



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Configuring Aurora Innovation TeleQ with Avaya Communication Server 1000E 7.6 via Avaya Session Manager - Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for Aurora Innovation TeleQ with Avaya Communication Server 1000E 7.6 via Avaya Session Manager.

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

TeleQ from Aurora Innovation is primarily used in the Healthcare sector. TeleQ is a Client/Server Appointment Management Solution. TeleQ allows patients to call their Health Care provider and speak to an agent, leave a Voice Mail, and book a Call Back to a number and at a time of their choice. The Agents can receive inbound calls, listen to voice mails and call back patients. The TeleQ client communicates with the Private Branch Exchange through an Asterisk Server. The TeleQ server includes its own Voice Mail system.

**Note:** Aurora Innovation supply, install and configure their solution for the end customer directly or through qualified partners, In line with Aurora Innovation's request the configuration of TeleQ Client/Server and Asterisk server is not required to be part of this Application Note.

## 2. General Test Approach and Test Results

The general test approach was to configure TeleQ to communicate with the Avaya Communication Server 1000E (Avaya CS 1000E) as implemented on a customer's premises using an Avaya Aura<sup>®</sup> Session Manager (Session Manager). Testing focused on verifying that TeleQ registered with the Session Manager and all features 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.

### 2.1. Interoperability Compliance Testing

The testing included:

- Verification of connectivity between:  
Avaya CS 1000E and TeleQ Server via Session Manager
- Inbound to the TeleQ queue number
- Inbound calls to Voice Mail
- TeleQ Agent answers calls from the queue
- Inbound calls requiring call back (ensuring DTMF works)
- TeleQ agents retrieving Voice mails
- TeleQ Agents making outbound calls direct to patients
- TeleQ Agents making outbound calls from the call back database

## 2.2. Test Results

Tests were performed to insure full interoperability of TeleQ and Avaya CS 1000E solution. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully.

## 2.3. Support

Technical support from Aurora Innovation can be obtained through the following:

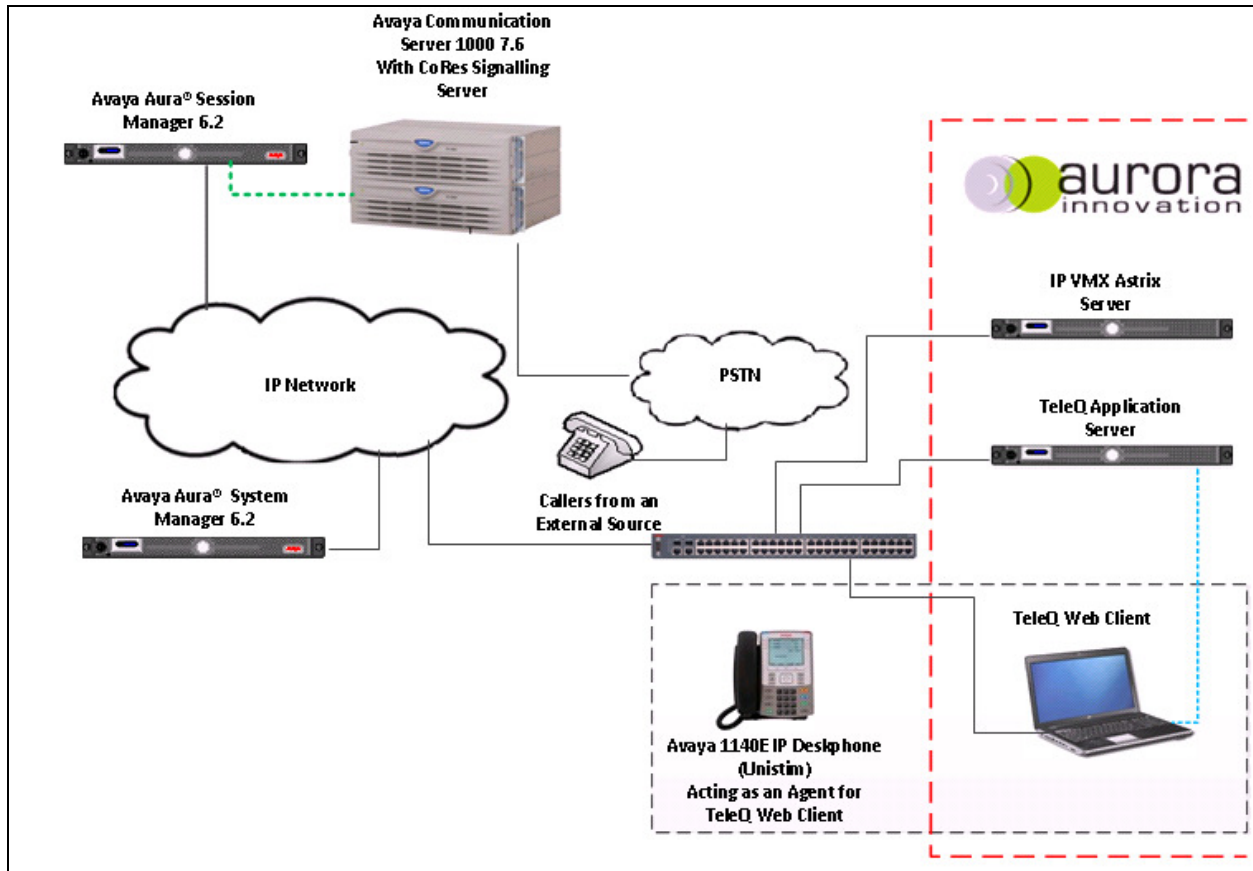
Email: [support@ain.se](mailto:support@ain.se)

Web: [www.ain.se](http://www.ain.se)

Phone: +4618194455

### 3. Reference Configuration

**Figure 1** illustrates the network topology used during compliance testing. The Avaya solution consists of an Avaya CS 1000E CoRes, and a Session Manager. An Avaya Aura<sup>®</sup> System Manager was used to manage the Session manager and access the Avaya CS 1000E Element Manager. A SIP Trunk was configured between the Session Manager and the Asterisk server. Communication between the TeleQ client and the Avaya CS 1000E was via the TeleQ Application server and Asterisk Server. On the Avaya CS 1000E a Distant steering Code (DSC) was configured to route calls to the Session Manager which in turn were routed to the Asterisk server. Calls to the TeleQ queue were then routed to the TeleQ application server via the Asterisk server. Calls required to be answered by an agent were routed back to the Avaya CS 1000E and answered on an Avaya 1140E Deskphone. Outbound calls from the TeleQ Agent were performed by the TeleQ application server calling the Agent Deskphone and then also calling the external number which was then put in conference. External calls were made using a simulated PSTN.



**Figure 1:** Avaya CS 1000E and TeleQ Reference Configuration

## 4. Equipment and Software Validated

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

Avaya Equipment	Software / Firmware Version
Call Processor Pentium Mobile (CPPM) NTDW61BA Avaya Media Gateway NTDW60BA	Avaya Communication Server 1000E R7.6 FPGA AA18
Avaya Media Gateway	H/W NTDW60 S/W FPGA AA18
Avaya S8800 Server running Avaya Aura® System Manager	Version 6.2.0 Build 6.2.0.0.15669-6.2.12.9 S/W Update Revision No: 6.2.12.1.1822
IBM System x3350 running Avaya Aura® Session Manager	Version 6.2.0 Build 6.2.0.0.6201303-6.2.0.620119
Avaya 1100 series IP Telephones • 1140e	0625C8A (UniStim 5.0) SIP FW 04.00.04.00.bin
Aurora Innovation Equipment	Software / Firmware Version
IP VMX Astrix Server	Version 11.3
TeleQ Application server	Version 5
TeleQ Web client	Version 5

## 5. Configure Avaya Communication Server 1000E

The configuration operations illustrated in this section were performed using terminal access to the Avaya CS 1000E over a telnet session. It is implied a working system is already in place, including a Route (Rout 20) and D-Channel (DCH 66). For all other provisioning information such as Installation and Configuration, please refer to the product documentation in **Section 11. Appendix A** has a list of all Avaya CS 1000E patches, deplist and service packs loaded on the system. The configuration operations described in this section relate to configuring a Dialling Plan (The configuration details in this section relate to the configuration used during compliance testing)

**Note:** Only the unique prompts as shown in the screen captures below, all other inputs can be left at default.

## 5.1. Configure Dialling Plan

To route calls to the TeleQ Application server a dialling plan is required. The numbers configured are routed to the Session Manager, where a Dialling Pattern (see **Section 7.5**) is configured to route the calls to the TeleQ queue number on the TeleQ Application server. There are a number of ways to setup a dialling plan. For compliance testing a Coordinated Dialling Plan (CDP) was used.

### 5.1.1. Create a Route List Index

In order to create a CDP a Route List Index (RLI) in overlay 86 is required. Use the **NEW** command in **LD 86** to create a **RLI**.

**Note:** Rout 20 was used.

#### LD 86

Prompt	Response	Description
>LD 86	Enter Overlay 86	
REQ	NEW	Create New
CUST	0	Customer Number as defined in LD15
FEAT	RLB	Route list Block
TYPE	RLI	Route list Index
RLI	37	Route list Index number
ENTR	0	First entry for the RLI
ROUT	20	Enter the route number

### 5.1.2. Create a Coordinated Dialling Plan

Use the **NEW** command in **LD 87** to create a CDP entry for TeleQ queue number and TeleQ agent. In the example below the **DSC is 5015 (TeleQ queue number)**, **FLEN is 4** and the **RLI is 37**. The TeleQ Agent number 265013 was also configured the same way.

**Note:** The RLI number used was created in **Section 5.1.1**.

#### LD 87

Prompt	Response	Description
>	LD 87	Enter Overlay 87
REQ	NEW	Create new
CUST	0	Customer Number as defined in LD15
FEAT	CDP	Coordinated dialling plan
TYPE	DSC	Distance Steering code
DSC	5015	Distant Steering code
FLEN	4	Flexible Length number of digits
RLI	37	Route list index Number

## 6. Configure Virtual Trunk Gateway

The Virtual Trunk Gateway on the Signalling Server needs to be configured to route calls to the Session Manager. It is implied that the Signalling Server is already in place, and a Node is configured and is part of the security framework. The Virtual Trunk Gateway is configured using the CS1000 Element Manager WEB interface accessed via a link from System Manager → UCM → Elements (not shown) or UCM natively.

Once the CS 1000 Element Manager page opens navigate to **IP Network → Nodes: Services, Media Cards**.

The screenshot shows the Avaya CS1000 Element Manager interface. The left sidebar contains a navigation menu with the following items: UCM Network Services, Home, Links, Virtual Terminals, System, Alarms, Maintenance, Core Equipment, Peripheral Equipment, IP Network (highlighted with a red box), Nodes: Servers, Media Cards (highlighted with a red box), Maintenance and Reports, Media Gateways, Zones, and Host and Route Tables. The main content area displays the 'System Overview' for the system managed at 172.18.20.14 by user admin2. It shows the IP Address as 172.18.20.14, Type as Avaya Communication Server 1000E CPPM Linux, Version as 4121, and Release as 750 Q +.

Once the **IP Telephony Nodes** page opens click on the appropriate node (During compliance testing node 3 was used).

The screenshot shows the 'IP Telephony Nodes' page in the Avaya CS1000 Element Manager. The left sidebar is the same as the previous screenshot, with 'IP Network' and 'Nodes: Servers, Media Cards' highlighted. The main content area shows the 'IP Telephony Nodes' section with a message: 'Click the Node ID to view or edit its properties.' Below this are buttons for 'Add...', 'Import...', 'Export...', and 'Delete', along with 'Print' and 'Refresh' links. A table lists the nodes:

Node ID	Components	Enabled Applications	ELAN IP	Node/TLAN IPv4	Node/TLAN IPv6	Status
3	1	LTPS, PD, IP Media Services, Gateway ( SIPGw, H323Gw )		10.166.92.219		Synchronized

Below the table, there are checkboxes for 'Show: Nodes' (checked), 'Component servers and cards' (unchecked), and 'IPv6 address' (checked).

Once the **Node Details** page opens scroll down using the vertical scroll bar on the right side of the page and click on **Gateway (SIPGw & H323Gw)**.

Element Manager

**AVAYA** CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2  
System » IP Network » IP Telephony Nodes » Node Details

**Node Details (ID: 3 - LTPS, PD, IP Media Services, Gateway ( SIPGw, H323Gw ))**

Subnet mask: 255.255.255.128 \* Subnet mask: 255.255.255.224 \*  
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 \(SIPGw & H323Gw\)](#)**
- [Personal Directories \(PD\)](#)
- [Presence Publisher](#)
- [IP Media Services](#)

\* Required Value.

Save Cancel

Scroll down →



Once the **Virtual Trunk Gateway Configuration Details** page opens, scroll down using the vertical scroll bar on the right side of the page to **Proxy Or Redirect Server (Proxy Server route 1)** and enter the following:

- **Primary TLAN IP address** Enter the IP address of the Session Manager (10.166.92.217)
- **Port** Enter **5060**
- **Transport protocol** Select **UDP** from the dropdown box
- **Options** Click the **Support registration** check box

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

Element Manager

**AVAYA** CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2  
System » IP Network » IP Telephony Nodes » Node Details » Virtual Trunk Gateway Configuration

**Node ID: 3 - Virtual Trunk Gateway Configuration Details**

General | SIP Gateway Settings | SIP Gateway Services | H.323 Gateway Settings

transport protocol: TCP

**Proxy Or Redirect Server:**

**Proxy Server Route 1:**

Primary TLAN IP address: 10.166.92.217  
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port: 5060 (1 - 65535)

Transport protocol: UDP

Options: ☒ Support registration  
☐ Primary CDS proxy

Secondary TLAN IP address: 0.0.0.0  
The IP address can have either IPv4 or IPv6 format based on the value of "TLAN address type"

Port: 5060 (1 - 65535)

Transport protocol: TCP

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

**Save** Cancel

Once the Virtual Trunk Gateway Configuration is saved the Node must also be saved. On the **Node Details** page click on the **Save** button.

Element Manager

**AVAYA** CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2  
System » IP Network » IP Telephony Nodes » Node Details

**Node Details (ID: 3 - LTPS, PD, IP Media Services, Gateway ( SIPGw, H323Gw ))**

Node ID:  \* (0-9999)

Call server IP address:  \* TLAN address type: ☒ IPv4 only  
☐ IPv4 and IPv6

**Embedded LAN (ELAN)** **Telephony LAN (TLAN)**

Gateway IP address:  \* Node IPv4 address:  \*

Subnet mask:  \* Subnet mask:  \*

Node IPv6 address:

\* Required Value.

**Save** **Cancel**

On the **Node Saved** page click on the **Transfer Now** button.

Element Manager

**AVAYA** CS1000 Element Manager

Managing: 172.18.20.14 Username: admin2  
System » IP Network » IP Telephony Nodes » Node Saved

**Node Saved**

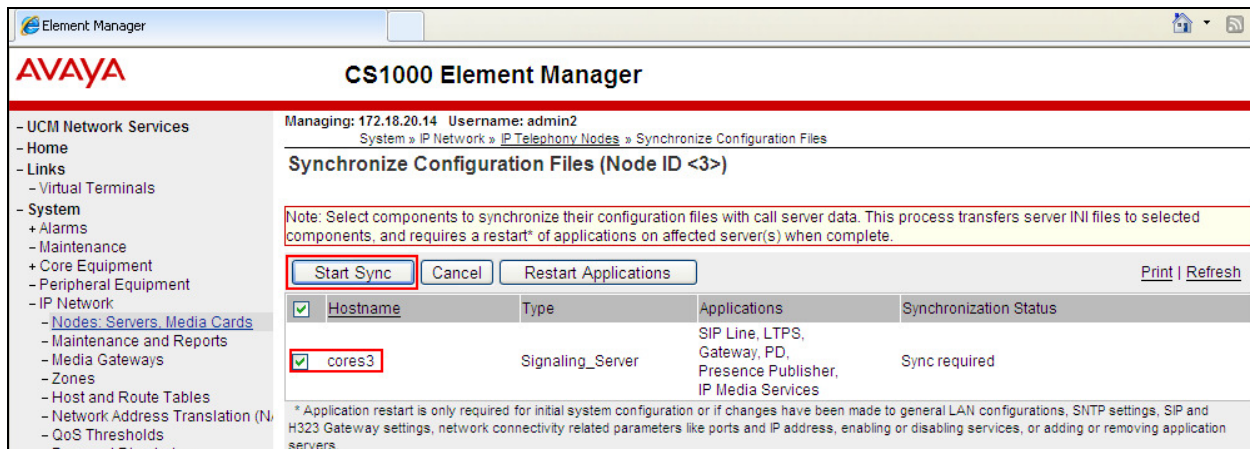
Node ID: 3 has been saved on the call server.

The new configuration must also be transferred to associated servers and media cards.

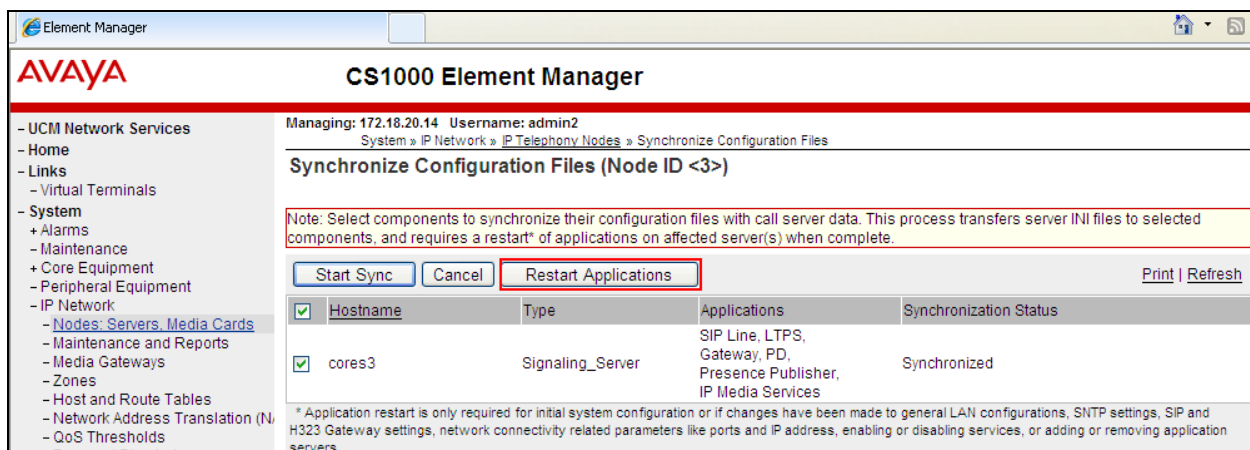
**Transfer Now...** You will be given an option to select individual servers, or transfer to all.

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

On the **Synchronize Configuration Files** page select the appropriate Signalling Server and click on the **Start Sync** button.



Once the synchronization is complete the applications must be restarted. Click on the **Restart Applications** button.



## 7. Configuring Avaya Aura® Session Manager

A number of configurations are required to enable the Avaya CS 1000E to route calls to TeleQ via the Asterisk server and vice versa. All configurations of the Session Manager are preformed using System Manager. The configuration operations described in this section can be summarized as follows:

- Logging on to System Manager
- Create Asterisk Server as a SIP Entity
- Create an Entity Link for Asterisk Server
- Create a Routing Policy for Asterisk Server
- Create a Dial Pattern for Asterisk Server

**Note:** It is implied a working system is already in place. During Compliance testing a SIP Entity and an Entity Link for the Avaya CS 1000E were created. Also a Routing Policy and a Dial

Pattern to route calls to the Avaya CS 1000E were created and are outside the scope of this Application Note.

## 7.1. Logging on to Avaya Aura® System Manager

Log on by accessing the browser-based GUI of System Manager, using the URL

“http://<fqdn>/SMGR” or “http://<ip-address>/SMGR”, where:

“<fqdn>” is the fully qualified domain name of the Avaya Aura® System Manager or the “<ipaddress>” is the IP address of Avaya Aura® System Manager.

Once the System Manager Web page opens Log in with the appropriate credentials.

System Manager

AVAYA Avaya Aura® System Manager 6.2

Home / Log On

### Log On

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:

Log On Clear

## 7.2. Create Asterisk Server as a SIP Entity

Once logged in select the **Routing** Link under the **Elements** column.

Avaya Aura® System Manager 6.2

Last Logged on at April 17, 2013 9:00 AM  
[Help](#) | [About](#) | [Change Password](#) | [Log off admin](#)

**Users**

**Administrators**  
Manage Administrative Users

**Directory Synchronization**  
Synchronize users with the enterprise directory

**Groups & Roles**  
Manage groups, roles and assign roles to users

**UCM Roles**  
Manage UCM Roles, assign roles to users

**User Management**  
Manage users, shared user resources and provision users

**Elements**

**B5800 Branch Gateway**  
Manage B5800 Branch Gateway 6.2 elements

**Communication Manager**  
Manage Communication Manager 5.2 and higher elements

**Conferencing**  
Manage Conferencing Multimedia Server objects

**Inventory**  
Manage, discover, and navigate to elements, update element software

**Meeting Exchange**  
Manage Meeting Exchange and Avaya Aura Conferencing 6.0 elements

**Messaging**  
Manage Avaya Aura Messaging, Communication Manager Messaging, and Modular Messaging

**Presence**  
Presence

**Routing**  
Network Routing Policy

**Session Manager**  
Session Manager Element Manager

**SIP AS 8.1**  
SIP AS 8.1

**Services**

**Backup and Restore**  
Backup and restore System Manager database

**Bulk Import and Export**  
Manage Bulk Import and Export of Users, User Global Settings, Roles, Elements and others

**Configurations**  
Manage system wide configurations

**Events**  
Manage alarms, view and harvest logs

**Licenses**  
View and configure licenses

**Replication**  
Track data replication nodes, repair replication nodes

**Scheduler**  
Schedule, track, cancel, update and delete jobs

**Security**  
Manage Security Certificates

**Templates**  
Manage Templates for Communication Manager, Messaging System and B5800 Branch Gateway elements

**UCM Services**  
Manage UCM applications and navigation such as CS1000 deployment, patching, ISSS and SNMP

A SIP Entity must be added for the Asterisk server. To add a SIP Entity, select **SIP Entities** on the left panel menu and then click on the **New** button (not shown).

**Note:** A SIP Entity was already configured for the Avaya CS 1000E and was called **cores3**.

Enter the following for the Asterisk SIP Entity:

Under **General**:

- **Name** Enter an informative name (e.g., **Astrix (Teleq)**)
- **FQDN or IP Address** enter the IP address of the signalling interface of the Asterisk server
- **Type** Select **SIP Trunk** from the dropdown box
- **Location** Select an appropriate **location** from the dropdown box, **Session\_Location** was used during compliance testing
- **Time Zone** Select Time zone for this location from the dropdown box
- **SIP Timer** Enter **4**

Once the correct information is entered click the **Commit** Button

**Note:** During compliance testing **Adaptation** was left blank.

AVAYA Avaya Aura® System Manager 6.2

Last Logged on at April 17, 2013 9:00 AM  
Help | About | Change Password | Log off admin

Routing x Home

Home / Elements / Routing / SIP Entities

SIP Entity Details

General

\* Name: Astrix (Teleq)

\* FQDN or IP Address: 10.10.60.214

Type: SIP Trunk

Notes:

Adaptation:

Location: Session\_Location

Time Zone: Europe/Dublin

Override Port & Transport with DNS SRV: ☐

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

Credential name:

Call Detail Recording: egress

Commit Cancel

### 7.3. Create an Entity Link for Asterisk Server

The SIP trunk between the Session Manager and the Asterisk Server requires an Entity Link. To add an Entity Link, select **Entity Links** on the left panel menu and click on the **New** button (Not shown) Enter the following:

- **Name** An informative name, (e.g. **Session\_Manager\_Astrix**)
- **SIP Entity 1** Select **Session Manager** from the **SIP Entity 1** dropdown box
- **Protocol** Select **UDP** from the Protocol drop down box
- **Port** Enter **5060**
- **SIP Entity 2** Select **Astrix (Teleq)** from the **SIP Entity 2** dropdown box (configured in **Section 7.2**)
- **Port** Enter **5060** as the Port
- **Connection Policy** Check the **Trusted** check box.

Click **Commit** to save changes. The following screen shows the Entity Links used.

The screenshot shows the Avaya Aura System Manager 6.2 interface. The left sidebar contains a menu with options: Routing, Domains, Locations, Adaptations, SIP Entities, Entity Links (highlighted), Time Ranges, Routing Policies, Dial Patterns, Regular Expressions, and Defaults. The main content area is titled 'Home / Elements / Routing / Entity Links'. It shows a table with one entity link configuration. The table has columns: Name, SIP Entity 1, Protocol, Port, SIP Entity 2, Port, Connection Policy, and Notes. The row shows: \* Session\_Manager\_Ad, \* Session\_Manager, UDP, \* 5060, \* Astrix (Teleq), \* 5060, Trusted, and an empty Notes field. There are 'Commit' and 'Cancel' buttons at the bottom right. A red box highlights the table row and the bottom 'Commit' button.

Name	SIP Entity 1	Protocol	Port	SIP Entity 2	Port	Connection Policy	Notes
* Session_Manager_Ad	* Session_Manager	UDP	* 5060	* Astrix (Teleq)	* 5060	Trusted	

## 7.4. Create a Routing Policy for Asterisk Server

Create routing policies to direct calls to the TeleQ server via the Asterisk server. To add a routing policy, select **Routing Policies** on the left panel menu and then click on the **New** button (not shown). In **Routing Policy Details** enter an informative name in the **Name** field (example, to **Astrix**) and enter **0** in the **Retries** field. In **SIP Entity as Destination**, Click **Select**

The screenshot shows the Avaya Aura System Manager 6.2 interface. The left sidebar contains a menu with 'Routing Policies' highlighted. The main content area is titled 'Routing Policy Details' and has a 'General' tab selected. The 'Name' field is set to 'To Astrix', 'Retries' is set to '0', and 'Disabled' is unchecked. The 'SIP Entity as Destination' section has a 'Select' button highlighted. At the bottom, there is a table with columns: Name, FQDN or IP Address, Type, and Notes.

Name	FQDN or IP Address	Type	Notes
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Once the SIP Entity List screen opens, check the **Astrix (Teleq)** radio button. Click on the **Select** button to confirm the chosen options and then return to the **Routing Policies Details** screen and select **Commit** button (Not shown) to save.

The screenshot shows the Avaya Aura System Manager 6.2 interface with the 'SIP Entity List' screen. The 'SIP Entities' section shows a table with 6 items. The first item, 'Astrix (Teleq)', is selected with a radio button. The table has columns: Name, FQDN or IP Address, Type, and Notes.

Name	FQDN or IP Address	Type	Notes
Astrix (Teleq)	10.10.60.214	SIP Trunk	



## 7.5. Create a Dial Pattern for Asterisk Server

A dial pattern must be created on the Session Manager to route calls to and from the Asterisk server. During testing 2 numbers were used 5015 (used as the TeleQ queue number) and 265013 (used as the TeleQ Agent number). The example below only shows 5015, the remaining numbers are created the same way. To configure the Dial Pattern to route calls to the TeleQ application server via the Asterisk server, select **Dial Patterns** on the left panel menu and then click on the **New** button (not shown).

Under **General** carry out the following for each number

- **Pattern** Enter 5015
- **Min** Enter 4 as the minimum length of dialed number
- **Max** Enter 4 as the maximum length of dialed number
- **SIP Domain** Select **ALL** from the drop down box

Click the **Add** button in **Originating Locations and Routing Policies**.

Avaya Aura® System Manager 6.2

Last Logged on at April 17, 2013 9:00 AM

Help | About | Change Password | Log off admin

Routing x Home

Home / Elements / Routing / Dial Patterns

Dial Pattern Details

General

\* Pattern: 5015

\* Min: 4

\* Max: 4

Emergency Call: ☐

Emergency Priority:

Emergency Type:

SIP Domain: -ALL-

Notes:

Originating Locations and Routing Policies

Add Remove

0 Items Refresh

Filter: Enable

	Originating Location Name	Originating Location Notes	Routing Policy Name	Rank	Routing Policy Disabled	Routing Policy Destination	Routing Policy Notes
--	---------------------------	----------------------------	---------------------	------	-------------------------	----------------------------	----------------------

In **Originating Location** check the **Session\_Location** check box. Under **Routing Policies** check the **To Astrix** check box. Click on the **Select** button to confirm the chosen options and then be returned to the Dial Pattern screen (shown previously), select **Commit** button to save.

Avaya Aura® System Manager 6.2

Home / Elements / Routing / Dial Patterns

Originating Location and Routing Policy List

**Originating Location**

☐ Apply The Selected Routing Policies to All Originating Locations

1 Item	Refresh	Filter: Enable
<input checked="" type="checkbox"/>	Name	Notes
<input checked="" type="checkbox"/>	Session_Location	

Select : All, None

**Routing Policies**

5 Items	Refresh	Filter: Enable
<input type="checkbox"/>	Name	Disabled
<input type="checkbox"/>	SessionM	<input type="checkbox"/> Session_Manager
<input checked="" type="checkbox"/>	To Astrix	<input type="checkbox"/> Astrix (Teleq)

## 8. Configure TeleQ Client/Server and Asterisk Server

As stated in **Section 1**. Aurora Innovation does not require the configuration of TeleQ Client/Server or Asterisk server to be part of this Application Note.

## 9. Verification Steps

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

1. Make a call to the TeleQ queue number. Ensure the call is connected.
2. Make a call to the TeleQ queue number and request a call back. Ensure the call back is recorded on the TeleQ server.
3. Make a call from the TeleQ client. Ensure the Agent Deskphone and called number is connected.

## 10. Conclusion

A full and comprehensive set of feature functional test cases were performed during Compliance testing. Aurora Innovation is considered compliant with Avaya Communication Server 1000E 7.6 via an Avaya Aura® Session Manager 6.2. All test cases have passed and met the objectives outlined in **Section 2.2**.

## 11. Additional References

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

- [1] *Software Input Output Reference — Administration Avaya Communication Server 1000*  
7.6, NN43001-611, 06.01. March 2013
- [2] *Software Input Output Reference — Maintenance Avaya Communication Server 1000*  
7.6, NN43001-711, 06.01. March 2013
- [3] *Administering Avaya Aura® System Manager* Release 6.2, July 2012
- [4] *Administering Avaya Aura® Session Manager, Release 6.3, December, 2012*

Product Documentation for TeleQ can be obtained from Aurora Innovation at: [www.ain.se](http://www.ain.se)

## Appendix A: Avaya Communication Server 1000E Software

### Avaya Communication Server 1000E call server deplists and patches

VERSION 4121

RELEASE 7

ISSUE 65 P +

DepList 1: core Issue: 01 (created: 2013-06-14 03:54:33 (est))

#### IN-SERVICE PEPs

PAT#	CR #	PATCH REF #	NAME	DATE	FILENAME	SPECINS
000	wi01052968	ISS1:1OF1	p32540_1	28/08/2013	p32540_1.cpl	NO
001	wi01045058	ISS1:1OF1	p32214_1	28/08/2013	p32214_1.cpl	NO
002	wi01085855	ISS1:1OF1	p32658_1	28/08/2013	p32658_1.cpl	NO
003	wi01053314	ISS1:1OF1	p32555_1	28/08/2013	p32555_1.cpl	NO
004	wi01060382	iss1:1of1	p32623_1	28/08/2013	p32623_1.cpl	YES
005	wi01070580	ISS1:1OF1	p32380_1	28/08/2013	p32380_1.cpl	NO
006	wi01067822	ISS1:1OF1	p32466_1	28/08/2013	p32466_1.cpl	YES
007	wi01061481	ISS1:1OF1	p32382_1	28/08/2013	p32382_1.cpl	NO
008	wi01072032	ISS1:1OF1	p32448_1	28/08/2013	p32448_1.cpl	NO
009	wi01022599	ISS1:1OF1	p32080_1	28/08/2013	p32080_1.cpl	NO
010	wi01035976	ISS1:1OF1	p32173_1	28/08/2013	p32173_1.cpl	NO
011	wi01065922	ISS1:1OF1	p32516_1	28/08/2013	p32516_1.cpl	NO
012	wi01055480	ISS1:1OF1	p32712_1	28/08/2013	p32712_1.cpl	NO
013	wi01041453	ISS1:1OF1	p32587_1	28/08/2013	p32587_1.cpl	NO
014	wi01078723	ISS1:1OF1	p32532_1	28/08/2013	p32532_1.cpl	NO
015	WI0110261	ISS1:1OF1	p32758_1	28/08/2013	p32758_1.cpl	NO
016	wi01064599	iss1:1of1	p32580_1	28/08/2013	p32580_1.cpl	NO
017	wi01048457	ISS1:1OF1	p32581_1	28/08/2013	p32581_1.cpl	NO
018	wi01072027	ISS1:1OF1	p32689_1	28/08/2013	p32689_1.cpl	NO
019	wi01059388	iss1:1of1	p32628_1	28/08/2013	p32628_1.cpl	NO
020	wi01074003	ISS1:1OF1	p32421_1	28/08/2013	p32421_1.cpl	NO
021	wi00933195	ISS1:1OF1	p32491_1	28/08/2013	p32491_1.cpl	NO
022	wi00996734	ISS1:1OF1	p32550_1	28/08/2013	p32550_1.cpl	NO
023	wi01065118	ISS1:1OF1	p32397_1	28/08/2013	p32397_1.cpl	NO
024	wi01063864	ISS1:1OF1	p32410_1	28/08/2013	p32410_1.cpl	YES
025	wi01072023	ISS1:1OF1	p32130_1	28/08/2013	p32130_1.cpl	YES
026	wi01075359	ISS1:1OF1	p32671_1	28/08/2013	p32671_1.cpl	NO
027	wi01080753	ISS1:1OF1	p32518_1	28/08/2013	p32518_1.cpl	NO
028	wi01070473	ISS1:1OF1	p32413_1	28/08/2013	p32413_1.cpl	NO
029	wi01075355	ISS1:1OF1	p32594_1	28/08/2013	p32594_1.cpl	NO
030	wi01071379	ISS1:1OF1	p32522_1	28/08/2013	p32522_1.cpl	NO
031	wi01070756	ISS1:1OF1	p32444_1	28/08/2013	p32444_1.cpl	NO
032	wi01075353	ISS1:1OF1	p32613_1	28/08/2013	p32613_1.cpl	NO
033	wi01062607	ISS1:1OF1	p32503_1	28/08/2013	p32503_1.cpl	NO
034	wi01068851	ISS1:1OF1	p32439_1	28/08/2013	p32439_1.cpl	NO

035	wi01075352	ISS1:1OF1	p32603_1	28/08/2013	p32603_1.cpl	NO
036	wi01092300	ISS1:1OF1	p32692_1	28/08/2013	p32692_1.cpl	NO
037	wi01063263	ISS1:1OF1	p32573_1	28/08/2013	p32573_1.cpl	NO
038	wi01087528	ISS1:1OF1	p32700_1	28/08/2013	p32700_1.cpl	NO
039	wi01055300	ISS1:1OF1	p32543_1	28/08/2013	p32543_1.cpl	NO
040	wi01039280	ISS1:1OF1	p32423_1	28/08/2013	p32423_1.cpl	NO
041	wi01068669	ISS1:1OF1	p32333_1	28/08/2013	p32333_1.cpl	NO
042	wi01069441	ISS1:1OF1	p32097_1	28/08/2013	p32097_1.cpl	NO
043	wi01058621	ISS1:1OF1	p32339_1	28/08/2013	p32339_1.cpl	NO
044	wi01032756	ISS1:1OF1	p32673_1	28/08/2013	p32673_1.cpl	NO
045	wi01070465	iss1:1of1	p32562_1	28/08/2013	p32562_1.cpl	NO
046	wi01053920	ISS1:1OF1	p32303_1	28/08/2013	p32303_1.cpl	NO
047	wi00897254	ISS1:1OF1	p31127_1	28/08/2013	p31127_1.cpl	NO
048	wi01057403	ISS1:1OF1	p32591_1	28/08/2013	p32591_1.cpl	NO
049	wi01066991	ISS1:1OF1	p32449_1	28/08/2013	p32449_1.cpl	NO
050	wi01094305	ISS1:1OF1	p32640_1	28/08/2013	p32640_1.cpl	NO
051	wi01058359	ISS1:1OF1	p32331_1	28/08/2013	p32331_1.cpl	NO
052	wi01047890	ISS1:1OF1	p32697_1	28/08/2013	p32697_1.cpl	NO
053	wi01060241	ISS1:1OF1	p32381_1	28/08/2013	p32381_1.cpl	NO
054	wi01034307	ISS1:1OF1	p32615_1	28/08/2013	p32615_1.cpl	NO
055	wi01052428	ISS1:1OF1	p32606_1	28/08/2013	p32606_1.cpl	NO
056	wi00884716	ISS1:1OF1	p32517_1	28/08/2013	p32517_1.cpl	NO
057	wi01070468	iss1:1of1	p32418_1	28/08/2013	p32418_1.cpl	NO
058	wi01091447	ISS1:1OF1	p32675_1	28/08/2013	p32675_1.cpl	NO
059	wi01068042	ISS1:1OF1	p32669_1	28/08/2013	p32669_1.cpl	NO
060	wi01061483	ISS1:1OF1	p32359_1	28/08/2013	p32359_1.cpl	NO
061	wi01065125	ISS1:1OF1	p32416_1	28/08/2013	p32416_1.cpl	NO
062	wi01056633	ISS1:1OF1	p32322_1	28/08/2013	p32322_1.cpl	NO
063	wi01070474	iss1:1of1	p32407_1	28/08/2013	p32407_1.cpl	NO
064	wi01053597	ISS1:1OF1	p32304_1	28/08/2013	p32304_1.cpl	NO
065	wi01070471	ISS1:1OF1	p32415_1	28/08/2013	p32415_1.cpl	NO
066	wi01025156	ISS1:1OF1	p32136_1	28/08/2013	p32136_1.cpl	NO
067	wi01088775	ISS1:1OF1	p32659_1	28/08/2013	p32659_1.cpl	NO
068	wi01083584	ISS1:1OF1	p32619_1	28/08/2013	p32619_1.cpl	NO
069	wi01075360	iss1:1of1	p32602_1	28/08/2013	p32602_1.cpl	NO
070	wi01053195	ISS1:1OF1	p32297_1	28/08/2013	p32297_1.cpl	NO
071	wi01043367	ISS1:1OF1	p32232_1	28/08/2013	p32232_1.cpl	NO
072	wi01082456	ISS1:1OF1	p32596_1	28/08/2013	p32596_1.cpl	NO
073	wi01089519	ISS1:1OF1	p32665_1	28/08/2013	p32665_1.cpl	NO
074	wi01065842	ISS1:1OF1	p32478_1	28/08/2013	p32478_1.cpl	NO
075	wi01088585	ISS1:1OF1	p32656_1	28/08/2013	p32656_1.cpl	NO
076	wi01035980	ISS1:1OF1	p32558_1	28/08/2013	p32558_1.cpl	NO
077	wi01087543	ISS1:1OF1	p32662_1	28/08/2013	p32662_1.cpl	NO
078	wi01060826	ISS1:1OF1	p32379_1	28/08/2013	p32379_1.cpl	NO
079	wi01061484	ISS1:1OF1	p32576_1	28/08/2013	p32576_1.cpl	NO
080	wi01034961	ISS1:1OF1	p32144_1	28/08/2013	p32144_1.cpl	NO
081	wi01056067	ISS1:1OF1	p32457_1	28/08/2013	p32457_1.cpl	NO

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082 WI01077073  ISS1:1OF1  p32534_1 28/08/2013 p32534_1.cpl NO
083 wi01073100  ISS1:1OF1  p32599_1 28/08/2013 p32599_1.cpl NO
084 wi01060341  ISS1:1OF1  p32578_1 28/08/2013 p32578_1.cpl NO
MDP>LAST SUCCESSFUL MDP REFRESH :2013-08-27 14:24:01(Local Time)
MDP>USING DEPLIST ZIP FILE DOWNLOADED :2013-08-27 09:21:58(est)

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ENABLED PLUGINS : 2

PLUGIN	STATUS	PRS/CR_NUM	MPLR_NUM	DESCRIPTION
201	ENABLED	Q00424053	MPLR08139	PI:Cant XFER OUTG TRK TO OUTG TRK
501	ENABLED	Q02138637	MPLR30070	Enables blind transfer to a SIP endpoint even if SIP UPDATE is not supported by the far end

## Signalling Server Service Packs and patches

In System service updates: 26

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

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