

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

## Application Notes for Configuring Aurora Innovation TeleQ R5 with Avaya Communication Server 1000E R7.6 via Avaya Network Routing Service - Issue 1.0

#### Abstract

These Application Notes describe the configuration steps required for Aurora Innovation TeleQ with Avaya Communication Server 1000E R7.6 via Avaya Network Routing Service.

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

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 healthcare provider and speak to an agent, leave a voice mail, and book a callback to a specified 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 (CS1000E) as implemented on a customer's premises using an Avaya Network routing service (NRS). Testing focused on verifying that TeleQ registered with the Avaya NRS 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: CS1000E and TeleQ Server via NRS
- 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 CS1000E solution. The tests were all functional in nature and performance testing was not included. All test cases passed successfully.

**Note:** During compliance testing it was observed that when making an outgoing call from the TeleQ client, there was a delay of approximately 10 seconds before the agent Deskphone rang, and approximately another 10 seconds before the customer's phone rang, after the agent answered the Deskphone.

#### 2.3. Support

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

Email: <u>support@ain.se</u> Web: <u>www.ain.se</u> Phone: +4618194455

## 3. Reference Configuration

**Figure 1** illustrates the network topology used during compliance testing. The Avaya solution consists of a CS1000E Co-Res call server, signalling server and Network Routing Service. Avaya Aura<sup>®</sup> System Manager was used to manage the Network Routing Service and access the CS1000E Element Manager. A SIP trunk was configured between the Network Routing Service and the Asterisk server to communicate with the TeleQ application server. Communication between the TeleQ client and the CS1000E was via the TeleQ application server and Asterisk Server. On the CS1000E a Distant steering Code (DSC) was configured to route calls to the Network Routing Service which in turn were routed to the TeleQ application server via the Asterisk server. Calls required to be answered by an agent were routed back to the CS1000E and answered on an Avaya 1140E IP 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.

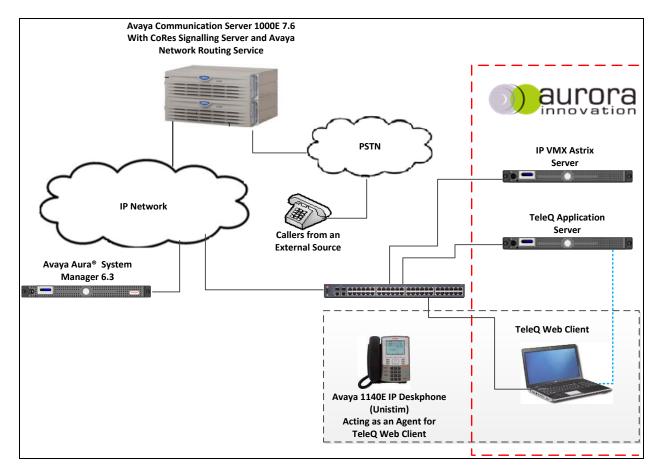


Figure 1: Avaya CS1000E and TeleQ Reference Configuration

# 4. Equipment and Software Validated

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

Avaya Equipment	Software / Firmware Version
Co-Res Call Server/Signalling Server/ Network	Avaya Communication Server 1000E R7.6
Routing Service running on a Call Processor	• Signalling Server 7.6.5.16
Pentium Mobile (CPPM) NTDW61BA	• Call Server 7.65P
Avaya Media Gateway Controller	H/W NTDW60
	S/W FPGA AA18
Avaya 11xx series IP Telephones	
• 1140e	0625C8Q (UniStim)
•	
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 CS1000E 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 CS1000E 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, are required. All other inputs can be left as default.

## 5.1. Configure Dialling Plan

To route calls to the TeleQ Application server a dial plan is required. The numbers configured are routed to the Network Routing Service, where a Routing Entry (see Section 7.2) 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 Dialing 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.

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: **FLEN** is **6**).

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 dialing 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 Network Routing Service. 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→ Elements→Communication Server 1000 (not shown).

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

Αναγα	CS1000 Element Manager	
- UCM Network Services - Home - Links	Managing: <u>192.168.40.101</u> Username: paul System Overview	
<ul> <li>Virtual Terminals</li> <li>System</li> <li>Alarms</li> <li>Maintenance</li> </ul>	System Overview	
Core Equipment     - Peripheral Equipment     - IP Network     -Nodes: Servers, Media Cards     - Maintenance and Reports     - Media Gateways     - Zones		IP Address: 192.168.40.101 Type: Avaya Communication Server 1000E CPPM Linux Version: 4121 Release: 765 P +
– 2011es – Host and Route Tables – Network Address Translation (N/ – QoS Thresholds		

Once the **IP Telephony Nodes page** opens, click on the appropriate node (During compliance testing node **111** was used.)

Αναγα	CS100	0 Element	t Manager				
- UCM Network Services - Home		IP Network » IP Tel					
- Links	IP Telephony	Nodes					
- Virtual Terminals	Click the Node ID to	o view or edit its p	properties.				
- System							
+ Alarms - Maintenance + Core Equipment	Add Impor	t Export	Delete				Print   Refresh
- Peripheral Equipment	Node ID +	Components	Enabled Applications	ELAN IP	Node/TLAN IPv4	Node/TLAN IPv6	Status
- IP Network - <u>Nodes: Servers, Media Cards</u>	<u>111</u>	1	SIP Line, LTPS, Gateway ( SIPGw )	-	10.10.40.111	-	Synchronized
- Maintenance and Reports - Media Gateways - Zones	Show: 🔽 Nodes	Compone	ent servers and cards [	IPv6 address			

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**).

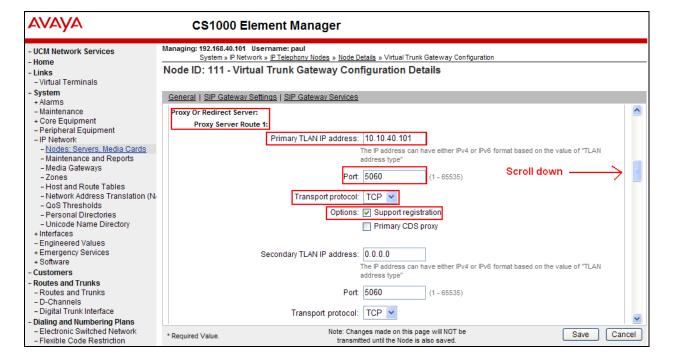
Αναγα	CS1000 Element Manager	
– UCM Network Services – Home – Links – Virtual Terminals	Managing: 192.168.40.101 Username: paul System » IP Network » <u>IP Telephony Nodes</u> » Node Details Node Details (ID: 111 - SIP Line, LTPS, Gatew	
<ul> <li>System</li> <li>Alarms</li> <li>Maintenance</li> <li>Core Equipment</li> <li>Peripheral Equipment</li> </ul>	Gateway IP audress. 192. 100.40.1	Nude Inv4 address.         IU. IU. 40. III         *           Subnet mask:         255.255.0         *
<ul> <li>IP Network</li> <li><u>Nodes: Servers, Media Cards</u></li> <li>Maintenance and Reports</li> </ul>	IP Telephony Node Properties	Node IPv6 address: Applications (click to edit configuration)
<ul> <li>Media Gateways</li> <li>Zones</li> <li>Host and Route Tables</li> <li>Network Address Translation (N/ QoS Thresholds</li> <li>Personal Directories</li> <li>Unicode Name Directory</li> </ul>	Voice Gateway (VGW) and Codecs     Quality of Service (QoS)     LAN     SNTP     Numbering Zones     MCDN Aternative Routing Treatment (MALT) Causes	SIP Line     Terminal Proxy Server (TPS)     Gateway (SIPGw)     Personal Directories (PD)     Presence Publisher     IP Media Services
+ Interfaces - Engineered Values	* Required Value.	Save Cancel

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 Network Routing Service (10.10.40.101)
- Port Enter 5060
  Transport protocol Select TCP from the dropdown box
- Options

Select **TCP** from the dropdown box Click the **Support registration** check box

Using the scroll bar on the right hand side of the screen, scroll down to Dial plan prefixes.



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In the **Dial plan prefixes** section remove all entries. Click on the **Save** button to save the configuration.

**Note:** During compliance testing all entries were left blank. On some customer sites; some of these entries may be required.

алауа	CS1000 Element Manager		Help   Logout
- UCM Network Services  - Home - Links - Virtual Terminals	Managing: 192.168.40.101 Username: paul System » IP Network » IP Telephony Nodes » Node Deta Node ID: 111 - Virtual Trunk Gateway Config		
- System + Alarms - Maintenance + Core Equipment - Peripheral Equipment - IP Network	General   SIP Gateway Settings   SIP Gateway Services	] TLS endpoints only	
<ul> <li><u>Nodes: Servers, Media Cards</u></li> <li>Maintenance and Reports</li> <li>Media Gateways</li> </ul>	CTI settings Customer number: 0	Dial plan prefixes National:	
- Zones - Host and Route Tables - Network Address Translation - QoS Thresholds	Maximum associations per DN: 3 💌 International calls: 🔲 Place as nationa	International:	
<ul> <li>Personal Directories</li> <li>Unicode Name Directory</li> <li>Interfaces</li> </ul>	For calls within this	country. Special number: Subscriber:	
- Engineered Values + Emergency Services + Software - Customers	CTI CLID presentation Dialing plan:		
- Routes and Trunks     - Routes and Trunks     - D-Channels	51	ohone-context=dialstring	
- Digital Trunk Interface     - Dialing and Numbering Plans     - Electronic Switched Network     - Flexible Code Restriction		es made on this page will NOT be 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.

AVAYA	CS1000 Ele	ment Manag	er		
- UCM Network Services - Home - Links - Virtual Terminals		rk » IP Telephony Nodes	» Node Details PS, Gateway ( SIPGw ))		
<ul> <li>System</li> <li>+ Alarms</li> <li>- Maintenance</li> <li>+ Core Equipment</li> </ul>	Node ID: Call server IP address:	111 *	(0-9999) TI AN address t	pe: 💿 IPv4 only	<u>^</u>
- Peripheral Equipment     - IP Network     - <u>Nodes: Servers, Media Cards</u> - Maintenance and Reports		132.100.40.101		IPv4 and IPv6	
– Media Gateways – Zones – Host and Route Tables	Embedded LAN (ELAN) Gateway IP address:	192.168.40.1 *	Telephony LAN (TL Node IPv4 addre	ss: 10.10.40.111 *	
<ul> <li>Network Address Translation (N/ - QoS Thresholds</li> <li>Personal Directories</li> <li>Unicode Name Directory</li> </ul>	Subnet mask:	255.255.255.0 *	Subnet ma Node IPv6 addre		
+ Interfaces - Engineered Values	* Required Value.				Save Cancel

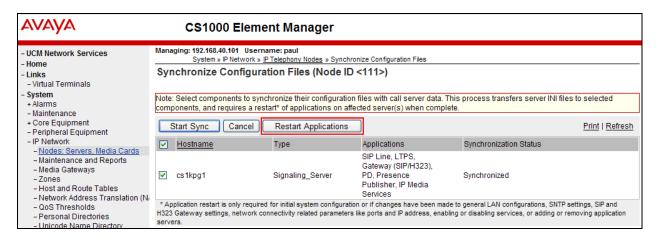
Solution & Interoperability Test Lab Application Notes ©2014 Avaya Inc. All Rights Reserved. On the Node Saved page, click on the Transfer Now button.

Αναγα	CS1000 Element Manager
- UCM Network Services - Home	Managing: 192.168.40.101 Username: paul System » IP Network » IP Telephony Nodes » Node Saved
- Links - Virtual Terminals Sustem	Node Saved
<ul> <li>System</li> <li>+ Alarms</li> <li>Maintenance</li> </ul>	Node ID: 111 has been saved on the call server.
+ Core Equipment - Peripheral Equipment - IP Network	The new configuration must also be transferred to associated servers and media cards.
- <u>Nodes: Servers, Media Cards</u> - Maintenance and Reports	Transfer Now You will be given an option to select individual servers, or transfer to all.
- Media Gateways - Zones	Show Nodes You may initiate a transfer manually at a later time.

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

avaya	CS1000 Eleme	ent Manager		
- UCM Network Services - Home - Links - Virtual Terminals	Managing: 192.168.40.101 Usern System » IP Network » II Synchronize Configura	P Telephony Nodes » Synchr	-	
- System + Alarms - Maintenance	components, and requires a res	tart* of applications on aff		
Core Equipment     Peripheral Equipment     Protevork     Nodes: Servers, Media Cards     Maintenance and Reports     Media Gateways     Zones     Host and Route Tables     Network Address Translation (N)	Start Sync Cancel	Restart Applications	Applications	Print   Refresh Synchronization Status
	✓ cs1kpg1	Signaling_Server	SIP Line, LTPS, Gateway (SIP/H323), PD, Presence Publisher, IP Media Services	Sync required
- QoS Thresholds - Personal Directories	* Application restart is only required			e to general LAN configurations, SNTP settings, SIP and ng or disabling services, or adding or removing application

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



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# 7. Configuring Avaya Network Routing Service

This section provides the procedures to configure the NRS. For TeleQ to communicate with CS1000E a number of configurations must be carried out on the NRS. It is implied that the NRS is already in place please and a domain has been added. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 11**. The NRS is configured using the Network Routing Service Manager web interface, accessed via a link from **System Manager**  $\rightarrow$  **Elements**  $\rightarrow$  **Communication Server 1000**. The configuration operations described in this section can be summarized as follows:

- Configure a Static SIP Endpoint for TeleQ (Asterisk Server)
- Configure Routing Entries for the Asterisk Server
- Update the Database

## 7.1. Configure a Static SIP Endpoint for the Asterisk Server

After logging into Network Routing Service Manager with the appropriate credentials navigate to Numbering Plans  $\rightarrow$  Endpoints and click on the Standby database radio button. In the Endpoint ID box enter a descriptive name. For the Limit results to Domain select the domain (example devconnect.local) / udp / cdp and click on the Add button.

Αναγα	Network Routing Service Manager
«UCM Network Services - System NRS Server Database	Managing:       O Active database       192.168.40.101         Image: Standby database       Numbering Plans » Endpoints
System Wide Settings - Numbering Plans Domains	Search for Endpoints
Endpoints Routes Network Post-Translation Collaborative Servers	Enter an endpoint ID (use * for all) and click Search.You may narrow the search by specifying a particu
<ul> <li>Tools</li> <li>SIP Phone Context</li> <li>Routing Tests</li> </ul>	Limit results to Domain: devconnect.local 👻 / udp 💟 / cdp 💟
H.323 SIP Backup	Gateway Endpoints (0) User Endpoints (0)
Restore GK/NRS Data upgrade	Gateway Endpoints (0)     User Endpoints (0)       Add     Delete     SIP phone context
	□ ID ▲ <u>Supported Protocols</u> <u>SIP mode:</u> <u>Call Sig</u>

Once the **Add Gateway Endpoint** page opens enter the following:

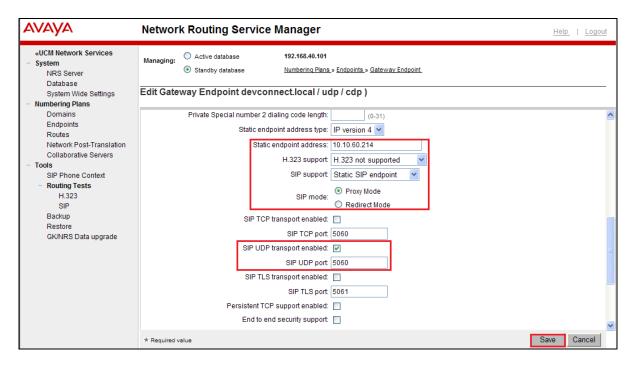
- Enter a descriptive name in the **End point name** box (example. Asterisk)
- Click the **Trust Node** check box
- Select Not Applicable from the Tandem gateway endpoint name dropdown box
- Select Authentication off from the Endpoint authentication enabled dropdown box

Scroll down using the vertical scroll bar on the right side of the page to **Static endpoint address type**.

Αναγα	Network Rout	ting Service Mana	ager		Help   Logou
«UCM Network Services – System NRS Server Database	Managing:	<ul> <li>Active database</li> <li>Standby database</li> </ul>	192.168.40.101 Numbering Plans » Endooir	int <u>s</u> » <u>Gatewav Endpoint</u>	
System Wide Settings	Add Gatev	vay Endpoint dpp.noi	rtel / udp / cdp )		
- Numbering Plans					
Domains			End point name: /	Asterisk *	
Endpoints					
Routes			Description:		Scroll down
Network Post-Translation			Description.	2	
Collaborative Servers					
- Tools			Trust Node:		
SIP Phone Context			Tandem gateway endpoint name:	Not Applicable 👻	
<ul> <li>Routing Tests</li> </ul>			Endpoint authentication enabled:	Authoritantian off an	
H.323			Endpoint autrentication enabled. 7	Autrentication oil	
SIP			Authentication password:		
Backup			E 164 country code:		
Restore			E.164 country code:		
GK/NRS Data upgrade			E 164 area code:		

- Enter the IP address of the Asterisk Server in the Static endpoint address
- Select Static SIP endpoint from the SIP support dropdown box
- Click on the **Redirect Mode** radio button
- Click the SIP UDP transport enabled check box
- Enter **5060** in the **SIP TCP Port** box

All other values may be left at default. Click on the **Save** button.



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### 7.2. Configure Routing Entries for the Asterisk Server

A routing entry needs to be configured for calls to the Asterisk Server. From the NRS Routing Service Manager Page navigate to **Numbering Plans**  $\rightarrow$  **Routes** and click on the **Standby database** radio button. In the **DN Prefix box** enter the number for the TeleQ queue number as configured in Section 5.1.2. Select All DN Types from the **DN Type** dropdown box. Select the **domain** (devconnect.local) / udp / cdp from the Limit results to Domain dropdown boxes. Select Asterisk (Gateway Endpoint configured in Section 7.1) from the Endpoint Name dropdown box and click on the Add button.

Αναγα	Network Routing Service Manager	<u>Logout</u>			
«UCM Network Services – System NRS Server Database	Managing: C Active database 192.168.40.101 Standby database Numbering Plans » Routes				
System Wide Settings - Numbering Plans Domains	Search for Routing Entries	<u>Hide</u>			
Endpoints Routes	Enter a DnPrefix and Dn Type (use * for all) and click Search.You may narrow the search by specifying a particular domain.           DN Prefix:         5015         DN Type:         All DN Types				
Network Post-Translation Collaborative Servers					
<ul> <li>Tools</li> <li>SIP Phone Context</li> </ul>	Limit results to Domain: devconnect.local 💙 / udp 💙 / cdp 💙				
<ul> <li>Routing Tests H.323</li> </ul>	Endpoint Name: Asterisk				
SIP Backup	Results per page: 50 💌 Sear	ch			
Restore GK/NRS Data upgrade					
GRANKS Data upgrade	Routing Entries (1) Default Routes (0) Emergency Fallback Routes (0)				
	Add Copy Move Import Export Routing test Delete	fresh			
	DN Prefix         DN Type         Route Cost         SIP URI Phone Context         Context				

Once the Add Routing Entry page opens; select **Private level 0 regional (CDP steering code)**. In the **DN prefix** box enter the TeleQ queue number (i.e. 5015) as configured in **Section 5.2.1**. In the **Route cost box** enter **1** and click on the **Save** button.

Note: The TeleQ agent number is also added the same way.

Αναγα	Network Routing Service Manager	<u>Help</u>   <u>Logout</u>
«UCM Network Services - System NRS Server Database System Wide Settings	Managing:       O Active database       192.168.40.101         Image: Standby database       Numbering Plans_» Routes_» Routing Entry         Add Routing Entry ( devconnect.local / udp / cdp / Asterisk )	
Numbering Plans     Domains     Endpoints     Routes     Network Post-Translation     Collaborative Servers	DN type: Private level 0 regional (CDP steering code) ▼ DN prefix: 5015 ★ Route cost: 1 ★ (1-255)	
<ul> <li>Tools</li> <li>SIP Phone Context</li> <li>Routing Tests</li> <li>H.323</li> </ul>	* Required value.	Cancel

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### 7.3. Update the Database

Once the configuration changes have been made the Database needs to be updated. Select **Database**.

avaya	Network Routing Service Manager	Help   Logout			
«UCM Network Services – System NRS Server Database	Managing: Active database 192.168.40.101 Standby database <u>Numbering Plans.</u> » Routes				
System Wide Settings	Search for Routing Entries	Hide			
- Numbering Plans					
Domains Endpoints					
Routes	Enter a DnPrefix and Dn Type (use * for all) and click Search. You may narrow the search by specifying a particular domain.				
Network Post-Translation Collaborative Servers	DN Prefix: 5015 DN Type: All DN Types				
- Tools SIP Phone Context	Limit results to Domain: devconnect.local 💌 / udp 💌 / cdp 💌				
<ul> <li>Routing Tests</li> <li>H.323</li> </ul>	Endpoint Name: Asterisk				
SIP Backup	Results per page: 50	✓ Search			
Restore					
GK/NRS Data upgrade	Routing Entries (1) Default Routes (0) Emergency Fallback Routes (0)				
	Add Copy Move Import Export Routing test Delete	Refresh			
	DN Prefix DN Type Route Cost SIP URI Phone Context Contex	ext 🔨			

Once the **Database** page opens, click on the **Cut over** button.

AVAYA Ne	twork Routing Service Manager	lp   Logout
«UCM Network Services - System NRS Server Database System Wide Settings - Numbering Plans	Managing:       192.168.40.101         System > Database         Database         NRS uses a redundant database with Active and Standby copies. Normally changes are made to the standby database, tested, then cut over into active status.	
Domains Endpoints	Database status: Changed Cut over Revert Commit Re	oll back

#### Click on the **Commit** button.

AVAYA	Network Routing Service Manager
<ul> <li>«UCM Network Services</li> <li>System</li> <li>NRS Server</li> <li>Database</li> <li>System Wide Settings</li> <li>Numbering Plans</li> </ul>	Managing:       192.168.40.101         System » Database         Database         NRS uses a redundant database with Active and Standby copies. Normally changes are made to the standby database, tested, then cut over into active status.
Domains Endpoints	Database status: Switched over Cut over Commit Roll back

Once the Commit takes place, the Database status will update to Committed.

avaya	Network Routing Service Manager
«UCM Network Services – System NRS Server Database System Wide Settings – Numbering Plans	Managing:       192.168.40.101         System > Database         Database         NRS uses a redundant database with Active and Standby copies. Normally changes are made to the standby database, tested, then cut over into active status.
Domains Endpoints	Database status: Committed Cut over Revert Commit Poll back

# 8. Configure Asterisk Server

As stated in **Section 1**. Aurora Innovation do 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 preformed during compliance testing. Aurora Innovation is considered compliant with Avaya Communication Server 1000E 7.6 via Avaya Network Routing Service 7.6. 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 <u>http://support.avaya.com</u> 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® Network routing service, Release 7.6, December, 2012

Product Documentation for TeleQ can be obtained from Aurora Innovation at: www.ain.se

Avaya Communication Server 1000E call server deplists and patches					
mdp issp					
VERSION 4121					
RELEASE 7					
ISSUE 65 P +					
DepList 1: core Issue: 01 (created: 20	13-06-14 03:54:33 (est))				
IN-SERVICE PEPS					
PAT# CR # PATCH REF # NAM	E DATE FILENAME SPECINS				
	2540 1 06/09/2013 p32540 1.cpl NO				
•	2214_1 06/09/2013 p32214_1.cpl NO				
	2658_1 06/09/2013 p32658_1.cpl NO				
	2555 1 06/09/2013 p32555 1.cpl NO				
•	623 1 06/09/2013 p32623 1.cpl YES				
005 wi01070580 ISS1:10F1 p3	2380 1 06/09/2013 p32380 1.cpl NO				
006 wi01067822 ISS1:10F1 p3	2466_1 06/09/2013 p32466_1.cpl YES				
	2382_1 06/09/2013 p32382_1.cpl NO				
008 wi01072032 ISS1:10F1 p3	2448_1 06/09/2013 p32448_1.cpl NO				
009 wi01022599 ISS1:10F1 p3	2080_1_06/09/2013_p32080_1.cpl_NO				
010 wi01035976 ISS1:10F1 p3	2173_1 06/09/2013 p32173_1.cpl NO				
011 wi01065922 ISS1:10F1 p3	2516_1 06/09/2013 p32516_1.cpl NO				
012 wi01055480 ISS1:10F1 p3	2712_1 06/09/2013 p32712_1.cpl NO				
013 wi01041453 ISS1:10F1 p3	2587_1 06/09/2013 p32587_1.cpl NO				
014 wi01078723 ISS1:10F1 p3	2532_1 06/09/2013 p32532_1.cpl NO				
015 WI0110261 ISS1:10F1 p33	2758_1 06/09/2013 p32758_1.cpl NO				
016 wi01064599 iss1:1of1 p32	580_1 06/09/2013 p32580_1.cpl NO				
017 wi01048457 ISS1:10F1 p3	2581_1 06/09/2013 p32581_1.cpl NO				
018 wi01072027 ISS1:10F1 p3	2689_1 06/09/2013 p32689_1.cpl NO				
019 wi01059388 iss1:1of1 p32	628_1 06/09/2013 p32628_1.cpl NO				
020 wi01074003 ISS1:10F1 p3	2421_1 06/09/2013 p32421_1.cpl NO				
021 wi00933195 ISS1:10F1 p3	2491_1 06/09/2013 p32491_1.cpl NO				
022 wi00996734 ISS1:10F1 p3	2550_1 06/09/2013 p32550_1.cpl NO				
023 wi01065118 ISS1:10F1 p3	2397_1 06/09/2013 p32397_1.cpl NO				
024 wi01063864 ISS1:10F1 p3	2410_1 06/09/2013 p32410_1.cpl YES				
025 wi01072023 ISS1:10F1 p3	2130_1 06/09/2013 p32130_1.cpl YES				
026 wi01075359 ISS1:10F1 p3	2671_1 06/09/2013 p32671_1.cpl NO				
027 wi01080753 ISS1:10F1 p3	2518_1 06/09/2013 p32518_1.cpl NO				
028 wi01070473 ISS1:10F1 p3	2413_1 06/09/2013 p32413_1.cpl NO				
•	2594_1 06/09/2013 p32594_1.cpl NO				
030 wi01071379 ISS1:10F1 p3	2522_1 06/09/2013 p32522_1.cpl NO				
031 wi01070756 ISS1:10F1 p3	2444_1 06/09/2013 p32444_1.cpl NO				
•	2613_1 06/09/2013 p32613_1.cpl NO				
033 wi01062607 ISS1:10F1 p3	2503_1 06/09/2013 p32503_1.cpl NO				

## Appendix A: Avaya Communication Server 1000E Software

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034 wi01068851	ISS1:10F1	p32439_1 06/09/2013 p32439_1.cpl NO
035 wi01075352	ISS1:10F1	p32603_1 06/09/2013 p32603_1.cpl NO
036 wi01092300	ISS1:10F1	p32692_1 06/09/2013 p32692_1.cpl NO
037 wi01063263	ISS1:10F1	p32573_1 06/09/2013 p32573_1.cpl NO
038 wi01087528	ISS1:10F1	p32700_1 06/09/2013 p32700_1.cpl NO
039 wi01055300	ISS1:10F1	p32543_1 06/09/2013 p32543_1.cpl NO
040 wi01039280	ISS1:10F1	p32423_1 06/09/2013 p32423_1.cpl NO
041 wi01068669	ISS1:10F1	p32333_1 06/09/2013 p32333_1.cpl NO
042 wi01069441	ISS1:10F1	p32097_1 06/09/2013 p32097_1.cpl NO
043 wi01058621	ISS1:10F1	p32339_1 06/09/2013 p32339_1.cpl NO
044 wi01032756	ISS1:10F1	p32673_1 06/09/2013 p32673_1.cpl NO
045 wi01070465	iss1:1of1	p32562_1 06/09/2013 p32562_1.cpl NO
046 wi01053920	ISS1:10F1	p32303_1 06/09/2013 p32303_1.cpl NO
047 wi00897254	ISS1:10F1	p31127_1 06/09/2013 p31127_1.cpl NO
048 wi01057403	ISS1:10F1	p32591_1 06/09/2013 p32591_1.cpl NO
049 wi01066991	ISS1:10F1	p32449_1 06/09/2013 p32449_1.cpl NO
050 wi01094305	ISS1:10F1	p32640_1_06/09/2013_p32640_1.cpl_NO
051 wi01058359	ISS1:10F1	p32331_1 06/09/2013 p32331_1.cpl NO
052 wi01047890	ISS1:10F1	p32697_1 06/09/2013 p32697_1.cpl NO
053 wi01060241	ISS1:10F1	p32381_1 06/09/2013 p32381_1.cpl NO
054 wi01034307	ISS1:10F1	p32615_1 06/09/2013 p32615_1.cpl NO
055 wi01052428	ISS1:10F1	p32606_1 06/09/2013 p32606_1.cpl NO
056 wi00884716	ISS1:10F1	p32517_1 06/09/2013 p32517_1.cpl NO
057 wi01070468	iss1:1of1	p32418_1 06/09/2013 p32418_1.cpl NO
058 wi01091447	ISS1:10F1	p32675_1 06/09/2013 p32675_1.cpl NO
059 wi01068042	ISS1:10F1	p32669_1 06/09/2013 p32669_1.cpl NO
060 wi01061483	ISS1:10F1	p32359_1 06/09/2013 p32359_1.cpl NO
061 wi01065125	ISS1:10F1	p32416_1 06/09/2013 p32416_1.cpl NO
062 wi01056633	ISS1:10F1	p32322_1 06/09/2013 p32322_1.cpl NO
063 wi01070474	iss1:1of1	p32407_1 06/09/2013 p32407_1.cpl NO
064 wi01053597	ISS1:10F1	p32304_1 06/09/2013 p32304_1.cpl NO
065 wi01070471	ISS1:10F1	p32415_1 06/09/2013 p32415_1.cpl NO
066 wi01025156	ISS1:10F1	p32136_1 06/09/2013 p32136_1.cpl NO
067 wi01088775	ISS1:10F1	p32659_1 06/09/2013 p32659_1.cpl NO
068 wi01083584	ISS1:10F1	p32619_1 06/09/2013 p32619_1.cpl NO
069 wi01075360	iss1:1of1	p32602_1 06/09/2013 p32602_1.cpl NO
070 wi01053195	ISS1:10F1	p32297_1 06/09/2013 p32297_1.cpl NO
071 wi01043367	ISS1:10F1	p32232_1 06/09/2013 p32232_1.cpl NO
072 wi01082456	ISS1:10F1	p32596_1 06/09/2013 p32596_1.cpl NO
073 wi01089519	ISS1:10F1	p32665_1 06/09/2013 p32665_1.cpl NO
074 wi01065842	ISS1:10F1	p32478_1 06/09/2013 p32478_1.cpl NO
075 wi01088585	ISS1:10F1	p32656_1 06/09/2013 p32656_1.cpl NO
076 wi01035980	ISS1:10F1	p32558_1 06/09/2013 p32558_1.cpl NO
077 wi01087543	ISS1:10F1	p32662_1 06/09/2013 p32662_1.cpl NO
078 wi01060826	ISS1:10F1	p32379_1 06/09/2013 p32379_1.cpl NO
079 wi01061484	ISS1:10F1	p32576_1 06/09/2013 p32576_1.cpl NO
080 wi01034961	ISS1:10F1	p32144_1 06/09/2013 p32144_1.cpl NO

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 081
 wi01056067
 ISS1:1OF1
 p32457\_1
 06/09/2013
 p32457\_1.cpl
 NO

 082
 WI01077073
 ISS1:1OF1
 p32534\_1
 06/09/2013
 p32534\_1.cpl
 NO

 083
 wi01073100
 ISS1:1OF1
 p32599\_1
 06/09/2013
 p32599\_1.cpl
 NO

 084
 wi01060341
 ISS1:1OF1
 p32578\_1
 06/09/2013
 p32578\_1.cpl
 NO

 084
 wi01060341
 ISS1:1OF1
 p32578\_1
 06/09/2013
 p32578\_1.cpl
 NO

 MDP>LAST SUCCESSFUL MDP REFRESH :2013-08-27
 14:24:01(Local Time)
 ND
 MDP>USING DEPLIST ZIP FILE DOWNLOADED :2013-08-27
 09:21:58(est)

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

h	In System service updates: 26					
P	PAT	CH# IN_	SERVICE D	ATE	SPECINS	REMOVABLE NAME
C	)	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	2	Yes	27/08/13	NO	YES	cs1000-dmWeb-7.65.16.21-01.i386.000
3	5	Yes	28/08/13	NO	yes	cs1000-snmp-7.65.16.00-01.i686.000
4	ļ	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		YES	cs1000-shared-carrdtct-7.65.16.21-01.i386.000
1	.0	Yes	28/08/13		YES	cs1000-shared-tpselect-7.65.16.21-01.i386.000
1	.1	Yes	28/08/13		YES	cs1000-emWebLocal_6-0-7.65.16.21-01.i386.000
1	.2	Yes	28/08/13		yes	cs1000-dbcom-7.65.16.21-00.i386.000
	.3	Yes	28/08/13		YES	cs1000-csmWeb-7.65.16.21-05.i386.000
	.4	Yes	28/08/13		YES	cs1000-shared-xmsg-7.65.16.21-00.i386.000
1	.5	Yes	28/08/13		YES	cs1000-vtrk-7.65.16.21-29.i386.000
	.6	Yes	28/08/13		YES	cs1000-tps-7.65.16.21-05.i386.000
	.7	Yes	28/08/13		YES	cs1000-mscAnnc-7.65.16.21-02.i386.001
	.8	Yes	28/08/13		YES	cs1000-mscAttn-7.65.16.21-04.i386.001
1	.9	Yes	28/08/13		YES	cs1000-mscConf-7.65.16.21-02.i386.001
	.0	Yes	28/08/13		YES	cs1000-mscMusc-7.65.16.21-02.i386.001
	1	Yes	28/08/13		YES	cs1000-mscTone-7.65.16.21-03.i386.001
	2	Yes	28/08/13		YES	cs1000-bcc-7.65.16.21-21.i386.000
2	3	Yes	28/08/13		YES	cs1000-Jboss-Quantum-7.65.16.21-3.i386.000
	.4	Yes	28/08/13		YES	cs1000-emWeb_6-0-7.65.16.21-06.i386.000
	.5	Yes	28/08/13		yes	cs1000-cs-7.65.P.100-01.i386.001
	.4	Yes	28/08/13		YES	cs1000-emWeb_6-0-7.65.16.21-06.i386.000
2	.5	Yes	28/08/13	NO	yes	cs1000-cs-7.65.P.100-01.i386.001

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