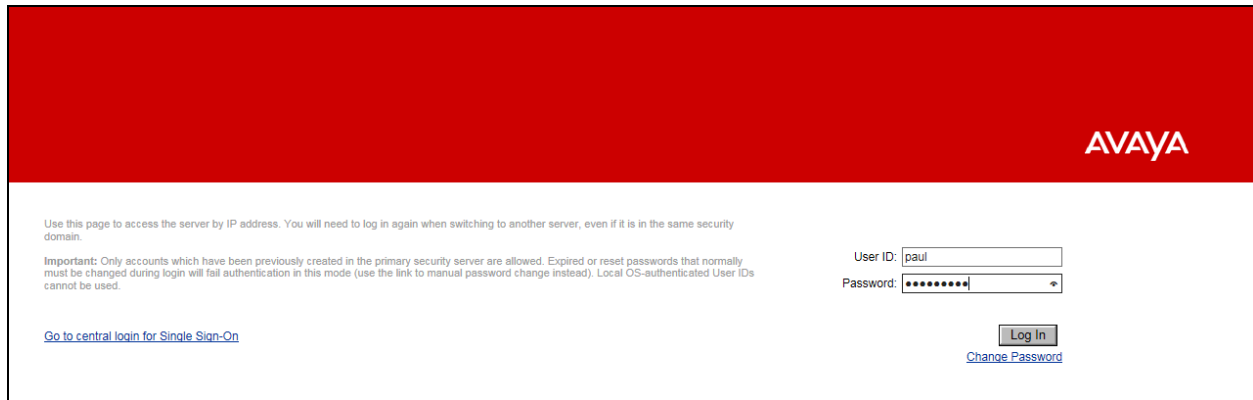
Changes to the Feature Data Block (FTR_Data) are carried out in overlay 15, so staying in LD 15 type **CHG** and then **FTR** to make the necessary changes. For Session Manager to route calls to the CS1000 a Media Services Routing Number (MSRN) needs to be configured. During compliance testing the customer level **MSRN** used was **3999**. To test End to End Signaling **ESST**, **DTMF** and **ESSD** were set to **yes**. All others prompts were left as default or as it was set prior to compliance testing.

Prompt	Response	Description
>	LD 15	Enter Overlay 15
REQ	CHG	Change Data
TYPE	FTR	Feature Data Block
CUST	0	Customer number
OPT	ABDA AHA EBIN BIXA BLA BOHA CFO CFRA COX CPA CTA DBA DNCA DNX DSX DRE DSTD FACD HTU HVA XBL IC2 IDP ILF IHD XTG FKA LOD LRA MCI MCTD CUI MWUD NCD PCMD PSA PVCA RECA REA RNA RTR RTA ROX SDDE SIAA SLA SYA THPD TTAD VOBD CCB D CWRD HLPD HRLD CXOD BWT A GPAD MKRL	
DGRP	0	
IRNG	NO	
PKND	1	
DNDL	NO	
SPRE	71	
PREO	0	
BPSS	NO	
SRCD	0000	
EEST	YES	End-to-End Signaling Tone to originating party
DTMF	YES	DTMF feedback tone
ESSD	YES	End-to-End Signalling Digit Display
TTBL	0	

Prompt	Response	Description
MUS	YES	
MUSR	30	
HCC	NO	
ALDN		
RECD	NO	
PORT	0	
STCB	YES	
NSCP	YES	
TFDR	NO	
RPA	NO	
MCDC	NO	
NAUT	NO	
IDEF	NO	
MTAR	NO	
LEND	NO	
MSCD	NO	
CPCI	NO	
CONF_DSP		
CNFFIELD	NO	
CNF_NAME	CONF	
INTFIELD	NO	
INT_NAME	I	
EXTFIELD	NO	
EXT_NAME	E	
BSFE	NO	
ASPCT	000	
FXS	NO	
DFLT_LANG	ENG	
STS_MSG		
MSG01	Please leave message	
MSG02	Back to work	
MSG03	In a meeting	
MSG04	On a conference call	
MSG05	At lunch	
MSG06	Busy call	
MSG07	Out of the office today	
MSG08	On a business trip	
MSG09	Project deadline today	
MSG10	Will reply after	
VO_ALO	NO	
PCA	ON	
TPDN		
BFS_CFW	YES	
VO_CUR_ZONE_ZDM	NO	
VO_CUR_ZONE_TD	NO	
ZBD	NO	
DSAR_ALLOWED	NO	
MSRN	3999	Media Services Routing Number
NPI	PRIV	
TON	ECDP	

6. Configure IP Media Services on the 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 login page features a red header with the Avaya logo. Below the header, there is a login form with fields for 'User ID' (containing 'paul') and 'Password' (masked with dots). A 'Log In' button is positioned to the right of the password field. Below the password field is a 'Change Password' link. To the left of the login form, there is a block of text providing instructions on how to use the page and a link to 'Go to central login for Single Sign-On'.

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.

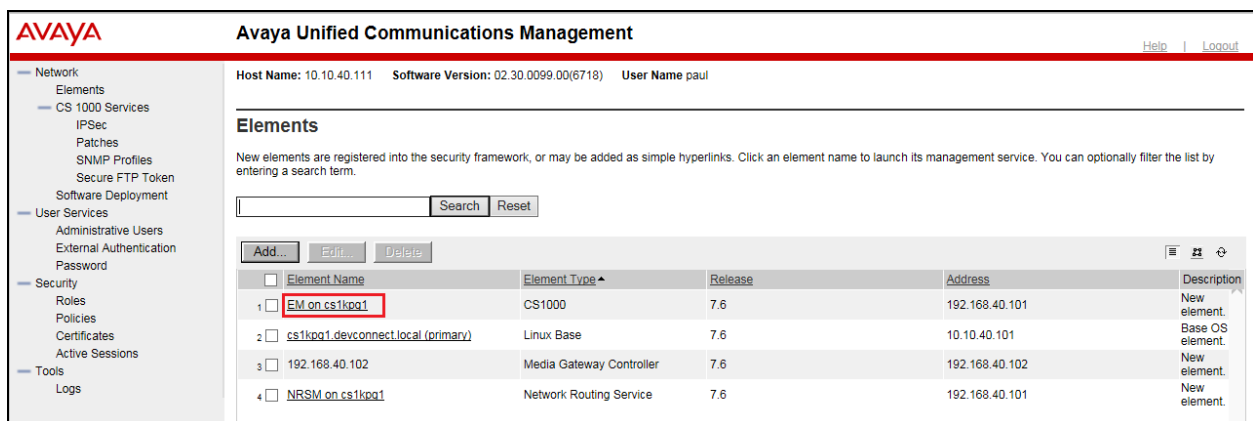
Important: Only accounts which have been previously created in the primary security server are allowed. Expired or reset passwords that normally must be changed during login will fail authentication in this mode (use the link to manual password change instead). Local OS-authenticated User IDs cannot be used.

[Go to central login for Single Sign-On](#)

User ID: paul
Password:

[Log In](#) [Change Password](#)

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



The screenshot shows the 'Avaya Unified Communications Management' interface. The left sidebar contains a navigation menu with categories like Network, CS 1000 Services, User Services, Security, and Tools. The main content area is titled 'Elements' and displays a table of registered elements. The first element, 'EM on cs1kpg1', is highlighted with a red box. The table includes columns for Element Name, Element Type, Release, Address, and Description.

Host Name: 10.10.40.111 Software Version: 02.30.0099.00(6718) User Name paul

Elements

New elements are registered into the security framework, or may be added as simple hyperlinks. Click an element name to launch its management service. You can optionally filter the list by entering a search term.

[Search](#) [Reset](#)

[Add...](#) [Edit...](#) [Delete](#)

	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.

Buttons: Add... Import... Export... Delete Print Refresh

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

Show: ☒ Nodes ☐ Component servers and cards ☒ IPv6 address

Select **IP Media Services** highlighted. Note the **TLAN IP Address** is shown (**10.10.40.111**). This will be required again in **Section 9.1** when configuring the Intuition Acclaim.

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

Node ID: 111 * (0-9999)

Call server IP address: 192.168.40.101 *

TLAN address type: ☒ IPv4 only
☐ IPv4 and IPv6

Embedded LAN (ELAN)

Gateway IP address: 192.168.40.1 *

Subnet mask: 255.255.255.0 *

Telephony LAN (TLAN)

Node IPv4 address: 10.10.40.111 *

Subnet mask: 255.255.255.0 *

Node IPv6 address:

IP Telephony Node Properties

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

Applications (click to edit configuration)

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

* Required Value.

Buttons: Save Cancel

The **IP Media Services Configuration Details** page opens and under the section **Services** the required **IP media services** can be selected. During compliance testing only IP Attendant and Tones were tested, however other services may also be chosen as is shown below.

Under the section **General**, the **IP media services domain name** and the **Application node ID** are both entered.

Scroll down using the vertical scroll bar on the right side of the page to make further changes.

Node ID: 111 - IP Media Services Configuration Details

[Services](#) | [IP Media Services Settings](#) | [SIP URI Map](#) | [Port Settings](#)

Services

IP media services: ☐ Adhoc conference
☒ Music
☒ Announcements
☒ Tones
☒ IP attendant

IP Media Services Settings

Import SIP gateway settings: ☐
Import SIP redirect, SIP URI and domain values from SIP gateway settings.

General

IP media services domain name:
Application node ID: (0-9999)
☐ X509 certificate authority

Proxy or Redirect Server

Primary IP address:

* Required Value.

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

SaveCancel

Scroll down using the vertical scroll bar on the right side of the page to **Proxy or Redirect Server**.


Under the Proxy or Redirect Server section, enter the IP address of the Session Manager in the **Primary IP address** box. Enter the correct **Port** and select **TCP** from the **Transport protocol** dropdown box.


Scroll down using the vertical scroll bar on the right side of the page to make further changes.


Node ID: 111 - IP Media Services Configuration Details

[Services](#) | [IP Media Services Settings](#) | [SIP URI Map](#) | [Port Settings](#)


Proxy or Redirect Server

Primary IP address:
Port: (1 - 65535)
Transport protocol: 

Secondary IP address:
Port: (1 - 65535)
Transport protocol: 

Tertiary IP address:
Port: (1 - 65535)
Transport protocol: 

Local Media Server

Role: 

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

Scroll down using the vertical scroll bar on the right side of the page to **Local Media Server**.

No additional information is required to be filled in for the Local Media Server as the Session Manager is being used to route to the Avaya Media Server and the information for Session Manager is already filled in on the previous page. This screenshots shown below what was configured for compliance testing.

Scroll down using the vertical scroll bar on the right side of the page to make further changes.

Node ID: 111 - IP Media Services Configuration Details

[Services](#) | [IP Media Services Settings](#) | [SIP URI Map](#) | [Port Settings](#)

Local Media Server

Role:

FQDN/IP address:

Port: (1 - 65535)

Transport protocol:

SIP URI Map

Public E.164 domain names	Private domain names
National: <input type="text"/>	UDP: <input type="text" value="udp"/>
Subscriber: <input type="text"/>	CDP: <input type="text" value="cdp.udp"/>
Special number: <input type="text" value="PublicSpecial"/>	Special number: <input type="text" value="PrivateSpecial"/>
Unknown: <input type="text" value="PublicUnknown"/>	Vacant number: <input type="text" value="PrivateUnknown"/>
	Unknown: <input type="text" value="UnknownUnknown"/>

Port Settings

* Required Value.

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

Scroll down to **Port Settings** and **IP Attendant**. In the IP Attendant window, enter the following port information:

- Enter **3500** for **TCM TCP port**
- Enter **5090** for **SIP UDP port**
- Enter **5090** for **SIP TCP port**
- Enter **5091** for **SIP TLS port**

Click on the **Save** button to save the configuration.

Node ID: 111 - IP Media Services Configuration Details

Services | IP Media Services Settings | SIP URI Map | Port Settings

Port Settings

Starting port: (1024 - 65527)
Enter the start port to populate the port numbers below automatically

	TCP	UDP	TLS
Conference	<input type="text" value="6150"/>	<input type="text" value="6150"/>	<input type="text" value="6151"/>
Music	<input type="text" value="6152"/>	<input type="text" value="6152"/>	<input type="text" value="6153"/>
RAN	<input type="text" value="6154"/>	<input type="text" value="6154"/>	<input type="text" value="6155"/>
Tones	<input type="text" value="6156"/>	<input type="text" value="6156"/>	<input type="text" value="6157"/>

IP Attendant

TCM TCP port: (1 - 65535)

SIP UDP port: (1 - 65535)

SIP TCP port: (1 - 65535)

SIP TLS port: (1 - 65535)

* Required Value.

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

Save

Cancel

Once the IP Media Services configuration is saved the Node must also be saved. On the **Node Details** page, click on the **Save** button.

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

Node ID: * (0-9999)

Call server IP address: *

TLAN address type: ☒ IPv4 only
☐ IPv4 and IPv6

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

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

IP Telephony Node Properties

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

Applications (click to edit configuration)

- [SIP Line](#)
- [Terminal Proxy Server \(TPS\)](#)
- [Gateway \(SIPGw\)](#)
- [Personal Directories \(PD\)](#)
- [Presence Publisher](#)
- [IP Media Services](#)

* Required Value.

Save

Cancel

Associated Signaling Servers & Cards

Select to add ▼
Add
Remove
Make Leader

Print | Refresh

<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

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.

PG; Reviewed:
SPOC 2/20/2018

Solution & Interoperability Test Lab Application Notes
©2018 Avaya Inc. All Rights Reserved.

17 of 60
IA_CS1K76SM71

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**.

AVAYA CS1000 Element Manager

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

Synchronize Configuration Files (Node ID <111>)

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

Start Sync Cancel Restart Applications Print Refresh

<input checked="" type="checkbox"/>	Hostname	Type	Applications	Synchronization Status
<input checked="" type="checkbox"/>	cs1kpg1	Signaling_Server	SIP Line, LTFS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	Sync required

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

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

AVAYA CS1000 Element Manager

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

Synchronize Configuration Files (Node ID <111>)

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

Start Sync Cancel Print Refresh

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

Once the Sync is completed, select the **Hostname** again and click on **Restart Applications**. This will complete the Signalling Server configuration for IP Attendant.

AVAYA CS1000 Element Manager

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

Synchronize Configuration Files (Node ID <111>)

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

Start Sync Cancel **Restart Applications** Print Refresh

<input checked="" type="checkbox"/>	Hostname	Type	Applications	Synchronization Status
<input checked="" type="checkbox"/>	cs1kpg1	Signaling_Server	SIP Line, LTFS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	Sync required

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

7. Configure Avaya Media Server

This section provides the procedures to configure Avaya Media Server. It is implied that Avaya Media Server is already in place; the Media Server application deployed and is part of the security framework. Ensure that the License contains RFC4240, see **Appendix D**.

Avaya Media Server is configured using a web interface accessed via a link from System Manager → CS1000 → Elements (not shown) or UCM natively as is shown below. The configuration operations described in this section can be summarized as follows:

- Adding the SIP Domain
- Adding SIP Nodes and Routes
- Restart Application

For compliance testing the Media Server was accessed directly by navigating to **http://<Media Server IP Address>:8443/emlogin** as is shown below. Log in using appropriate credentials.

Sign in to manage Avaya Media Server.

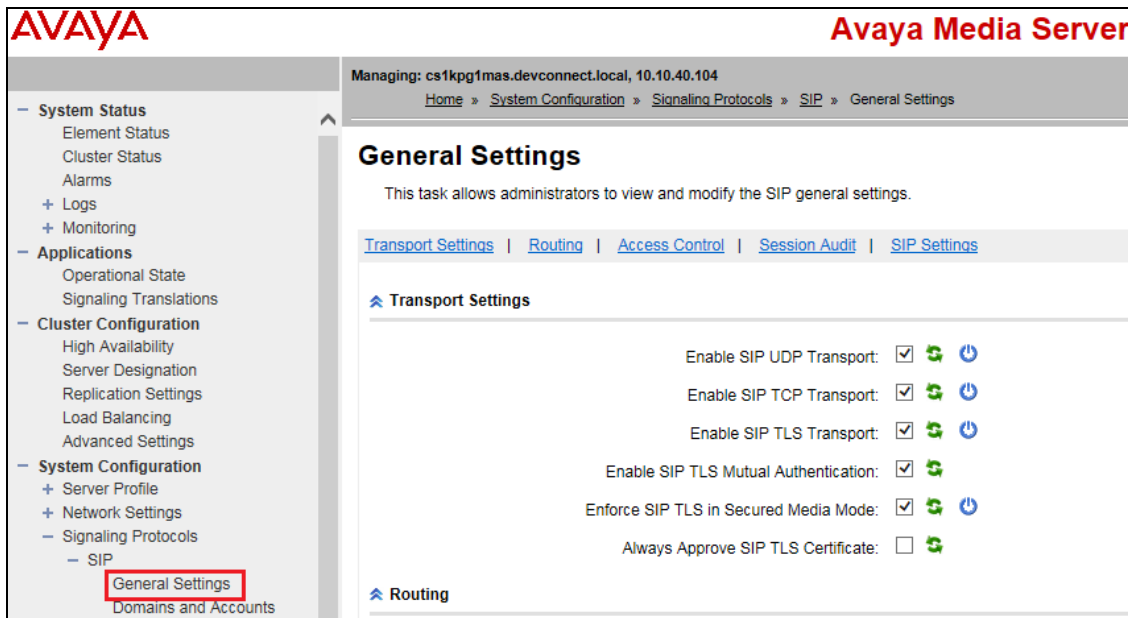
This system is restricted solely to authorized users for legitimate business purposes only. The actual or attempted unauthorized access, use, or modification of this system is strictly prohibited. Unauthorized users are subject to company disciplinary procedures and/or criminal and civil penalties under state, federal, or other applicable domestic and foreign laws. The use of this system may be monitored and recorded for administrative and security reasons. Anyone accessing this system expressly consents to such monitoring and recording, and is advised that if it reveals possible evidence of criminal activity, the evidence of such activity may be provided to law enforcement officials. All users must comply with all corporate instructions regarding the protection of information assets.

User ID:

Password:

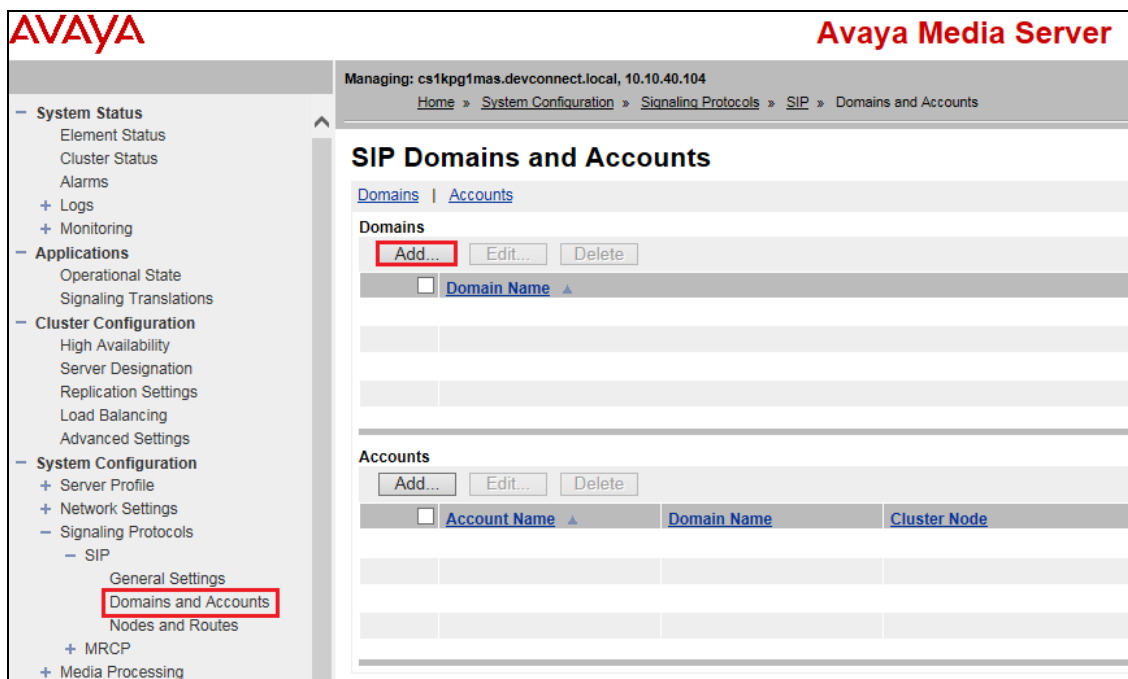
7.1. Configure Signalling Protocols

Navigate to **System Configuration** → **Signaling Protocols** → **SIP** → **General Settings** from the left menu as shown below. In the main window ensure that all the SIP Transport Protocols are ticked as shown, or at the very least tick the appropriate protocols for the site in question.



7.1.1. Adding the SIP Domain

Staying in the same menu, select **SIP** → **Domains and Accounts** and click on the **Add** button.



Once the **Add SIP Domain** page opens, enter in the **Name** box the name of the domain Avaya Media Server belongs and then click on the **Save** button. For compliance testing the domain was **devconnect.local**, this will also be referenced in **Section 8.1**.

7.1.2. Adding SIP Nodes and Routes

A SIP Node and a Route need to be configured so as to allow Avaya Media Server to communicate with Session Manager. To add the SIP Node and Route select **Nodes and Routes**. Click on the **Add** button.

Once the **Add SIP Trusted Node** page opens add the necessary IP addresses such as that of the Session Manager in the **Host or Server Address** box and click on the **Save** button.

Avaya Media Server Help | Sign Out admin2

Managing: cs1kpg1mas.devconnect.local, 10.10.40.104

Home > System Configuration > Signaling Protocols > SIP > Nodes and Routes > Add SIP Trusted Node

Add SIP Trusted Node

Host or Server Address:

Save Cancel

A Route must be added to the Trusted Node. Click on the **Routes Add** button.

Avaya Media Server Help | Sign Out admin2

Managing: cs1kpg1mas.devconnect.local, 10.10.40.104

Home > System Configuration > Signaling Protocols > SIP > Nodes and Routes

SIP Nodes and Routes

[Trusted Nodes](#) | [Routes](#)

Trusted Nodes

Add... Edit... Delete

<input type="checkbox"/>	Name
<input type="checkbox"/>	10.10.40.101
<input type="checkbox"/>	10.10.40.111
<input type="checkbox"/>	10.10.40.52

Routes

Add... Edit... Delete

<input type="checkbox"/>	Domain	Address	Port	Transport	Proxy	IM Proxy	Registrar	Priority	Weight	Enabled
--------------------------	--------	---------	------	-----------	-------	----------	-----------	----------	--------	---------

Once the **Add SIP Route** page opens, enter the following in the **General** section:

- Check the **Enabled** Check box
- Select the Domain from the **Domain** drop down box (e.g., **devconnect.local**)
- Select the Trusted Node from the **Trusted Node** drop down box. (IP address of Session Manager)
- Select **UDP** from the **Transport** drop down box

In the **Roles** section, check the **Proxy** check box. Click on the **Save** button to save the configuration.

Edit SIP Route

[General](#) | [Roles](#) | [Properties](#)

General

Enabled:

☒

Domain:

devconnect.local

Trusted Node:

10.10.40.52

Transport:

UDP

Remote Port:

5060

Priority:

0

(0 - 65,535)

Weight:

10

(0 - 65,535)

Roles

Proxy:

☒

Registrar:

☐

IM Proxy:

☒

Properties

Server Keepalive:

Keep Alive Using OPTIONS

SIP Route Type:

Standard SIP

SIP Server Poll Timer:

30000

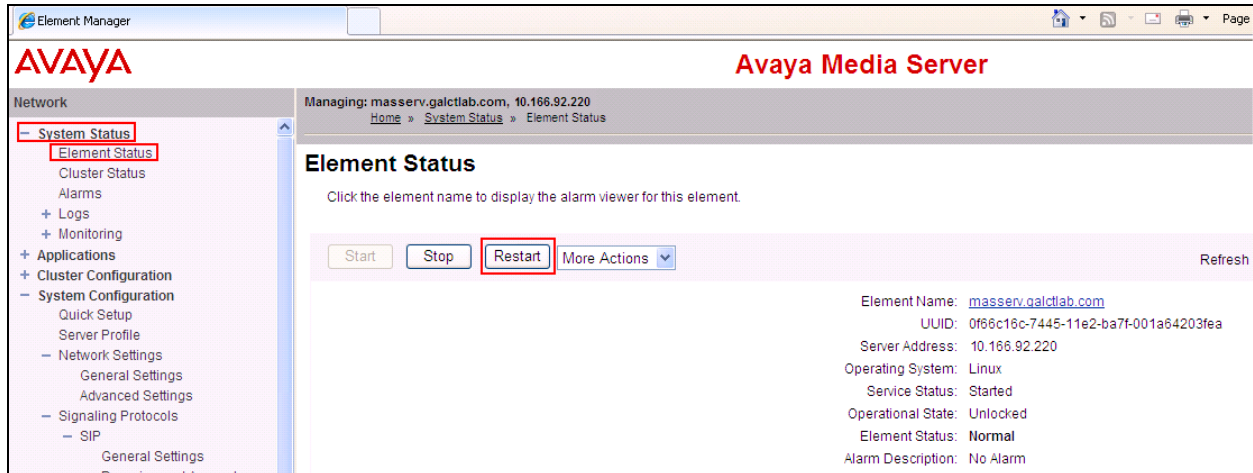
(30,000 - 600,000 milliseconds)

Save

Cancel

7.2. Restart Element

Once Avaya Media Server configuration is complete the Element must be restarted. To restart the Element, select **System Status** → **Element Status** and click on the **Restart** button.

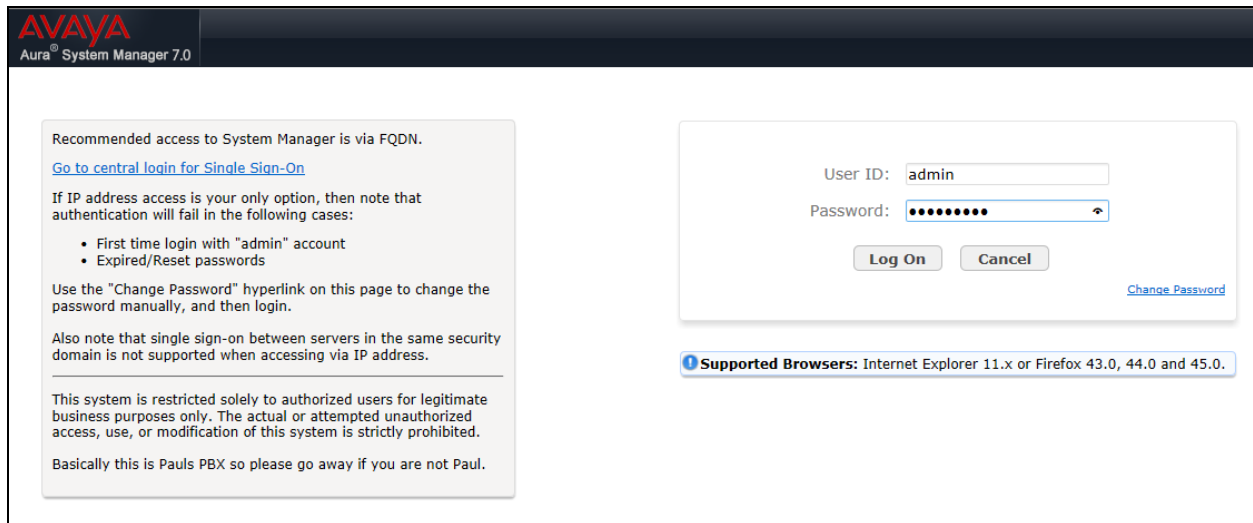


After selecting **Restart**, click on the **Confirm** button.



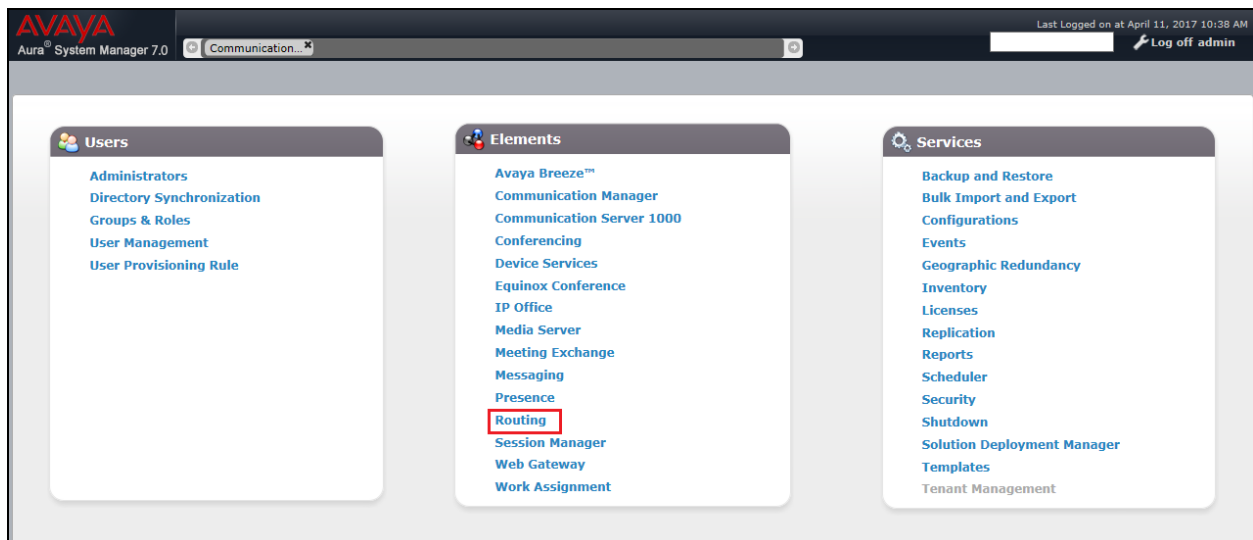
8. Configure Avaya Aura® Session Manager

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.



The login page for Avaya Aura System Manager 7.0. It features a dark header with the Avaya logo and 'Aura® System Manager 7.0'. The main content area is white. On the left, there is a grey box with instructions: 'Recommended access to System Manager is via FQDN. Go to central login for Single Sign-On. If IP address access is your only option, then note that authentication will fail in the following cases: • First time login with "admin" account • Expired/Reset passwords. Use the "Change Password" hyperlink on this page to change the password manually, and then login. Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address. This system is restricted solely to authorized users for legitimate business purposes only. The actual or attempted unauthorized access, use, or modification of this system is strictly prohibited. Basically this is Pauls PBX so please go away if you are not Paul.' On the right, there is a login form with 'User ID: admin' and 'Password: [masked]' fields, 'Log On' and 'Cancel' buttons, and a 'Change Password' link. Below the form, a blue banner states 'Supported Browsers: Internet Explorer 11.x or Firefox 43.0, 44.0 and 45.0.'

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

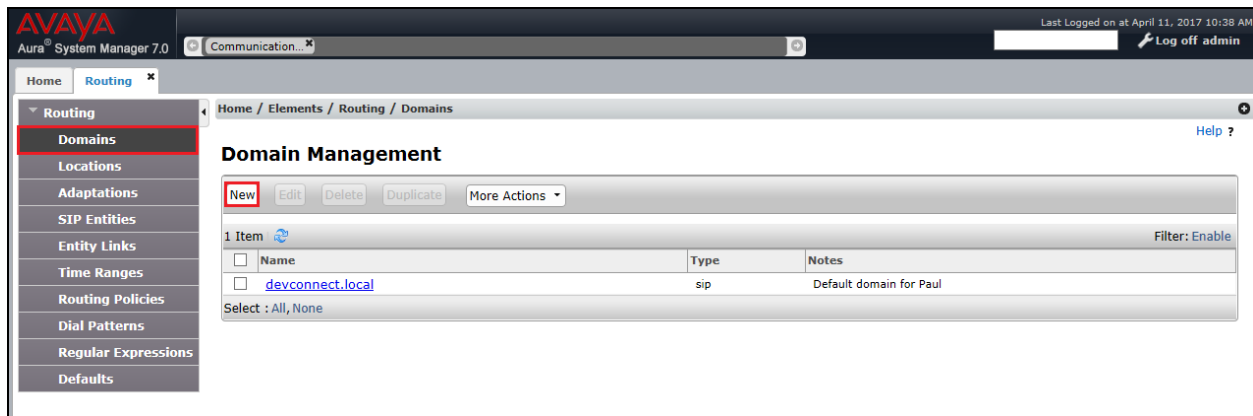


8.1. Domains and Locations

Note: It is assumed that a domain and a location have already been setup; therefore a quick overview of the domain and location that were used in compliance testing is provided here.

8.1.1. Add a new Domain

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



Enter the domain **Name**, note this will be the same as that domain configured in **Section 6** and **Section 7**, and ensure the **Type** is set to **SIP**. Click on **Commit** once done.

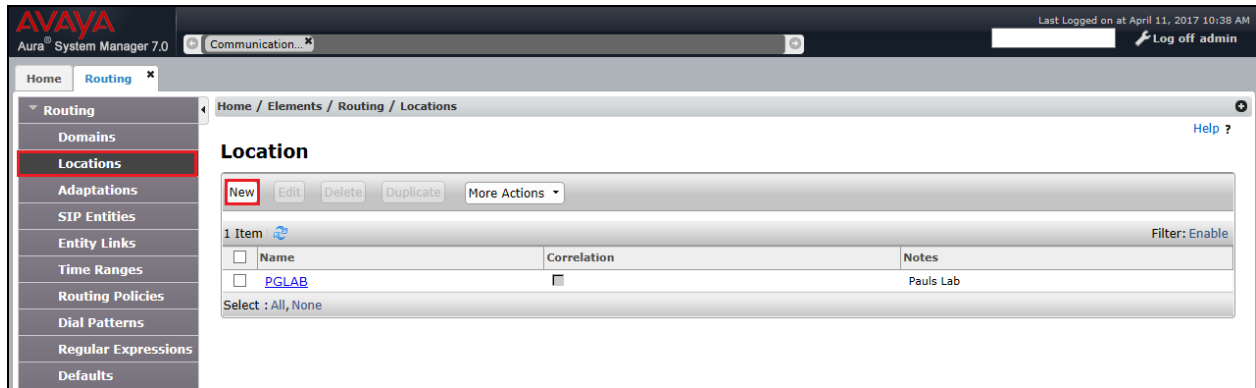
The screenshot shows the 'Domain Management' form. At the top right are 'Commit' and 'Cancel' buttons. Below is a table with one item:

Name	Type	Notes
* devconnect.local	sip	Default domain for Paul


At the bottom right are 'Commit' and 'Cancel' buttons.

8.1.2. 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 displays the Avaya Aura System Manager 7.0 interface. The left sidebar shows the 'Locations' menu item highlighted. The main content area is titled 'Location' and features a top action bar with buttons: 'New' (highlighted with a red box), 'Edit', 'Delete', 'Duplicate', and 'More Actions'. Below this is a table with one item, 'PGLAB'. The table has columns for 'Name', 'Correlation', and 'Notes'. The 'Name' column contains 'PGLAB' with a checkbox. The 'Correlation' column contains a small icon. The 'Notes' column contains 'Pauls Lab'. A 'Filter: Enable' link is visible on the right. At the bottom, there is a 'Select : All, None' option.

Name	Correlation	Notes
<input type="checkbox"/> PGLAB		Pauls Lab

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

CommitCancel

General

*

Name:

PGLAB

Notes:

Pauls Lab

Dial Plan Transparency in Survivable Mode

Enabled:

☐

Listed Directory Number:

Associated CM SIP Entity:

Overall Managed Bandwidth

Managed Bandwidth Units:

Kbit/sec

Total Bandwidth:

Multimedia Bandwidth:

Audio Calls Can Take Multimedia Bandwidth:

☒

Per-Call Bandwidth Parameters

Maximum Multimedia Bandwidth (Intra-Location):

2000

Kbit/Sec

Maximum Multimedia Bandwidth (Inter-Location):

2000

Kbit/Sec

*

Minimum Multimedia Bandwidth:

64

Kbit/Sec

*

Default Audio Bandwidth:

80

Kbit/sec

Alarm Threshold

Overall Alarm Threshold:

80

%

Multimedia Alarm Threshold:

80

%

*

Latency before Overall Alarm Trigger:

5

Minutes

*

Latency before Multimedia Alarm Trigger:

5

Minutes

Location Pattern

AddRemove

2 Items

☐

IP Address Pattern

Notes

☐

*

10.10.40.*

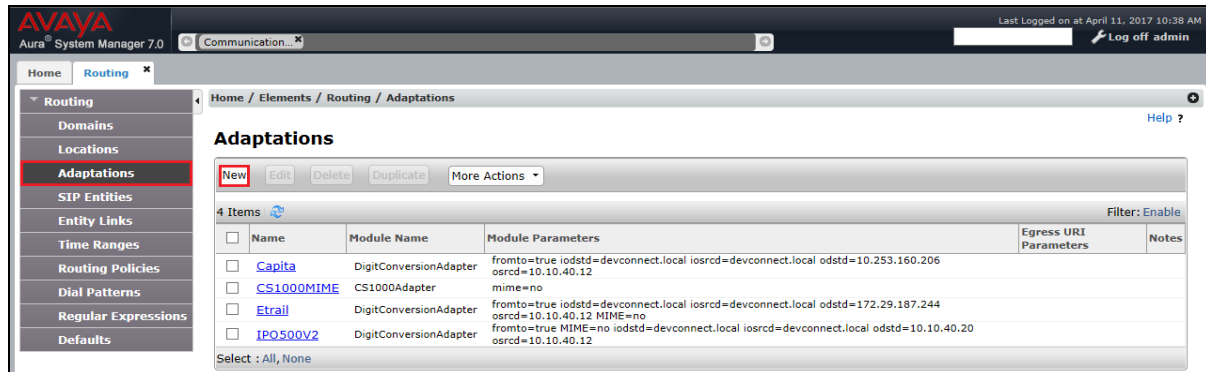
Pauls subnet

Select : All, None

8.2. Creating an Adaptation for the Avaya Media Server SIP Entity

An adaptation can allow the altering of a SIP Message. An adaptation is created to take the MIME out of the CS1000 invite to the Media Server. Select **Adaptations** from the left window and click on **New** in the main window.

Note: Both the Avaya Media Server and the CS1000 SIP Entities need to be assigned this Adaptation in order for the Intuition Acclaim Switchboard to register correctly with the CS1000.



Enter a suitable **Adaptation Name**, select **CS1000Adapter** in the **Module Name**. The **Module Parameter Type** should be set to **Name-Value Parameter**. Add the following module parameters and click on **Commit** once complete.

- **fromto** **true**
- **MIME** **no**

Adaptation Details [Commit] [Cancel]

General

* **Adaptation Name:** Enghouse

* **Module Name:** CS1000Adapter

Module Parameter Type: Name-Value Parameter

Add **Remove**

Name	Value
fromto	true
MIME	no

Select : All, None

Egress URI Parameters:

Notes:

Digit Conversion for Incoming Calls to SM

Add **Remove**

0 Items

Matching Pattern	Min	Max	Phone Context	Delete Digits	Insert Digits	Address to modify	Adaptation Data	Notes
------------------	-----	-----	---------------	---------------	---------------	-------------------	-----------------	-------

Digit Conversion for Outgoing Calls from SM

Add **Remove**

0 Items

Matching Pattern	Min	Max	Phone Context	Delete Digits	Insert Digits	Address to modify	Adaptation Data	Notes
------------------	-----	-----	---------------	---------------	---------------	-------------------	-----------------	-------

8.3. Adding Avaya Media Server as a SIP Entity

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

The screenshot shows the Avaya Aura System Manager 7.0 interface. The left sidebar contains a navigation menu with options: Home, Routing, Domains, Locations, Adaptations, SIP Entities (highlighted), 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 table has columns for Name, FQDN or IP Address, Type, and Notes. The 'New' button is highlighted in the top right corner of the table.

Name	FQDN or IP Address	Type	Notes
aacc64SIPvmppg	10.10.40.55	SIP Trunk	
AACC70vmppg	10.10.40.80	SIP Trunk	AACC70vmppg
ASBCE_PG	10.10.40.151	SIP Trunk	Session Boarder Controller
Capita	10.253.160.206	SIP Trunk	Capita
cm63vmppg	10.10.40.31	CM	R6.3 CM
CM70Redundancy	10.10.40.165	CM	
cm70vmppg	10.10.40.13	CM	
CPE	10.10.40.251	SIP Trunk	For Stephen Wilson
CS1000E	10.10.40.111	Other	CS1KPG1

Enter a suitable **Name** for the new SIP Entity and the **IP Address** of the Media Server. Add the Adaptation that was created in **Section 8.2**. Enter the correct **Time Zone** and **Location** and click on **Commit**.

The screenshot shows the 'SIP Entity Details' form. The 'General' tab is selected. The form contains the following fields:

- Name:** CS1000 MAS
- FQDN or IP Address:** 10.10.40.104
- Type:** SIP Trunk
- Notes:** CS1000 MAS
- Adaptation:** Enghouse
- Location:** DevConnect_Lab_PG
- Time Zone:** Europe/Dublin
- SIP Timer B/F (in seconds):** 4
- Minimum TLS Version:** Use Global Setting
- Credential name:** (empty field)
- Securable:** ☐
- Call Detail Recording:** egress

Buttons for 'Commit' and 'Cancel' are located at the top right of the form.

8.4. Adding the Avaya Media Server Entity Link

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

The screenshot shows the Avaya Aura System Manager 7.0 interface. The left sidebar has a menu with 'Entity Links' highlighted. The main window displays the 'Entity Links' table with 18 items. The table has columns: Name, SIP Entity 1, Protocol, Port, SIP Entity 2, DNS Override, Port, Connection Policy, Deny New Service, and Notes. The 'New' button is highlighted in the top toolbar.

Name	SIP Entity 1	Protocol	Port	SIP Entity 2	DNS Override	Port	Connection Policy	Deny New Service	Notes
<input type="checkbox"/> aacc64SIPvmppg	sm70vmppg	TCP	5060	aacc64SIPvmppg	<input type="checkbox"/>	5060	trusted	<input checked="" type="checkbox"/>	
<input type="checkbox"/> AACCC70vmppg	sm70vmppg	TCP	5060	AACCC70vmppg	<input type="checkbox"/>	5060	trusted	<input checked="" type="checkbox"/>	
<input type="checkbox"/> ASBCE_TCP	sm70vmppg	TCP	5060	ASBCE_PG	<input type="checkbox"/>	5060	trusted	<input checked="" type="checkbox"/>	
<input type="checkbox"/> cm63vmppg_TLS	sm70vmppg	TLS	5061	cm63vmppg	<input type="checkbox"/>	5061	trusted	<input type="checkbox"/>	
<input type="checkbox"/> CPE	sm70vmppg	UDP	5060	CPE	<input type="checkbox"/>	5060	trusted	<input checked="" type="checkbox"/>	
<input type="checkbox"/> CS1000E	sm70vmppg	TCP	5060	CS1000E	<input type="checkbox"/>	5060	trusted	<input type="checkbox"/>	

Enter a suitable **Name** for the Entity Link and select the **Session Manager** SIP Entity for **SIP Entity 1** and the newly created Media Server Entity 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' form in the Avaya Aura System Manager 7.0 interface. The form has a 'Commit' button and a 'Cancel' button. The table below shows the details of the new Entity Link being added.

Name	SIP Entity 1	Protocol	Port	SIP Entity 2	Port	DNS Override	Connection Policy
* SM_MAS_UDP	* SM71vmppg	UDP	* 5060	* CS1000 MAS	* 5060	<input type="checkbox"/>	trusted

Select : All, None

8.5. Adding the Avaya Media Server Routing Policy

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

Avaya Aura System Manager 7.0

Home / Elements / Routing / Routing Policies

Routing Policies

New Edit Delete Duplicate More Actions

15 Items Filter: Enable

<input type="checkbox"/>	Name	Disabled	Retries	Destination	Notes
<input type="checkbox"/>	To_aacc64SIPvmg	<input type="checkbox"/>	0	aacc64SIPvmg	aacc64SIPvmg
<input type="checkbox"/>	To_AACC70vmg	<input type="checkbox"/>	0	AACC70vmg	To_AACC70vmg
<input type="checkbox"/>	To ASBCE	<input type="checkbox"/>	0	ASBCE_PG	Calls to ASBCE
<input type="checkbox"/>	To Capita	<input type="checkbox"/>	0	Capita	To Capita
<input type="checkbox"/>	To_cm63vmg	<input type="checkbox"/>	0	cm63vmg	Routing to CM63
<input type="checkbox"/>	To CM70 Redundancy	<input type="checkbox"/>	0	CM70Redundancy	To CM70 Redundancy
<input type="checkbox"/>	To_cm70vmg	<input type="checkbox"/>	0	cm70vmg	
<input type="checkbox"/>	To_CPE	<input type="checkbox"/>	0	CPE	For Stephen
<input type="checkbox"/>	To_CS1000E	<input type="checkbox"/>	0	CS1000E	Routing to CS1KPG1

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

Routing Policy Details Commit Cancel Help ?

General

* Name: To CS1000 MAS

Disabled: ☐

* Retries: 0

Notes: To CS1000 MAS

SIP Entity as Destination

Select

Name	FQDN or IP Address	Type	Notes
------	--------------------	------	-------

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

SIP EntitiesHelp ?SelectCancel

SIP Entities

11 Items Filter: Enable

	Name	FQDN or IP Address	Type	Notes
<input type="radio"/>	AACC71vmppg	10.10.40.80	SIP Trunk	AACC R7.1
<input type="radio"/>	AAMessagingR633	10.10.40.22	SIP Trunk	AAMessagingR633
<input type="radio"/>	AAMessagingR7	10.10.40.168	SIP Trunk	AAMessaging
<input type="radio"/>	Altitude	10.10.40.122	SIP Trunk	Altitude
<input type="radio"/>	cm70vmppg	10.10.40.13	CM	cm70vmppg
<input type="radio"/>	CM71vmppg	10.10.40.47	CM	CM71vmppg
<input checked="" type="radio"/>	CS1000 MAS	10.10.40.104	SIP Trunk	CS1000 MAS
<input type="radio"/>	CS1KPG1	10.10.40.111	SIP Trunk	CS1000 PG
<input type="radio"/>	MiCC	10.10.40.128	SIP Trunk	Mitel MiCC
<input type="radio"/>	PresenceOpenGate	10.10.40.139	SIP Trunk	PresenceOpenGate
<input type="radio"/>	SM71vmppg	10.10.40.52	Session Manager	SM71vmppg

Select : None

SelectCancel

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

Routing Policy DetailsHelp ?CommitCancel

General

* Name:

Disabled: ☐

* Retries:

Notes:

SIP Entity as Destination

Select

Name	FQDN or IP Address	Type	Notes
CS1000 MAS	10.10.40.104	SIP Trunk	CS1000 MAS

8.6. Adding a Dial Pattern for the Avaya Media Server

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

Avaya Aura System Manager 7.0

Home / Elements / Routing / Dial Patterns

Dial Patterns

New Edit Delete Duplicate More Actions

17 Items Filter: Enable

<input type="checkbox"/>	Pattern	Min	Max	Emergency Call	Emergency Type	Emergency Priority	SIP Domain	Notes
<input type="checkbox"/>	10	4	4	<input type="checkbox"/>			devconnect.local	Ext 10xx on CM63vmpg
<input type="checkbox"/>	2016	4	4	<input type="checkbox"/>			devconnect.local	SIP Trunk to CM63
<input type="checkbox"/>	3	4	4	<input type="checkbox"/>			devconnect.local	To CS1000E
<input type="checkbox"/>	40	4	4	<input type="checkbox"/>			devconnect.local	Calls to SIP exts in CS1000
<input type="checkbox"/>	450	4	4	<input type="checkbox"/>			devconnect.local	To Capita
<input type="checkbox"/>	49	4	4	<input type="checkbox"/>			devconnect.local	To NovaLink 10.10.40.44
<input type="checkbox"/>	51	4	4	<input type="checkbox"/>			devconnect.local	To Etrali
<input type="checkbox"/>	52	4	4	<input type="checkbox"/>			devconnect.local	Was goign to IP Office 500 V2 Now CM70vmpg
<input type="checkbox"/>	5999	4	4	<input type="checkbox"/>			devconnect.local	Messaging (Voicemail)

Enter the required digits for the Pattern. For compliance testing 3399 was used, which means that when 3399 is dialled it will use the Routing Policy selected. **3399** is entered as the **Pattern** and the **Min** and **Max** digit length of **4** is used. Ensure that the correct domain is entered in **SIP Domain**. In this example the domain created in **Section 8.1** is added. Click on **Add** under **Originating Locations and Routing Policies** in order to select this Routing Policy.

Dial Pattern Details Commit Cancel

General

* Pattern: 3999

* Min: 4

* Max: 4

Emergency Call: ☐

Emergency Priority: 1

Emergency Type:

SIP Domain: devconnect.local

Notes: To CS1000 MAS

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"/>							

Select : All, None

Select the Originating Location, this will be the location added in **Section 8.1** select the newly created routing policy for the Media Server created in **Section 8.5** for **Routing Policies**.

Originating Location

[Help ?](#)

Originating Location

☐ Apply The Selected Routing Policies to All Originating Locations

1 Item
Filter: Enable

<input checked="" type="checkbox"/>	Name	Notes
<input checked="" type="checkbox"/>	DevConnect_Lab_PG	DevConnect_Lab_PG

Select : All, None

Routing Policies

10 Items
Filter: Enable

<input type="checkbox"/>	Name	Disabled	Destination	Notes
<input type="checkbox"/>	To AACC71vmppg	<input type="checkbox"/>	AACC71vmppg	To AACC71vmppg
<input type="checkbox"/>	To_AAMessaging	<input type="checkbox"/>	AAMessagingR7	To_AAMessaging
<input type="checkbox"/>	To AA Messaging R633	<input type="checkbox"/>	AAMessagingR633	To AA Messaging R633
<input type="checkbox"/>	To Altitude	<input type="checkbox"/>	Altitude	To Altitude
<input type="checkbox"/>	To_cm70vmppg	<input type="checkbox"/>	cm70vmppg	To_cm70vmppg
<input type="checkbox"/>	To_CM71vmppg	<input type="checkbox"/>	CM71vmppg	To_CM71vmppg
<input checked="" type="checkbox"/>	To CS1000 MAS	<input type="checkbox"/>	CS1000 MAS	To CS1000 MAS
<input type="checkbox"/>	To_CS1KPG1	<input type="checkbox"/>	CS1KPG1	To_CS1KPG1
<input type="checkbox"/>	To_MiCC	<input type="checkbox"/>	MiCC	To Mitel MiCC
<input type="checkbox"/>	To_PresenceOG	<input type="checkbox"/>	PresenceOpenGate	To_PresenceOG

Select : All, None

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

Dial Pattern Details

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"/>	DevConnect_Lab_PG	DevConnect_Lab_PG	To CS1000 MAS	0	<input type="checkbox"/>	CS1000 MAS	To CS1000 MAS

Select : All, None

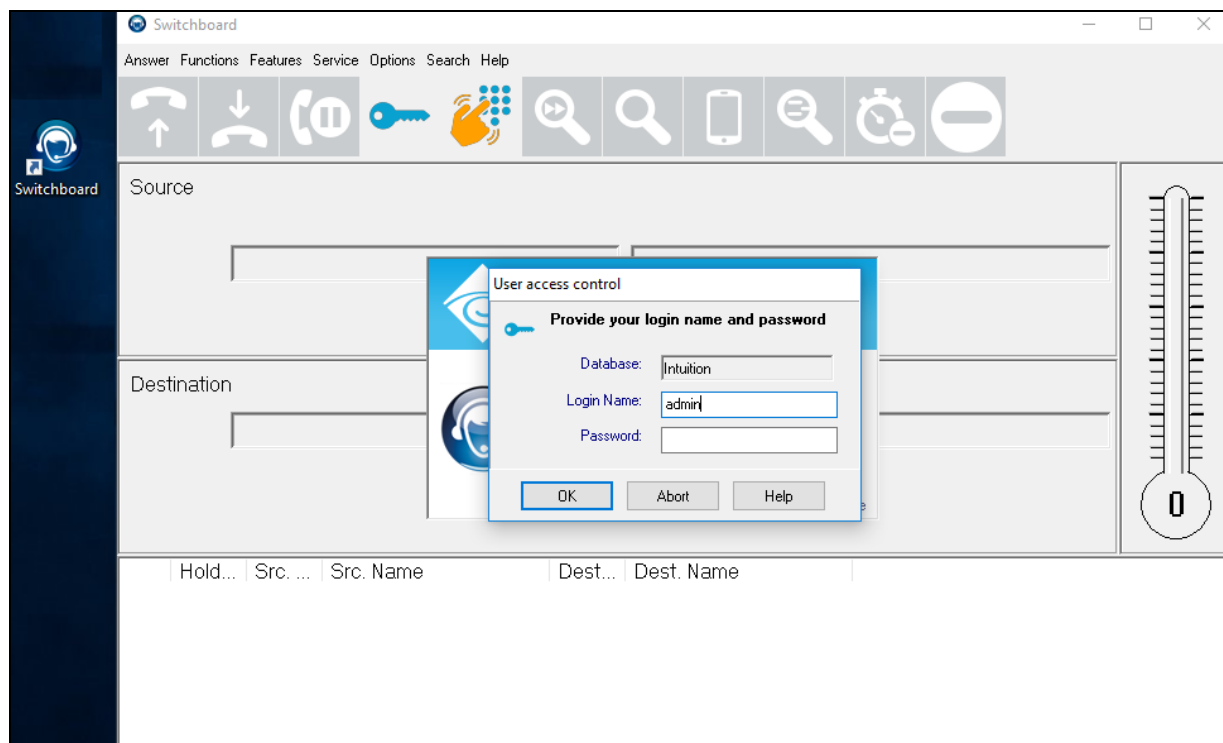
9. Configure Intuition Acclaim

This section provides the procedures to configure Intuition Acclaim. Intuition Acclaim was installed on a Microsoft Windows 10 operating system. It is implied that Intuition Acclaim is already installed including the license and that the SQL database and Firewall settings are configured. The Attendant Keys and Incoming Call Indicators (ICI) that were configured in **Section 5.1** and **Section 5.2** are required for the configuration of the Switchboard but the actual configuration is beyond the scope of these Application Notes. The configuration operations described in this section can be summarized as follows:

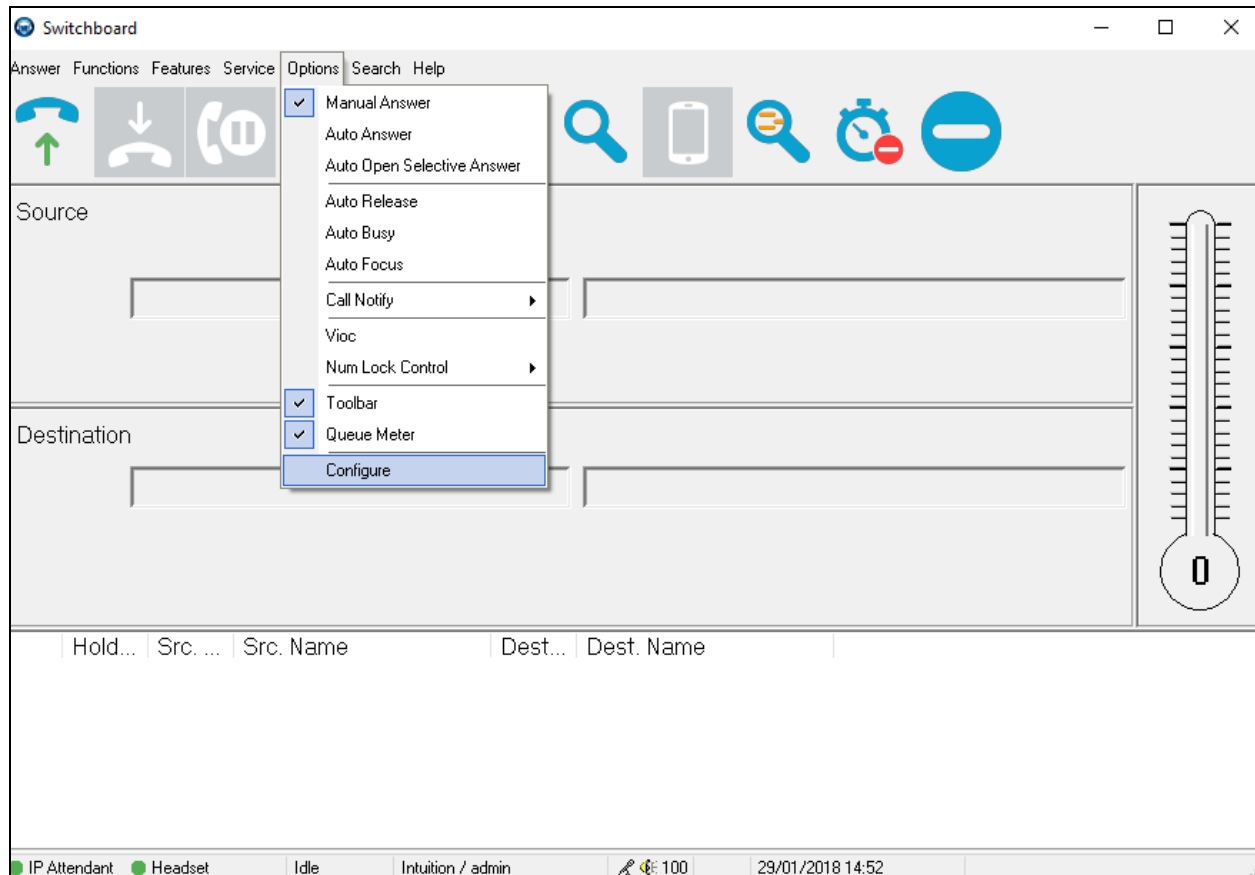
- Configure IP Attendant Connections
- Configure Voice Settings
- Restart the Switchboard application


9.1. Configure IP Attendant Connections

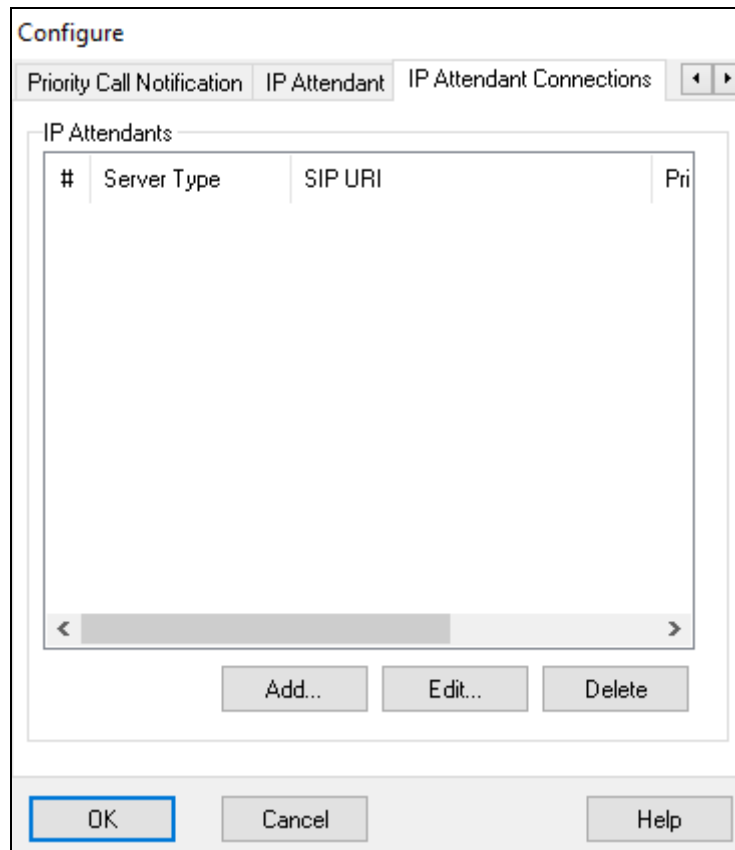
To configure the IP Attendant Connections open the **Switchboard** application using the Switchboard shortcut found on the desktop and log in using the appropriate administrator/supervisor credentials.



Once the Switchboard application is opened, select **Options** followed by **Configure**.



Once the Configure window opens, click on the right arrow  until the **IP Attendant Connections** tab appears. Click on the **IP Attendant Connections** tab followed by the **Add** button.



Once the **IP Attendant Details** window opens, enter the following:

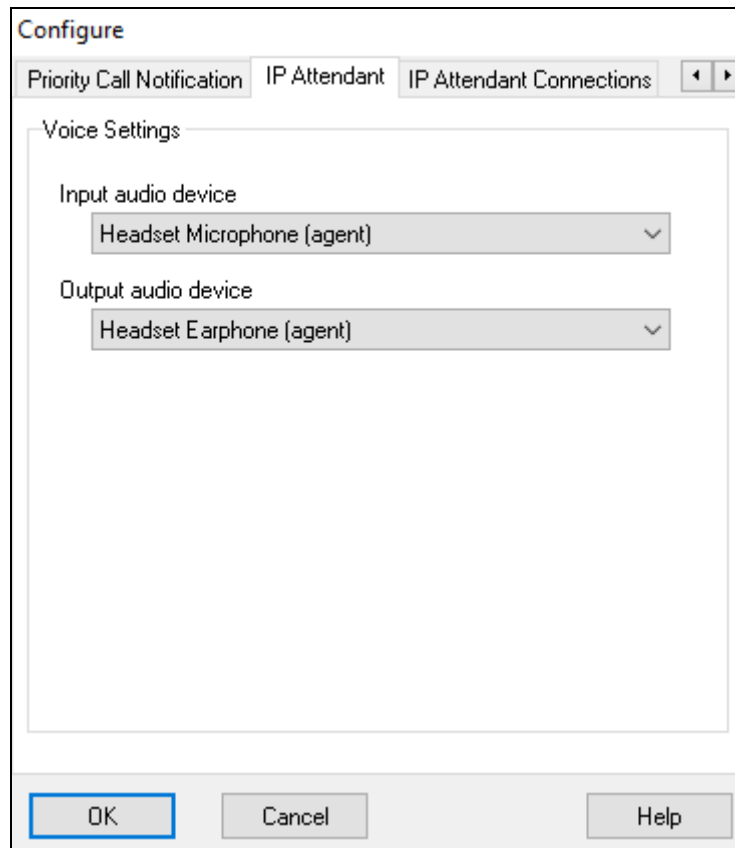
- Select the Server Position from the **Server Position** dropdown box. If this is the only IP attendant on the PC **Server Position 1** will be the default
- Select **Direct** from the **Server Type** dropdown box
- Enter the Telephony LAN IP address of CS1000 Node (see **Section 6**) followed by :5090 in the **SIP URI** field (e.g., **10.10.40.111:5090**)
- Enter the Telephony LAN IP address of CS1000 Node (see **Section 6**) in the **TCM Address** field (e.g., **10.10.40.111**)
- Enter the Primary TN as configured in **Section 5.1** in the **Primary TN** field
Note: Enter the TN format exactly as shown in the screen shot below (Loop Shelf Card Unit)
- Enter the Secondary TN as configured in **Section 5.1** in the **Secondary TN** field
Note: Enter the TN format exactly as shown in the screen shot below (Loop Shelf Card Unit)

Click on the **OK** button to save.

The screenshot shows a 'Configure' window with three tabs: 'Priority Call Notification', 'IP Attendant', and 'IP Attendant Connections'. The 'IP Attendant' tab is active. Within this tab, there is a table with one row labeled 'IP Attendant 1'. To the right of the table, a 'Priority' column shows the value '10'. The 'IP Attendant 1' row is expanded to show configuration fields: 'Server Position' (dropdown with '1' selected), 'Server Type' (dropdown with 'Direct' selected), 'SIP URI' (text field with '10.10.40.111:5090'), 'TCM Address' (text field with '10.10.40.111'), 'Primary TN' (text field with '100 0 0 13'), and 'Secondary TN' (text field with '100 0 0 14'). At the bottom of the window are 'OK', 'Cancel', and 'Help' buttons. The 'OK' button is highlighted with a blue border.

9.2. Configure Voice Settings

Click on the **IP Attendant** tab and select the **Input** and **Output audio device** that is to be used for voice with Intuition Acclaim from the appropriate dropdown boxes. Click on the **OK** button to save.



9.3. Restart the Switchboard Application

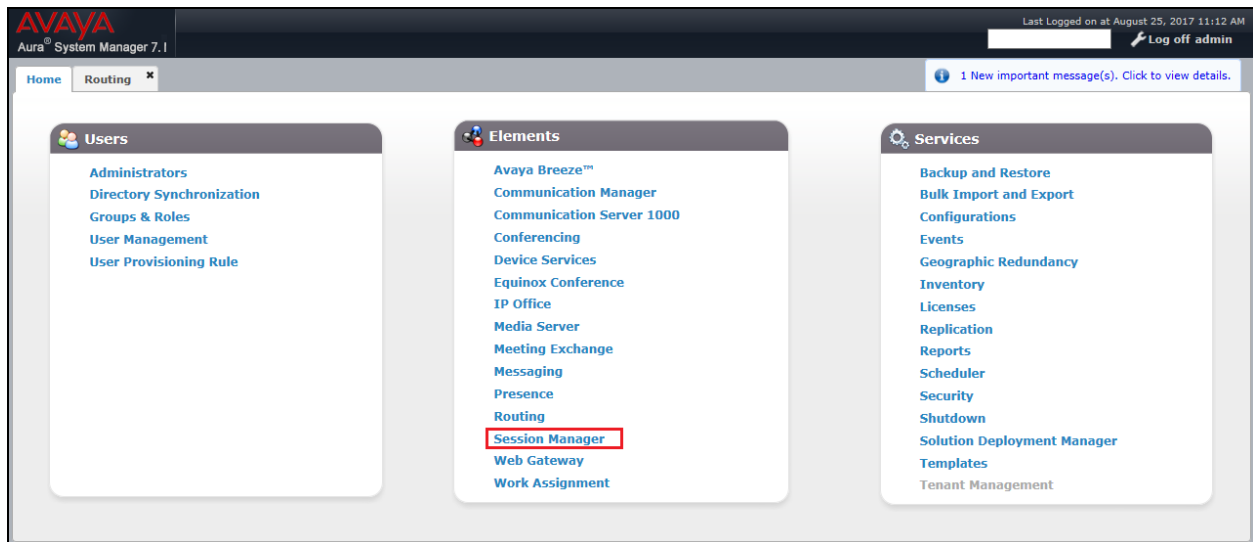
After any configuration changes are made a restart is required. To restart click on the exit button on the top right of the window (not shown) and use the Switchboard shortcut on the desktop (not shown) to start the application again.

10. Verification Steps

This section provides the tests that can be performed to verify correct configuration of Avaya and Enghouse Interactive solution.

10.1. Verify the SIP connection on Session Manager

Log in to System Manager as per **Section 8**. Once logged in, the following screen is shown where Session Manager is chosen as highlighted below.



Select **System Status** → **SIP Entity Monitoring** from the left window and select the **Avaya Media Server** SIP Entity from the main window. Both the connection to the CS1000 MAS and the CS1000 can be checked.

The screenshot shows the 'SIP Entity Link Monitoring Status Summary' page. The left sidebar has 'SIP Entity Monitoring' highlighted under 'System Status'. The main content area shows a summary of monitoring status for all Session Manager instances. A table lists monitored entities with columns for Session Manager, Type, and various status counts (Down, Partially Up, Up, Not Monitored, Deny, Total). Below this, there is a section for 'All Monitored SIP Entities' listing specific entities like CS1000 MAS and CS1KPG1.

SIP Entity Link Monitoring Status Summary

This page provides a summary of Session Manager SIP entity link monitoring status.

SIP Entities Status for All Monitoring Session Manager Instances

Run Monitor

Session Manager	Type	Monitored Entities						Total
		Down	Partially Up	Up	Not Monitored	Deny		
SM71vmppg	Core	6	0	4	0	0	10	

Select: All, None

All Monitored SIP Entities

Run Monitor

SIP Entity Name
CS1000 MAS
CS1KPG1

The **Conn. Status** for the Avaya Media Server SIP Entity shows as being **UP** and the **Reason Code** is displayed as **200 OK**.

The screenshot shows the 'SIP Entity, Entity Link Connection Status' page. It displays detailed connection status for all entity links from all Session Manager instances to a single SIP entity. A table lists entity links with columns for Session Manager Name, IP Address Family, SIP Entity Resolved IP, Port, Proto., Deny, Conn. Status, Reason Code, and Link Status. The table shows one item for SM71vmppg with a status of UP and Reason Code 200 OK.

SIP Entity, Entity Link Connection Status

This page displays detailed connection status for all entity links from all Session Manager instances to a single SIP entity.

All Entity Links to SIP Entity: CS1000 MAS

Summary View

Status Details for the selected Session Manager:

Session Manager Name	IP Address Family	SIP Entity Resolved IP	Port	Proto.	Deny	Conn. Status	Reason Code	Link Status
SM71vmppg	IPv4	10.10.40.104	5060	UDP	FALSE	UP	200 OK	UP

10.2. Verify Intuition Acclaim is registered with CS1000

Use the **stat ss** command in LD 117 to verify that Intuition Acclaim is registered with the CS1000. In the screen shot below one IP Attendant is registered.

ld 117

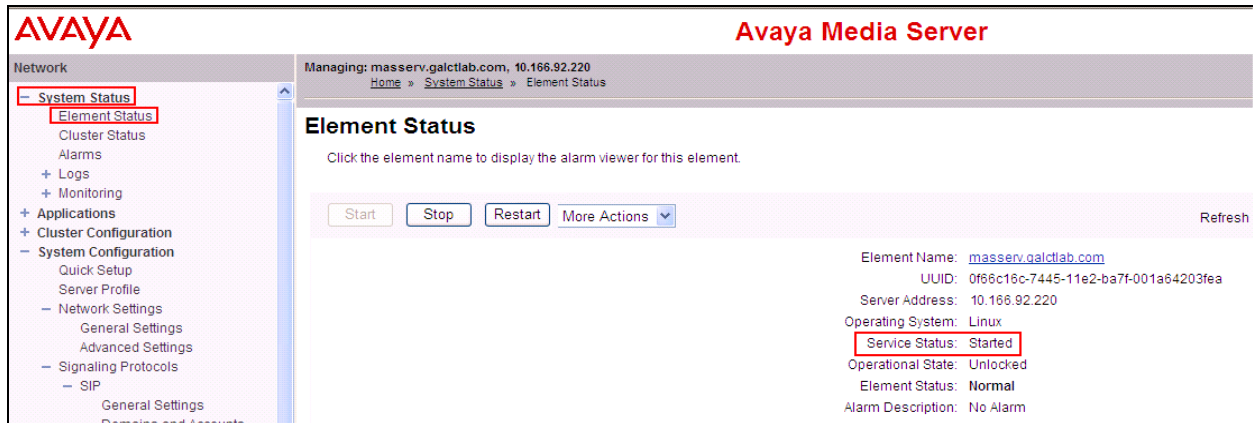
=> stat ss

```

NODE ELANIP          LDR  SRV                PBXLINK  HOSTNAME
ID
3    172.18.20.14    YES  Avaya CPPMv1          LINK UP   cores3.galctlab.com
  APPS:      LTPS      VTRK      IPCONF    IPTONE    IPMUS      IPANN      IPATTN
  PBXLINK DATE:  16/04/2013
  PBXLINK TIME:  13:16:41
  CONNECTID:     36f85540
  APPLICATION NODE ID:  3
  Sets: [reg - 00007] [busy - 00000] [dvla - 00000]
  VTRK: [reg - 00040] [busy - 00000]
  SIPL VTRK: [reg - 00000] [busy - 00000]
  SIGNALLING SERVER CAPACITY (SSRC): 4096
  IP Conference: [reg - 00000] [busy - 00000]
  IP Tones: [reg - 00000] [busy - 00000]
  IP Music: [reg - 00000] [busy - 00000]
  IP Announce: [reg - 00000] [busy - 00000]
  IP Attendant: [reg - 00001] [busy - 00000]
    Type: Avaya CPPMv1
    Location: 0 0 1
    Product Eng.Code: NTDW61BA0008
    Serial Number: NNTMG19XYWA0CPPM
    Memory Size: 2048 MB
    Disk Size 37 GB
```

10.3. Verify Avaya Media Server

To verify that the Avaya Media Server Service is started access the Media Server outlined in **Section 7**. Select **System Status** → **Element Status** and ensure that the **Service Status** is **Started**.

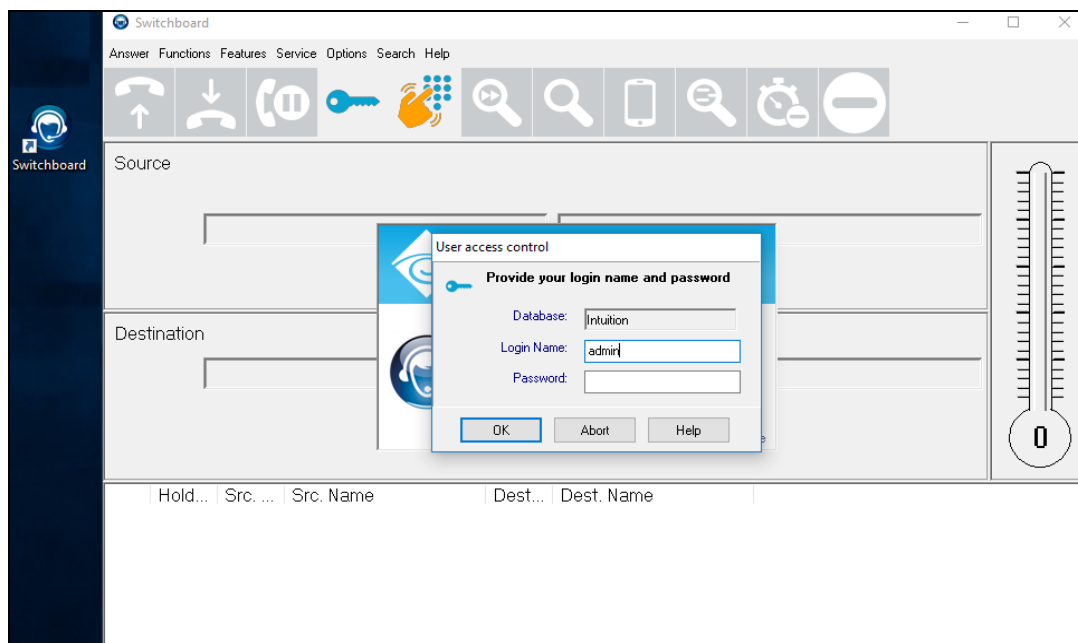


10.4. Verify Intuition Acclaim Switchboard

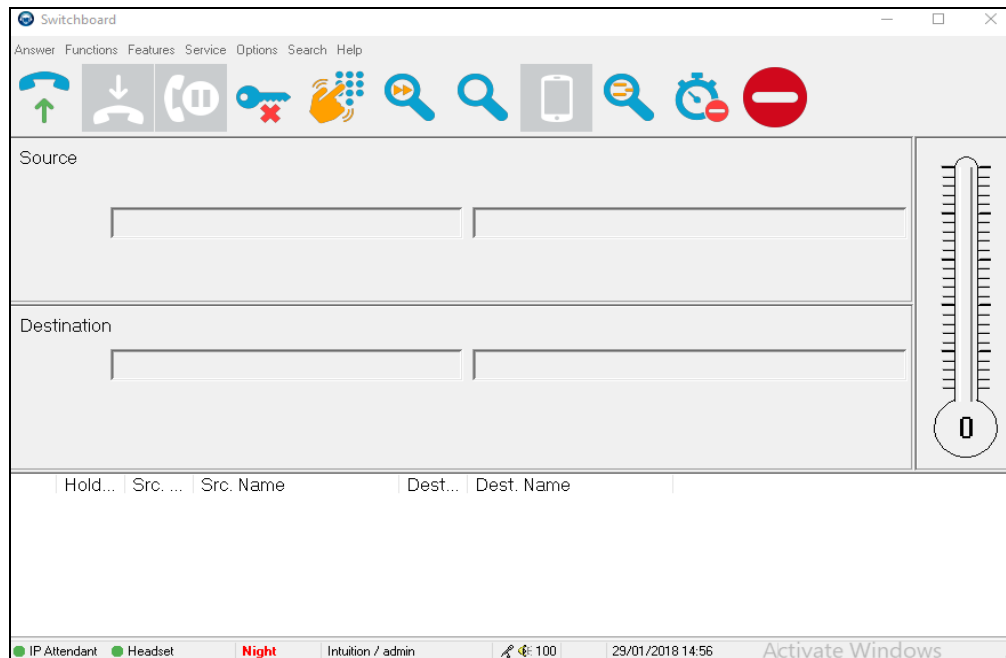
The following steps are taken to verify that the Intuition Acclaim Switchboard is in full working order.

10.4.1. Verify Intuition Acclaim Switchboard is registered

Verify that the status LED in the bottom left hand corner of the Switchboard is green to signify that Intuition Acclaim is registered. Open the Switchboard using the desktop shortcut and enter the appropriate credentials and click on OK.

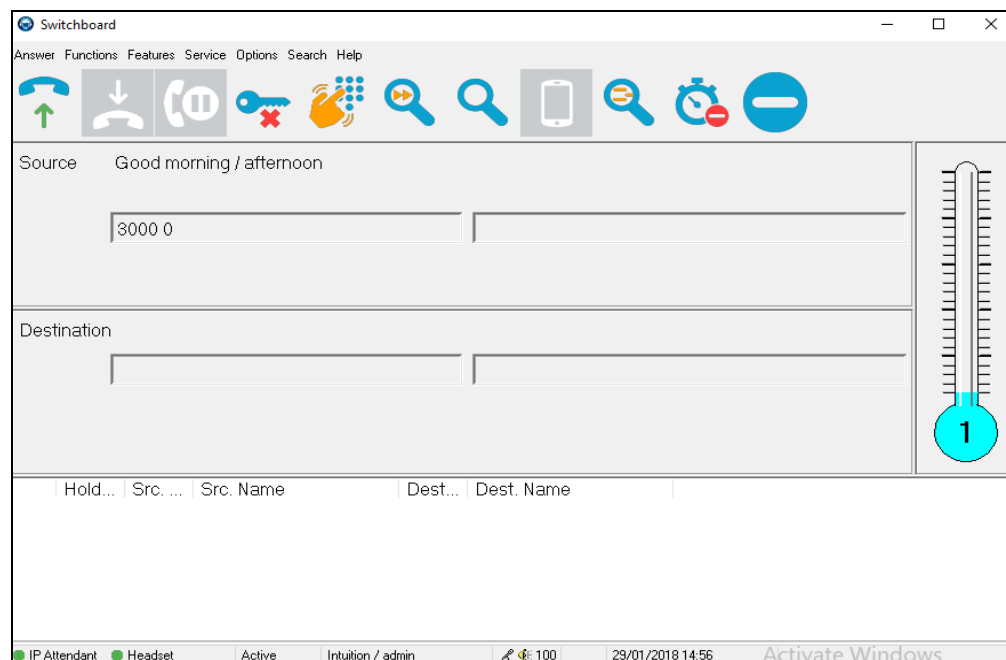


The following page should appear showing the Switchboard is registered as the lights at the bottom left of the screen are green. The Switchboard is in “night mode” and pressing the idle button (top right of the screen) will change the Switchboard to idle and ready to accept calls.

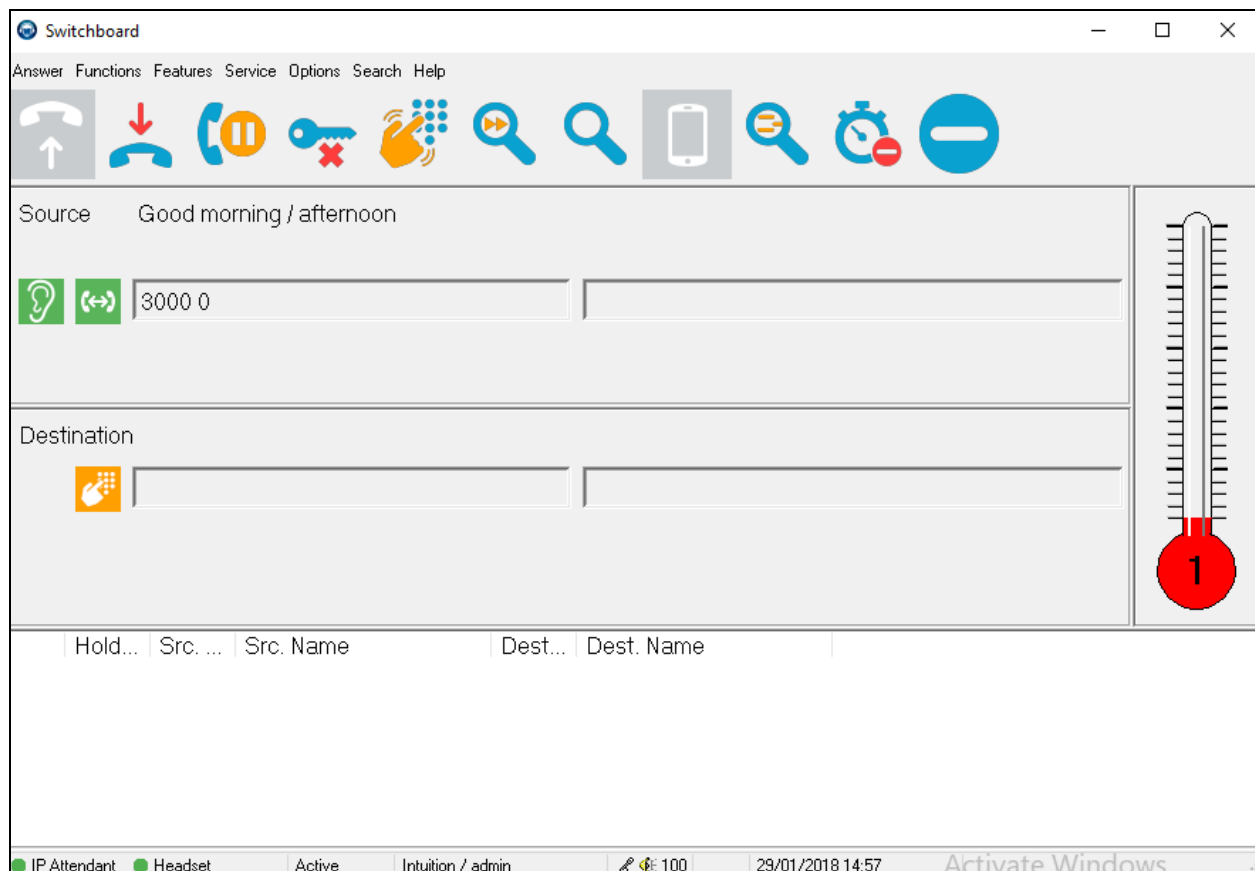


10.4.2. Verify Intuition Acclaim Switchboard can accept a call

Make a call to the Operator by dialling either the Attendant DN or the Listed Directory Number. The call will appear on the screen and can be answered by pressing the + key on the keyboard or using the icon at the top left of the screen.



Once the call is answered the operator is in conversation as shown below. Note that another call is waiting which is indicated on the thermometer on the right side of the Switchboard. The call can be transferred or placed on hold and the next call can be answered.



11. Conclusion

These Application Notes describe the interoperability of Intuition Acclaim V5.4 from Enghouse Interactive with Avaya Communication Server 1000 R7.6 using Avaya Aura® Session Manager R7.1 as a proxy server between the Avaya Communication Server 1000 IP Media Services and the Avaya Media Server R7.6. All test cases passed successfully with all observations noted in **Section 2.2**.

12. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information can be obtained from <http://support.avaya.com> or from your Avaya representative.

- [1] *Administering Avaya Aura® Session Manager, Release 7.1*
- [2] *Avaya Communication Server 1000 Linux Platform Base and Applications Installation and Commissioning, Document Number NN43001-315, Revision: 06.08, Jun 2016.*
- [3] *Avaya Communication Server 1000 Software Input Output Reference — Administration, Document Number NN43041-611, Revision: 06.05, Sept 2015*
- [4] *Avaya Communication Server 1000 Signaling Server IP Line Applications Fundamentals Document Number NN43001-125, Revision: 04.10, Jun 2016*

Product Documentation for Enghouse Interactive can be obtained through the following:

Phone: Monday to Friday 08:30-17:30 use +44 870 220 2205, opt1, opt 2

E-mail: support@datapulse.com

Appendix A

Avaya CS1000 R7.6 - Linux Patches

Product Release: 7.65.16.00						
In system patches: 9						
PATCH#	NAME	IN_SERVICE	DATE	SPECINS	TYPE	RPM
48	p31484_1	Yes	10/10/17	NO	FRU	cs1000-shared-general-7.65.16-00.i386
49	p33125_1	Yes	10/10/17	NO	FRU	cs1000-OS-1.00.00.00-00.noarch
50	p33274_1	Yes	10/10/17	YES	FRU	initscripts-8.45.25-1.el5.i386
51	p33384_1	Yes	10/10/17	NO	FRU	cs1000-OS-1.00.00.00-00.noarch
52	p33493_1	Yes	10/10/17	NO	FRU	cs1000-OS-1.00.00.00-00.noarch
53	p33557_1	Yes	10/10/17	YES	FRU	cs1000-OS-1.00.00.00-00.noarch
54	p33584_1	Yes	10/10/17	YES	FRU	cs1000-OS-1.00.00.00-00.noarch
55	p33673_1	Yes	10/10/17	NO	FRU	net-snmp-5.3.2.2-5.el5.i386
56	p33774_1	Yes	10/10/17	YES	FRU	cs1000-OS-1.00.00.00-00.noarch
In System service updates: 48						
PATCH#	IN_SERVICE	DATE	SPECINS	REMOVABLE	NAME	
0	Yes	10/10/17	YES	YES	cs1000-linuxbase-7.65.16.23-35.i386.000	
1	Yes	10/10/17	NO	YES	cs1000-Jboss-Quantum-7.65.16.23-12.i386.000	
2	Yes	10/10/17	YES	YES	cs1000-patchWeb-7.65.16.23-2.i386.000	
3	Yes	10/10/17	YES	YES	cs1000-dmWeb-7.65.16.23-5.i386.000	
4	Yes	10/10/17	YES	YES	avaya-cs1000-cnd-4.0.48-1.el5.i386.000	
5	Yes	10/10/17	NO	YES	bash-3.2-33.el5_11.4.i386.000	
6	Yes	10/10/17	YES	YES	cs1000-baseWeb-7.65.16.22-4.i386.000	
7	Yes	10/10/17	YES	YES	cs1000-bcc-7.65.16.23-19.i386.000	
8	Yes	10/10/17	NO	YES	cs1000-cppmUtil-7.65.16.23-4.i686.000	
9	Yes	10/10/17	YES	YES	cs1000-cs-7.65.P.100-03.i386.000	
10	Yes	10/10/17	NO	YES	cs1000-cs1000WebService 6-0-7.65.16.23-6.i386.000	
11	Yes	10/10/17	YES	YES	cs1000-csmWeb-7.65.16.23-2.i386.000	
12	Yes	10/10/17	YES	YES	cs1000-csoneksvrMgr-7.65.16.22-5.i386.000	
13	Yes	10/10/17	YES	YES	cs1000-csv-7.65.16.23-4.i386.000	
14	Yes	10/10/17	YES	YES	cs1000-dbcom-7.65.16.23-1.i386.000	
15	Yes	10/10/17	YES	YES	cs1000-emWebLocal 6-0-7.65.16.22-1.i386.000	
16	Yes	10/10/17	YES	YES	cs1000-emWeb 6-0-7.65.16.23-8.i386.000	
17	Yes	10/10/17	YES	YES	cs1000-ftprpkg-7.65.16.23-1.i386.000	
18	Yes	10/10/17	NO	YES	cs1000-gk-7.65.16.22-1.i386.000	
19	Yes	10/10/17	YES	YES	cs1000-ipsec-7.65.16.22-1.i386.000	
20	Yes	10/10/17	YES	YES	cs1000-mscAnnc-7.65.16.23-1.i386.000	
21	Yes	10/10/17	YES	YES	cs1000-mscAttn-7.65.16.23-15.i386.000	
22	Yes	10/10/17	YES	YES	cs1000-mscConf-7.65.16.23-1.i386.000	
23	Yes	10/10/17	YES	YES	cs1000-mscMusc-7.65.16.23-1.i386.000	
24	Yes	10/10/17	YES	YES	cs1000-mscTone-7.65.16.23-1.i386.000	
25	Yes	10/10/17	YES	YES	cs1000-nrsm-7.65.16.23-1.i386.000	
26	Yes	10/10/17	YES	YES	cs1000-oam-logging-7.65.16.23-1.i386.000	
27	Yes	10/10/17	NO	YES	cs1000-pd-7.65.16.23-1.i386.000	
28	Yes	10/10/17	NO	YES	cs1000-shared-carrrdtct-7.65.16.21-01.i386.000	
29	Yes	10/10/17	NO	YES	cs1000-shared-omm-7.65.16.21-2.i386.000	
30	Yes	10/10/17	YES	YES	cs1000-shared-pbx-7.65.16.23-3.i386.000	
31	Yes	10/10/17	NO	YES	cs1000-shared-tpselect-7.65.16.23-1.i386.000	
32	Yes	10/10/17	YES	YES	cs1000-shared-xmsg-7.65.16.22-1.i386.000	
33	Yes	10/10/17	NO	YES	cs1000-snmp-7.65.16.21-00.i686.000	
34	Yes	10/10/17	NO	YES	cs1000-sps-7.65.16.23-1.i386.000	
35	Yes	10/10/17	YES	YES	cs1000-tps-7.65.16.23-21.i386.000	
36	Yes	10/10/17	YES	YES	cs1000-vtrk-7.65.16.23-123.i386.000	
37	Yes	10/10/17	NO	YES	freetype-2.2.1-32.el5_9.1.i386.000	
38	Yes	10/10/17	YES	YES	jdk-1.6.0_151-fcs.i586.000	
39	Yes	10/10/17	YES	YES	kernel-2.6.18-419.el5.i686.000	
40	Yes	10/10/17	NO	YES	libssh2-1.4.2-2.el5_7.1.i386.000	
41	Yes	10/10/17	NO	YES	libxml2-2.6.26-2.1.25.el5_11.i386.000	
42	Yes	10/10/17	NO	YES	libxml2-python-2.6.26-2.1.25.el5_11.i386.000	
43	Yes	10/10/17	NO	YES	openldap-2.3.43-29.el5_11.i386.000	
44	Yes	10/10/17	YES	YES	openssl-0.9.8e-40.el5_11.i386.000	
45	Yes	10/10/17	NO	YES	pass_harden-7.65.16.23-2.i386.000	
46	Yes	10/10/17	NO	YES	pcap-7.65.16.23-1.i386.000	
47	Yes	10/10/17	NO	yes	tzdata-2016g-2.el5.i386.000	

Avaya CS1000 R7.6 - Call Server Patches

VERSION 4121
RELEASE 7
ISSUE 65 P +
DepList 1: core Issue: 01 (created: 2016-12-20 03:51:22 (est))

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

Avaya Media Server Patches

In System service updates: 15					
PATCH#	IN_SERVICE	DATE	SPECINS	REMOVABLE	NAME
0	Yes	25/01/18	NO	YES	tzdata-2015a-1.el5.x86_64.000
1	Yes	25/01/18	YES	YES	cs1000-linuxbase-amsx64-7.65.16.26-5.i386.000
2	Yes	25/01/18	NO	YES	autofs-5.0.1-0.rc2.184.el5.x86_64.000
3	Yes	25/01/18	NO	YES	base_harden-amsx64-7.65.16.26-1.i386.000
4	Yes	25/01/18	NO	YES	bash-3.2-33.el5_11.4.x86_64.000
5	Yes	25/01/18	NO	YES	cs1000-cppmUtil-amsx64-7.65.16.26-1.i686.000
6	Yes	25/01/18	YES	YES	cs1000-mas-amsx64-7.65.16.26-6.i386.000
7	Yes	25/01/18	NO	YES	hwdata-0.213.30-1.el5.noarch.000
8	Yes	25/01/18	YES	YES	initscripts-8.45.45-1.el5.x86_64.000
9	Yes	25/01/18	YES	YES	kernel-2.6.18-419.el5.x86_64.000
10	Yes	25/01/18	NO	YES	ksh-20100621-24.el5_11.x86_64.000
11	Yes	25/01/18	NO	YES	ntp-4.2.2p1-18.el5_11.x86_64.000
12	Yes	25/01/18	NO	YES	rsync-3.0.6-6.el5_11.x86_64.000
13	Yes	25/01/18	NO	YES	sysstat-7.0.2-13.el5.x86_64.000
14	Yes	25/01/18	NO	YES	udev-095-14.32.el5.x86_64.000

Appendix C

Avaya CS1000 Route for SIP Trunk Gateway

```
TYPE RDB
CUST 00
ROUT 22
DES SIPTRK
TKTP TIE
M911P NO
ESN NO
RPA NO
CNVT NO
SAT NO
RCLS EXT
VTRK YES
ZONE 00066
PCID SIP
CRID YES
SBWM NO
NODE 111
DTRK NO
ISDN YES
    MODE ISLD
    DCH 1
    IFC SL1
    PNI 00001
    NCNA YES
    NCRD YES
    TRO YES
    FALT NO
    CTYP UKWN
    INAC NO
    ISAR NO
    DAPC NO
MBXR NO
MBXOT NPA
MBXT 0
PTYP ATT
CNDP UKWN
AUTO NO
DNIS YES
NDGT 4
DDLY NO
DCDR YES
ICOG IAO
SRCH LIN
TRMB YES
STEP
ACOD 8022
TCPP NO
PII NO
AUXP NO
TARG
CLEN 1
BILN NO
OABS
INST
IDC YES
DCNO 0
```



```

NDNO 0 *
DNAM NO
ANTK
SIGO STD
STYP SDAT
MFC NO
ICIS YES

PAGE 002

OGIS YES
PTUT 0
TIMR ICF 1920
      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

      IENB 5
      TFD 0
      RTD 12
      VSS 0
      VGD 6
      EESD 1024
SST 5 0
DTD NO
SCDT NO
2 DT NO
NEDC ORG
FEDC ORG
CPDC NO
DLTN NO
HOLD 02 02 40
SEIZ 02 02
SVFL 02 02
DRNG NO
CDR YES
INC YES
LAST YES
QREC YES
OAL YES
AIA YES
OAN YES
OPD NO
NDP EXC 0
NATL YES
SSL
CFWR NO
IDOP NO
VRAT NO
MUS NO

```

```
PANS YES
MANO NO
FRL 0 0
FRL 1 0
FRL 2 0
FRL 3 0
FRL 4 0
FRL 5 0
FRL 6 0
FRL 7 0
OHQ NO
```

```
PAGE 003
```

```
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 8022 22
ATRR NO
TRRL NO
SGRP 0
CCBA NO
ARDN NO
CTBL 0
ANIE 0
CAC_CIS 3
AACR NO
```

Avaya CS1000 D-Channel for SIP Trunk Gateway

```
ADAN      DCH 1
  CTYP DCIP
  DES  SIPL
  USR  ISLD
  ISLM 4000
  SSRC 3700
  OTBF 32
  NASA YES
  IFC  SL1
  CNEG 1
  RLS  ID  7
  RCAP
  MBGA NO
  H323
    OVLN NO
    OVLS NO
```

Appendix D

Avaya Media Server License Details

AVAYA

Network

+ System Status

+ Applications

+ Cluster Configuration

+ System Configuration

- Licensing

General Settings

Monitoring

Server Status

Utilization Threshold

Advanced Settings

+ Tools

Managing: masserv.galctlab.com, 10.166.92.220

[Home](#) » [Licensing](#) » General Settings

General Settings

Licensing :

License Server

rebLLbZnEwSW+L/8fB4JBQEDAs61urK2tWS

qYn/ydNdGhvJr6rXj8HASAgcMDg+Pjw==

inst::auth 1.0 00:1a:64:20:3f:eb

(1) 360 secs

Replace License Keys :

Validate

Changing this field will require the system to be restarted to take effect.

License Details

Feature	Release	MAC Address	Available	Expiration Date(BST)
Media Server Instances	1.0	0:1a:64:20:3feb	0	
cs1krfc4240::sess	1.0	0:1a:64:20:3feb	30	

©2018 Avaya Inc. All Rights Reserved.

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

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