



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Datatal AB Flexi Tid with Avaya Communication Server 1000E 7.6 via Avaya Aura[®] Session Manager - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Datatal AB Flexi Tid with Avaya Communication Server 1000E 7.6 via Avaya Aura[®] 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

Flexi Tid is an advanced call back and time booking solution. Flexi Tid is a product within the Flexi platform, developed by Datatal AB. Flexi Tid is primarily used in the Healthcare sector where, a large number of customers (patients) call at the same time, mainly in early morning. If there are not enough nurses (agents) to take all these calls, Flexi Tid allows the patients to book a time slot and an agent will call back at a defined time using a web interface. Flexi Tid will make a call to the agent telephone and another call to the patient, when both parties have answered a transfer is executed. Flexi Tid also includes its own Voice Mail system which allows patients to leave voicemails which can be replayed to the Agents telephone.

2. General Test Approach and Test Results

The general test approach was to configure Flexi Tid to communicate with the Avaya Communication Server 1000E (CS1000E) as implemented on a customer's premises using an Avaya Aura® Session Manager (Session Manager). Testing focused on verifying that Flexi Tid 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 focused on functionality 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 Flexi Tid Server via Session Manager
- Inbound calls to the Flexi Tid queue number
- Inbound calls to Voice Mail
- Flexi Tid Agent answers calls from the queue
- Inbound calls requiring call back (ensuring DTMF works)
- Flexi Tid Agents retrieving voicemails
- Flexi Tid Agents making outbound calls to patients

2.2. Test Results

Tests were performed to insure full interoperability of Datatal AB Flexi Tid and Avaya Communication Server 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 Datatal AB can be obtained through the following:

First Technical support Contact:

Email: Erik Kalström at erik@datatal.se

Phone: +46498253017

Second Technical support Contact:

Email: Thomas Person at tomas@datatal.se

Phone: + 46498253030

General Technical support Contact:

Email: support@datatal.se

+46498253030

3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. The Avaya solution consists of a CS1000E CoRes, and a Session Manager. An Avaya Aura® System Manager was used to manage the Session Manager and access the CS 1000E Element Manager. A SIP Trunk was configured between the Session Manager and the Flexi Tid server. Communication between the Flexi Tid client and the Avaya CS1000E was via the Flexi Tid server. On the CS1000E a Distant Steering Code (DSC) was configured to route calls to the Session Manager which in turn were routed to the Flexi Tid server. Calls required to be answered by an agent were routed back to the CS1000E and answered on an Avaya 1140E Deskphone. Outbound calls from the Flexi Tid Agent were performed by the Flexi Tid 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.

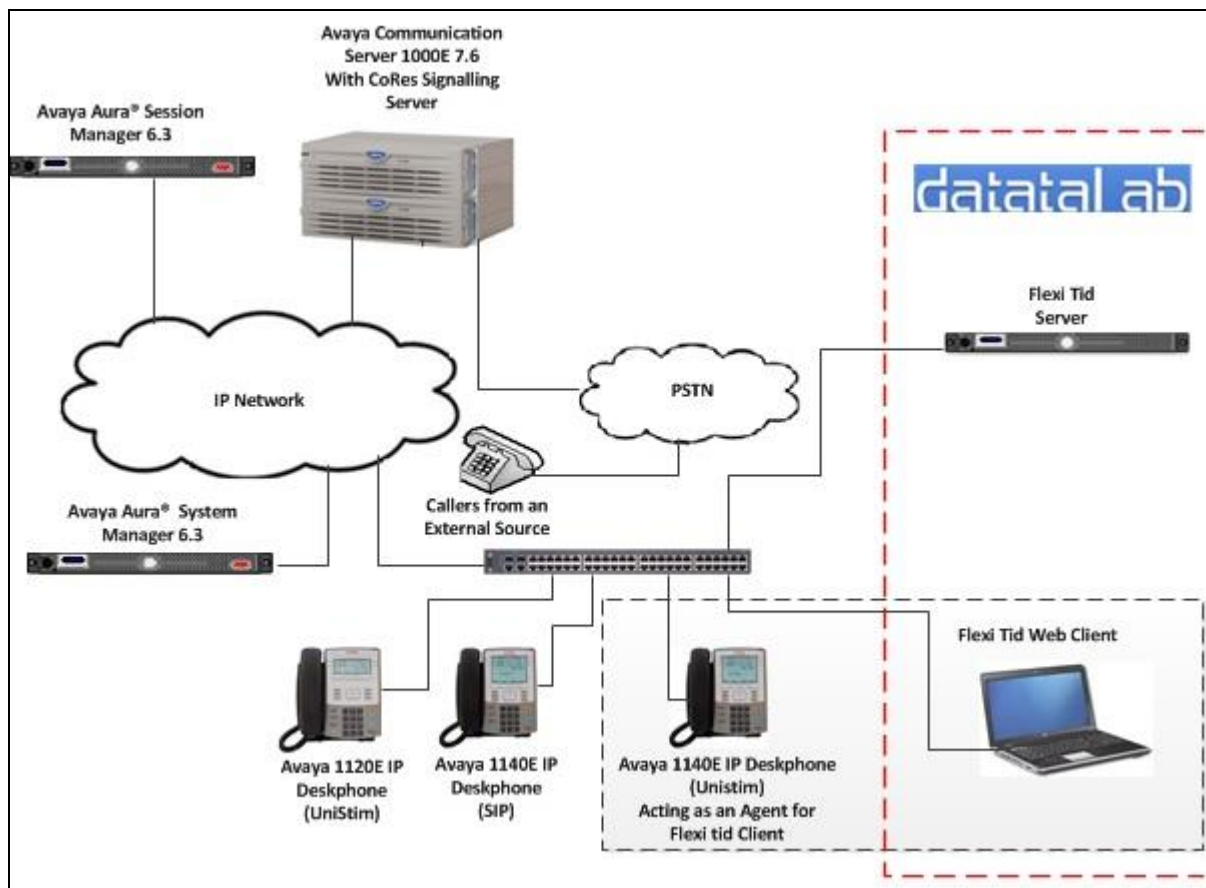


Figure 1: Avaya CS1000E and Flexi Tid Reference Configuration

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 R7.65P FPGA AA18
Avaya Aura® System Manager	R 6.3 Build 6.3.0.8.5682-6.3.8.2651 Update 6.3.4.4.1904
Avaya Aura® Session Manager	R6.3 Build 6.3.4.0.634014
Avaya 1100 series IP Telephones <ul style="list-style-type: none">• 1140E (UniStim)• 1140E (SIP)• 1120E (UniStim)	0625C8Q 04.03.12.00 0624C8Q
DataTall AB Equipment	Software / Firmware Version
Datatall Flexi platform running on Microsoft Windows Server 2008 R2 SP1	Version 5.9
Microsoft Internet Information Server (IIS)	Version 8.0
Microsoft SQL Server Express	Version 2008 R2
.Net Framework	2.0 and 3.5.1
PHP	5.2.18

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 CS1000E patches, deplist and service packs loaded on the system. The configuration operations described in this section relate to configuring a Dialling Plan relevant to the configuration used during compliance testing.

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

5.1. Configure Dialling Plan

To route calls to the Flexi Tid 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 Flexi Tid queue number on the Flexi Tid 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 Flexi Tid queue number and Flexi Tid agent. In the example below the **DSC** is **4400** (Flexi Tid queue number), **FLEN** is **4** and the **RLI** is **37**. The Flexi Tid Agent number **3000** was also configured the same way, only replacing **DSC 4400** with **DSC 3000** (not shown).

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

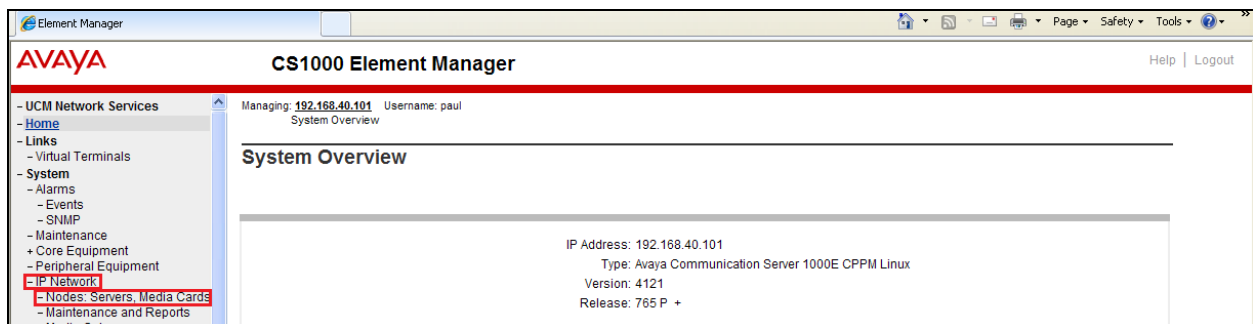
LD 87

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	4400	Distant Steering code
FLEN	4	Flexible Length number of digits
RLI	37	Route list index Number

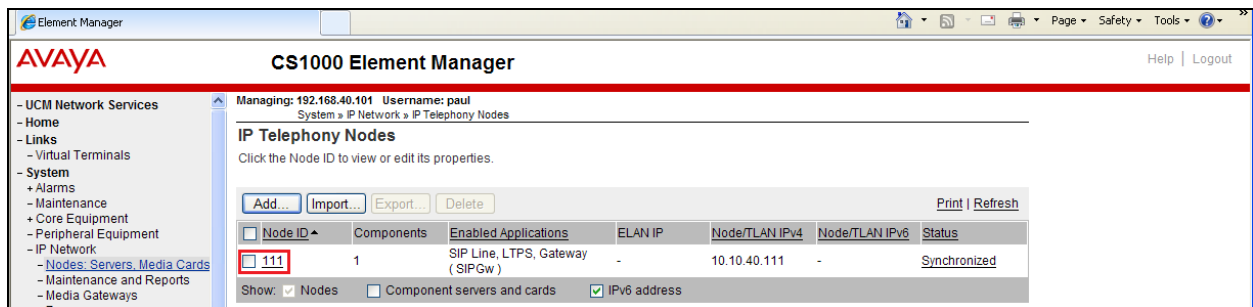
6. Configure Virtual Trunk Gateway

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.

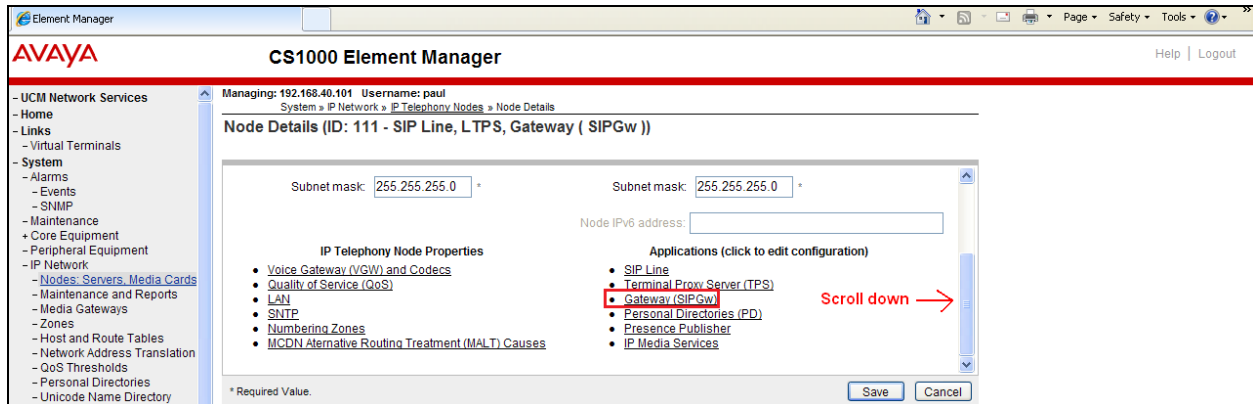
Once the CS1000 Element Manager page opens navigate to **IP Network → Nodes: Services, Media Cards**.



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



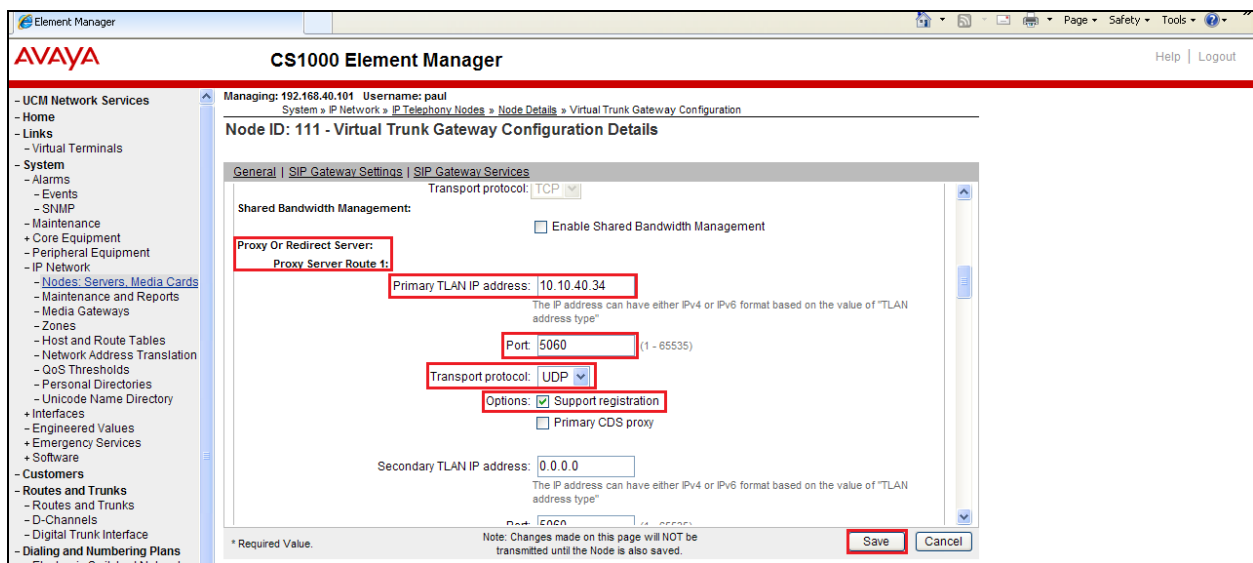
Once the **Node Details** page opens scroll down using the vertical scroll bar on the right side of the page and click on **Gateway (SIPGw)**.



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 (**10.10.40.34**)
- **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.



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

Managing: 192.168.40.101 Username: paul
System » IP Network » IP Telephony Nodes » Node Details

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) 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.

Managing: 192.168.40.101 Username: paul
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.

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

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

Synchronize Configuration Files (Node ID <111>)

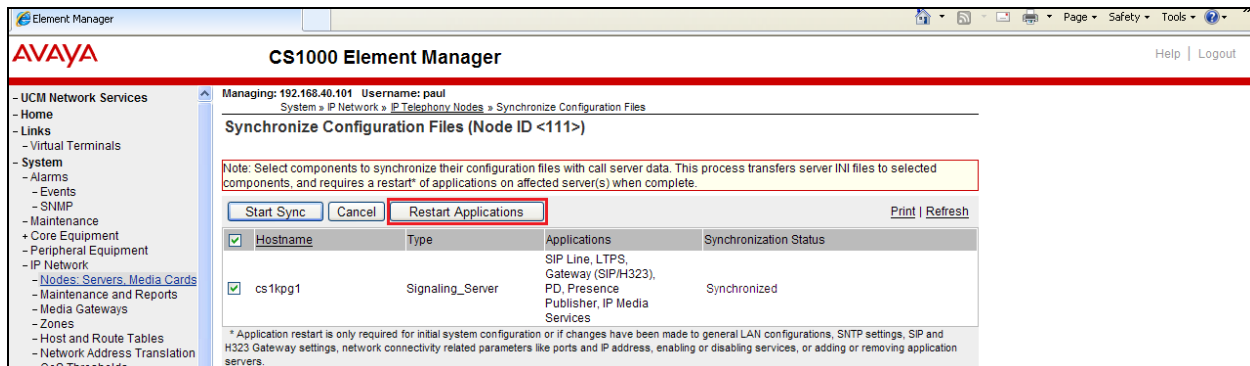
Note: Select components to synchronize their configuration files with call server data. This process transfers server INI files to selected components, and requires a restart* of applications on affected server(s) when complete.

Start Sync Cancel Restart Applications Print Refresh

Hostname	Type	Applications	Synchronization Status
<input checked="" type="checkbox"/> cs1kpg1	Signaling_Server	SIP Line, LTPS, 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, SNMP 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.

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 Flexi Tid 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:

- Log on to System Manager
- Create Flexi Tid Server as a SIP Entity
- Create an Entity Link for Flexi Tid Server
- Create a Routing Policy for Flexi Tid Server
- Create a Dial Pattern for Flexi Tid Server

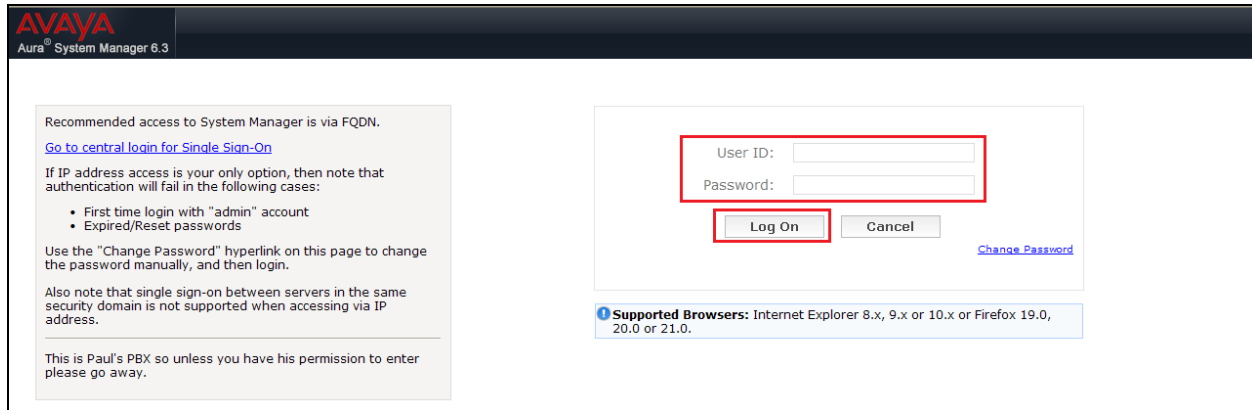
Note: It is implied a working Session Manager with a connected CS1000E is already in place. During Compliance testing a previously configured SIP Entity and an Entity Link for the CS1000E were utilized. Similarly, the previously configured Routing Policy and Dial Pattern to route calls to the CS1000E were not described in these Application Notes. The Location configured was **DevConnectPG63** and the Enterprise Domain was **devconnect.local**.

7.1. Log 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 System Manager; <ipaddress> is the IP address of System Manager.

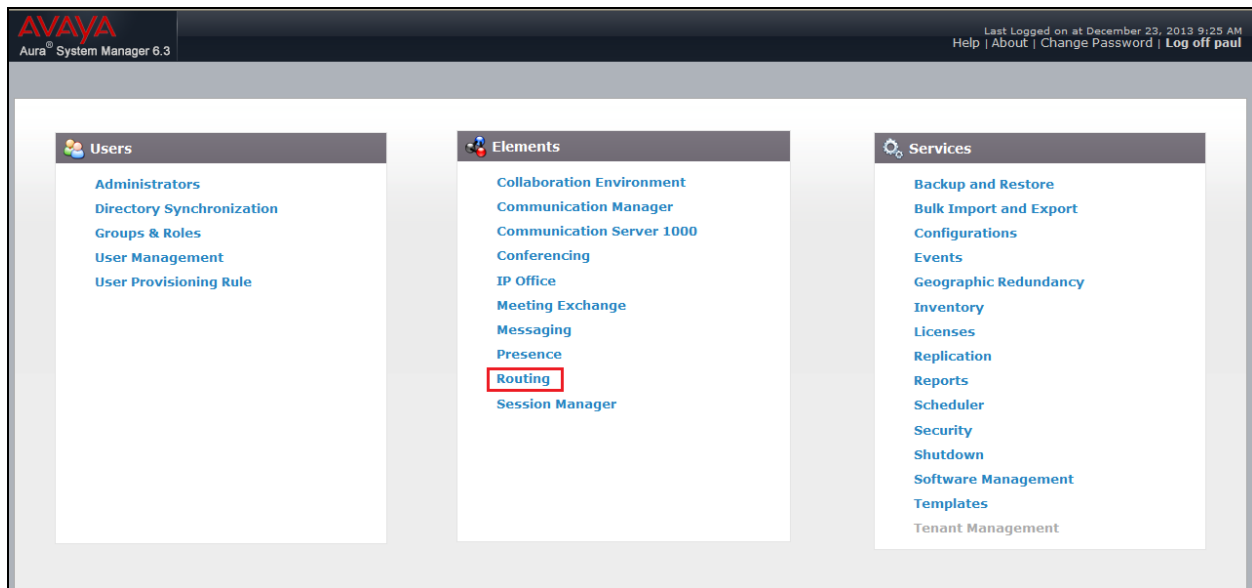
Once the System Manager Web page opens Log in with the appropriate credentials.



The screenshot shows the Avaya Aura System Manager 6.3 login page. The header includes the Avaya logo and 'Aura® System Manager 6.3'. The main content area has a left sidebar 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 is Paul's PBX so unless you have his permission to enter please go away.' The right side features a login form with 'User ID:' and 'Password:' fields, a 'Log On' button, a 'Cancel' button, and a 'Change Password' link. Below the form, a blue box states 'Supported Browsers: Internet Explorer 8.x, 9.x or 10.x or Firefox 19.0, 20.0 or 21.0.'

7.2. Create Flexi Tid Server as a SIP Entity

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



A SIP Entity must be added for the Flexi Tid 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.

Enter the following for the Flexi Tid SIP Entity:

Under **General**:

- **Name** Enter an informative name (e.g., **FlexiTID**)
- **FQDN or IP Address** Enter the IP address of the signalling interface of the Flexi Tid server
- **Type** Select **SIP Trunk** from the dropdown box
- **Location** Select an appropriate Location from the dropdown box, **DevConnectPG63** was used during compliance testing
- **Time Zone** Select the 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.

The screenshot shows the Avaya Aura System Manager 6.3 interface. The left sidebar contains a menu with 'SIP Entities' highlighted. The main content area is titled 'SIP Entity Details' and has a 'General' tab selected. The form fields are as follows:

- Name:** FlexiTID
- * FQDN or IP Address:** 10.10.60.91
- Type:** SIP Trunk
- Notes:** (empty text box)
- Adaptation:** (empty dropdown menu)
- Location:** DevConnectPG63
- Time Zone:** Europe/Dublin
- * SIP Timer B/F (in seconds):** 4

The 'Commit' button is highlighted with a red box.

7.3. Create an Entity Link for Flexi Tid Server

The SIP trunk between the Session Manager and the Flexi Tid 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. **FlexiTID to SM**)
- **SIP Entity 1** Select the Session Manager Entity from the **SIP Entity 1** dropdown box (**SM63vmpg** was the Session Manager Entity used during compliance testing)
- **Protocol** Select **TCP** from the Protocol dropdown box
- **Port** Enter **5060**
- **SIP Entity 2** Select **FlexiTID** from the **SIP Entity 2** dropdown box (configured in **Section 7.2**)
- **Port** Enter **5060** as the Port
- **Connection Policy** Select **Trusted**.

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

The screenshot shows the Avaya Aura System Manager 6.3 interface. The left sidebar contains a menu with options: Home, Routing, Domains, Locations, Adaptations, SIP Entities, Entity Links (selected), 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 of Entity Links with one item: 'FlexiTID to SM'. The table columns are: Name, SIP Entity 1, Protocol, Port, SIP Entity 2, DNS Override, Port, Connection Policy, Deny New Service, and Notes. The values for the first row are: 'FlexiTID to SM', 'SM63vmpg', 'TCP', '5060', 'FlexiTID', 'No', '5060', 'trusted', 'No', and an empty Notes field. A red box highlights the 'Commit' button in the top right corner of the table area.

Name	SIP Entity 1	Protocol	Port	SIP Entity 2	DNS Override	Port	Connection Policy	Deny New Service	Notes
* FlexiTID to SM	* SM63vmpg	TCP	* 5060	* FlexiTID	<input type="checkbox"/>	* 5060	trusted	<input type="checkbox"/>	

7.4. Create a Routing Policy for Flexi Tid Server

Create a Routing Policy to direct calls to the Flexi Tid server via the Session Manager. To add a Routing Policy, select **Routing Policies** on the left panel menu and then click on the **New** button (not shown). In the **Routing Policy Details** page, enter an informative name in the **Name** field (example, **To FlexiTID**) and enter **0** in the **Retries** field. In **SIP Entity as Destination** frame, click **Select**

AVAYA
Aura® System Manager 6.3

Last Logged on at January 29, 2014 12:49 PM
Help | About | Change Password | Log off Admin

Home Routing

Routing
Domains
Locations
Adaptations
SIP Entities
Entity Links
Time Ranges
Routing Policies
Dial Patterns
Regular Expressions
Defaults

Home / Elements / Routing / Routing Policies

Routing Policy Details

Commit Cancel

General

* Name: To FlexiTID

Disabled: ☐

* Retries: 0

Notes:

SIP Entity as Destination

Select

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

Once the **SIP Entity List** screen opens, check the **FlexiTID** 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.

AVAYA
Aura® System Manager 6.3

Last Logged on at January 29, 2014 12:49 PM
Help | About | Change Password | Log off Admin

Home Routing

Routing
Domains
Locations
Adaptations
SIP Entities
Entity Links
Time Ranges
Routing Policies
Dial Patterns

Home / Elements / Routing / Routing Policies

SIP Entities

Select Cancel

SIP Entities

9 Items Filter: Enable

Name	FQDN or IP Address	Type	Notes
FlexiTID	10.10.60.91	SIP Trunk	

7.5. Create a Dial Pattern for Flexi Tid Server

A Dial Pattern must be created on the Session Manager to route calls to and from the Flexi Tid server. During testing 2 numbers were used 4400 (used as the Flexi Tid queue number) and 3000 (used as the Flexi Tid Agent number). The example below only shows 4400, the Agent and any additional numbers are created the same way. To configure the Dial Pattern to route calls to the Flexi Tid server, select **Dial Patterns** on the left panel menu and then click on the **New** button (not shown).

Under **General** enter the following:

- **Pattern** Enter **4400**
- **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 dropdown box

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

The screenshot shows the Avaya Aura System Manager 6.3 interface. The left sidebar contains a menu with 'Dial Patterns' highlighted. The main content area is titled 'Dial Pattern Details' and includes a 'General' tab. The 'Pattern' field is set to '4400', 'Min' is '4', and 'Max' is '4'. The 'SIP Domain' dropdown is set to '-ALL-'. Below this, there is a section for 'Originating Locations and Routing Policies' with an 'Add' button and a table showing 0 items.

Originating Location Name	Originating Location Notes	Routing Policy Name	Rank	Routing Policy Disabled	Routing Policy Destination	Routing Policy Notes
0 Items						

In **Originating Location** check the **DevConnectPG63** (Location used in **Section 7.2**) check box. Under **Routing Policies** check the **To FlexiTID** 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.

The screenshot shows the Avaya Aura System Manager 6.3 interface. The left sidebar contains a navigation menu with options: Home, Routing, Domains, Locations, Adaptations, SIP Entities, Entity Links, Time Ranges, Routing Policies, Dial Patterns, Regular Expressions, and Defaults. The 'Routing' tab is selected, and the breadcrumb path is 'Home / Elements / Routing / Dial Patterns'. The main content area is divided into two sections: 'Originating Location' and 'Routing Policies'. In the 'Originating Location' section, there is a 'Select' button highlighted with a red box. Below it, a table lists one item: 'DevConnectPG63', which is also highlighted with a red box. In the 'Routing Policies' section, there is a table with 7 items. The first item, 'To FlexiTID', has a checked checkbox in the 'Disabled' column, and the 'FlexiTID' destination is selected.

8. Configure Flexi Tid Server

Configuration of the Flexi Tid server is achieved using a Web interface. After logging on to the Flexi Tid server, browse to **localhost:1339** using Internet Explorer 10 or google Chrome.

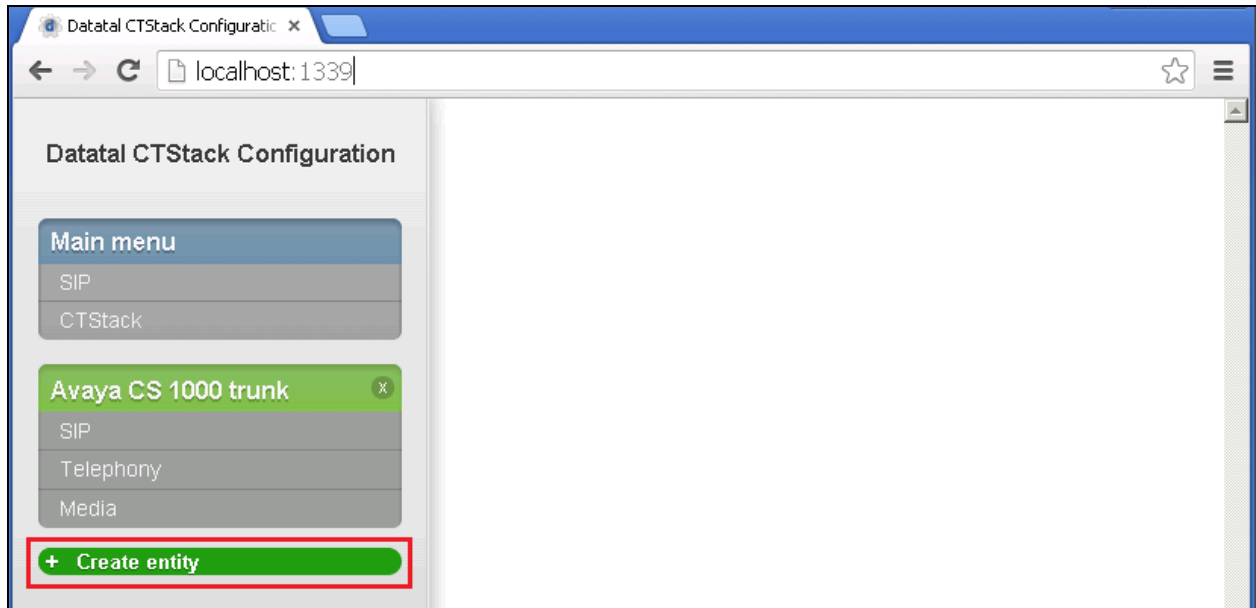
The following configuration steps were carried out during compliance testing:

- Configure entity for Avaya Communication Server 1000E
- Configure SIP
- Configure Telephony
- Configure Media

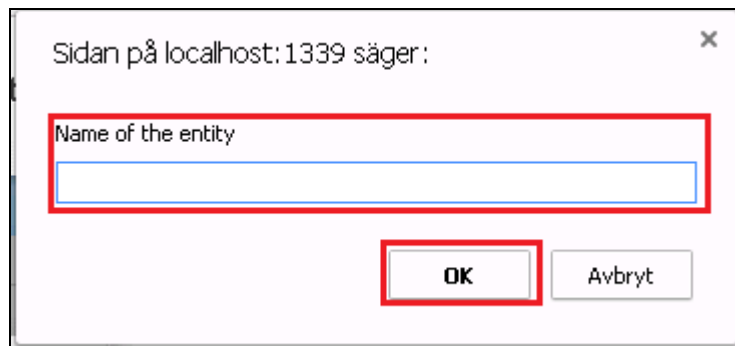
Note: It is implied that the Flexi Tid server is pre-configured including any Licence requirements.

8.1. Configure entity for Avaya Communication Server 1000E

Once the web page opens, select **Create entity**.

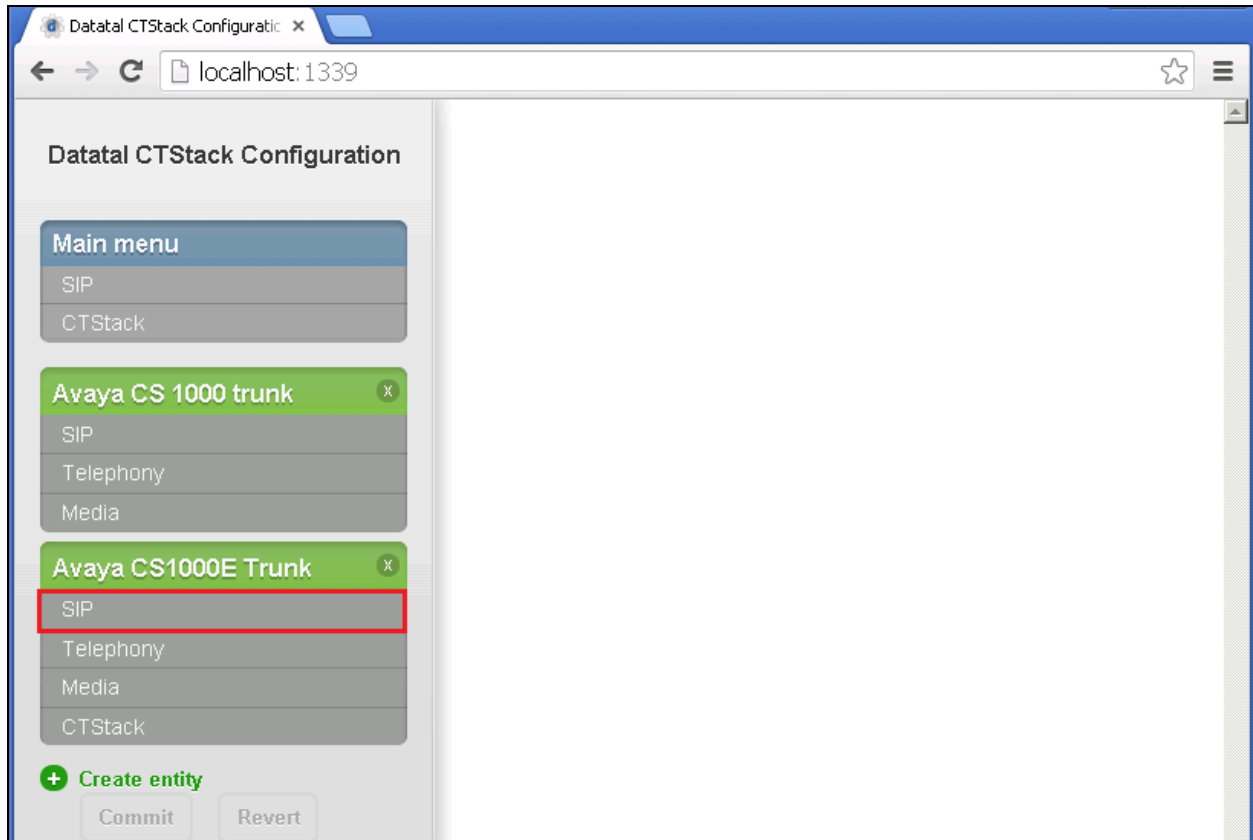


Once the new frame opens enter an informative name in the **Name of the entity** box (**Avaya CS1000E Trunk** was used during compliance testing). Click the **OK** button to save.

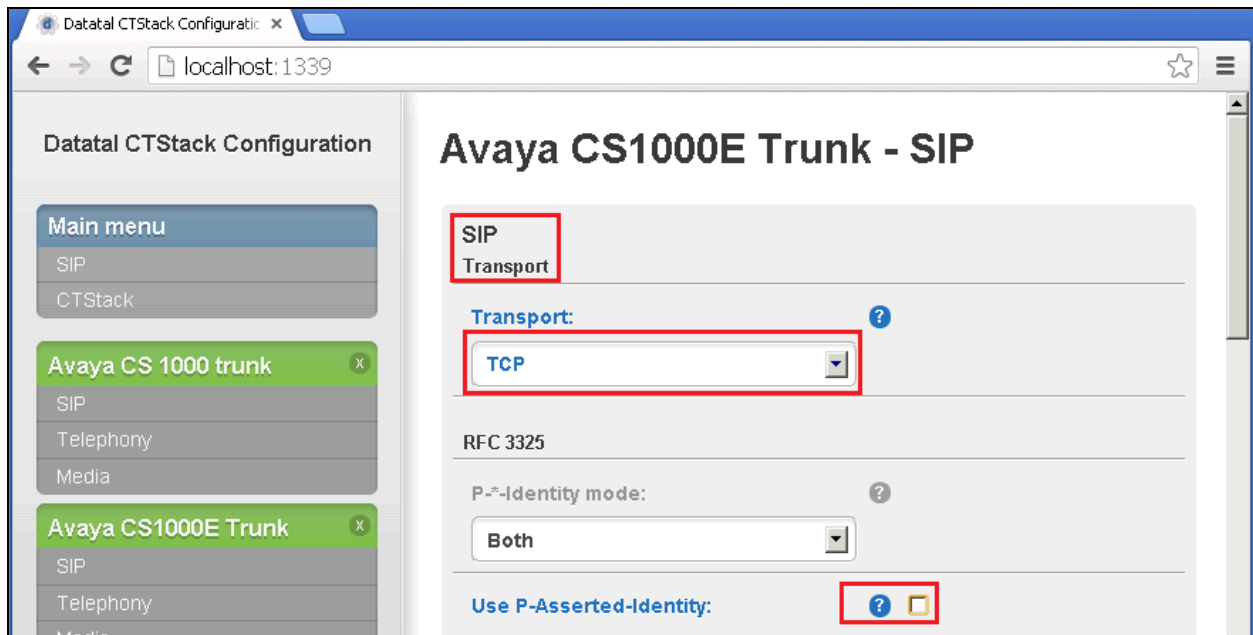


8.2. Configure SIP

After the entity is created the SIP configuration is required. Select **SIP**.

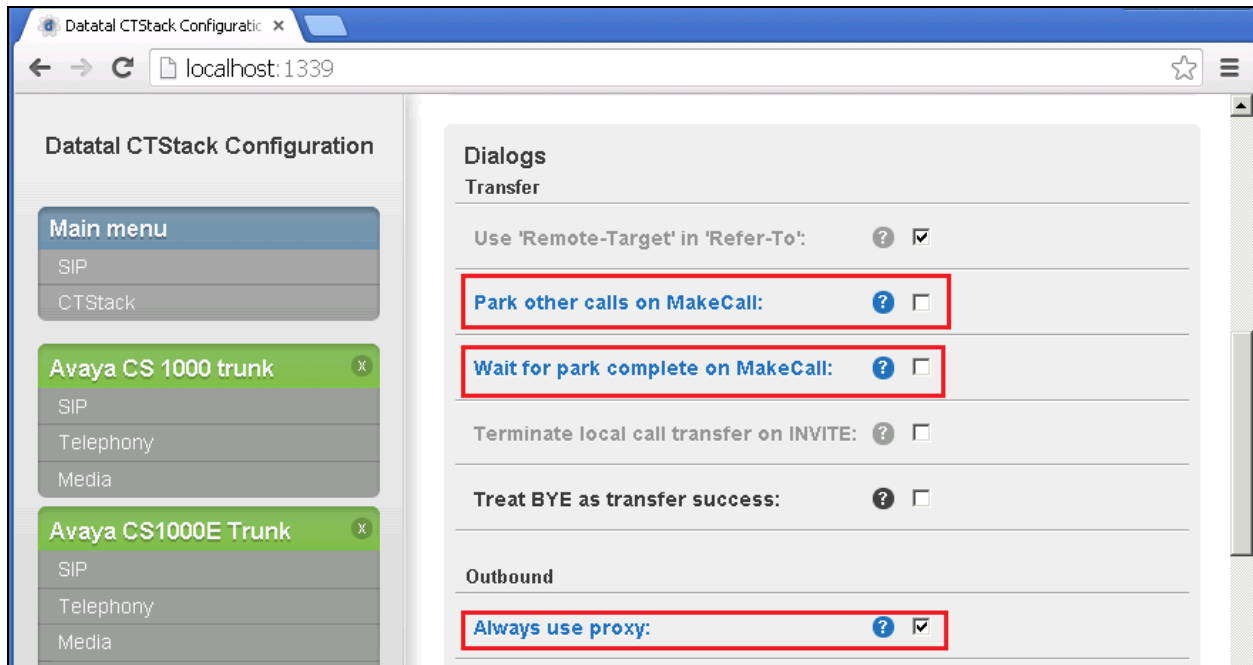


In the **SIP** page select **TCP** from the **Transport** dropdown box. Uncheck the **Use P-Asserted-Identity** check box.



Scroll down to **Dialogs** using the vertical scroll bar on the right side of the page, and enter the following:

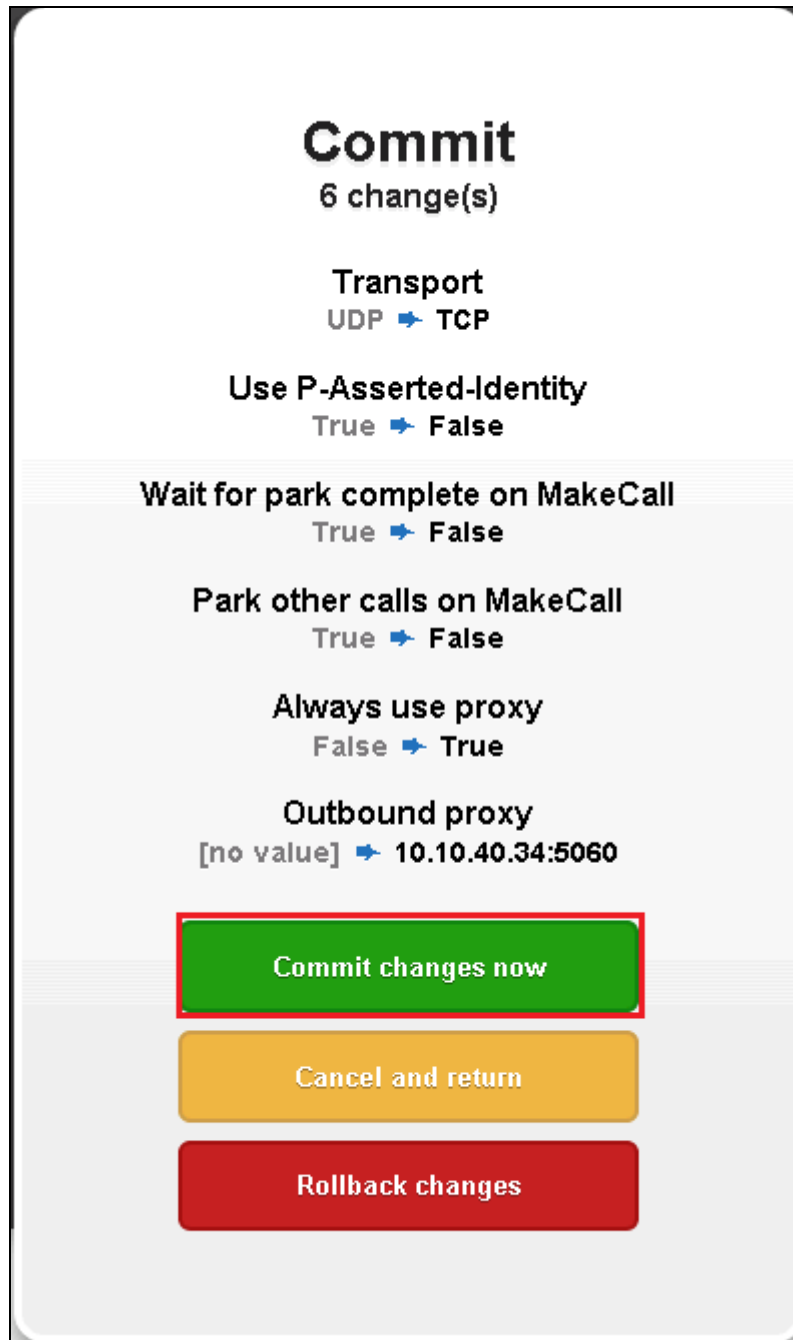
- Uncheck the **Park other calls on MakeCall:** check box
- Uncheck the **Wait for park complete on MakeCall:** check box
- Check the **Always use proxy:** check box



Continue to scroll down to **Outbound proxy:** and enter the IP address of the Session Manager and TCP port in the format **IP address:Port** (e.g. **10.10.40.34:5060**). Click the **Commit** button.

The screenshot displays the configuration interface for the Avaya CS1000E Trunk. On the left, a sidebar contains a 'Main menu' with 'SIP' and 'CTStack' options. Below this, two green tabs are visible: 'Avaya CS 1000 trunk' and 'Avaya CS1000E Trunk'. The 'Avaya CS1000E Trunk' tab is active, showing sub-options for 'SIP', 'Telephony', 'Media', and 'CTStack'. A green '+ Create entity' button is located below the tabs. At the bottom of the sidebar, it indicates '6 change(s) pending' and features 'Commit' and 'Revert' buttons. The main configuration area on the right includes sections for 'Terminate local call transfer on INVITE:', 'Treat BYE as transfer success:', 'Outbound', 'Dialogs', and 'Registrations'. The 'Outbound' section is expanded, showing 'Always use proxy:' checked and 'Outbound proxy:' set to '10.10.40.34:5060'. The 'Dialogs' section shows 'Always create early dialogs:' and 'Use OPTIONS for keep-alive:' both unchecked, and 'Retry-After 4xx:' set to '25'. The 'Registrations' section is partially visible at the bottom.

When the **Commit** dialog window opens click on **Commit changes now**.



Commit
6 change(s)

Transport
UDP ➔ TCP

Use P-Asserted-Identity
True ➔ False

Wait for park complete on MakeCall
True ➔ False

Park other calls on MakeCall
True ➔ False

Always use proxy
False ➔ True

Outbound proxy
[no value] ➔ 10.10.40.34:5060

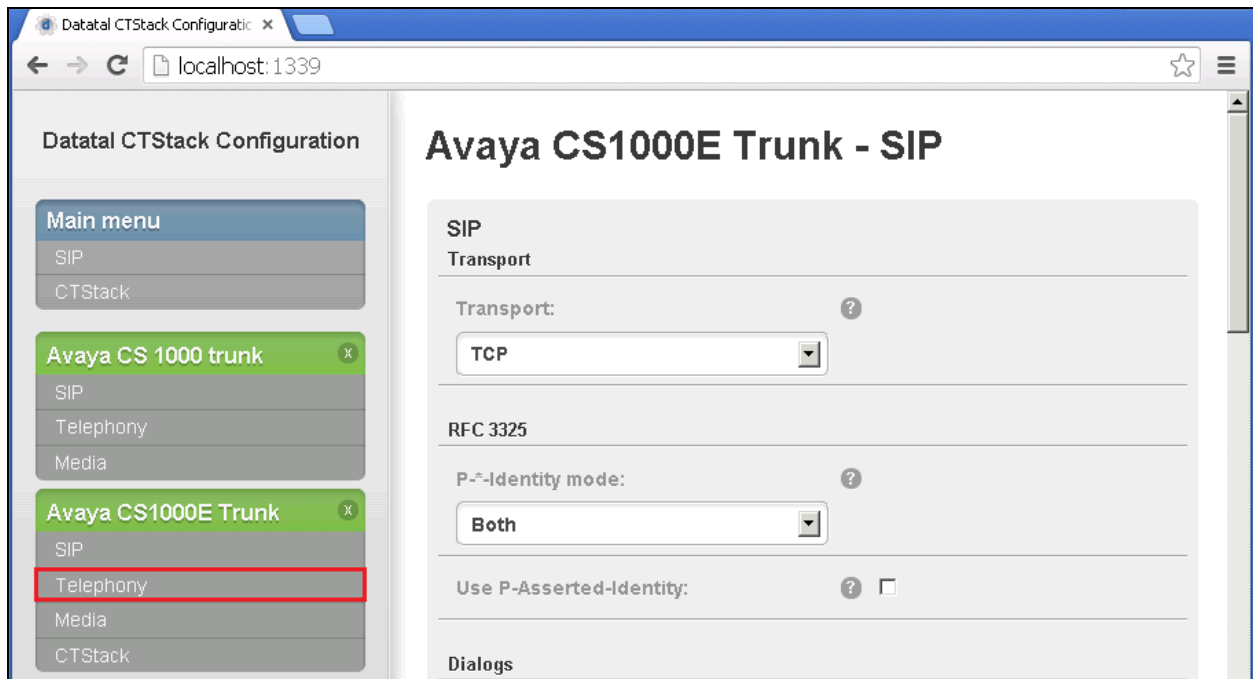
Commit changes now

Cancel and return

Rollback changes

8.3. Configure Telephony

To configure Telephony, click on **Telephony**.



When the **Telephony** window opens, enter the following:

- **Default domain:** Enter the Enterprise domain (during Compliance Testing the domain was **devconnect.local**)
- **Address** Enter the Flexi Tid Queue number (see **Section 5.1.2**)
- **Name** Enter an informative name for the Flexi Tid Server (e.g. **FlexiTID**)

Datatal CTStack Configuration

Avaya CS1000E Trunk - Telephony

SIP Address

Default domain:

Address:

Name:

Scroll down using the vertical scroll bar on the right side of the page, and check the **Trunk mode** check box and enter **30** in the **Lines** box. Click the **Commit** button.

Avaya CS 1000 trunk

Avaya CS1000E Trunk

+ Create entity

6 change(s) pending

Commit Revert

Default SIP URI host:

Trunk

Trunk mode: ☒

Line configuration

Standard

BlindCall source mode:

Lines:

INVITE expires:

When the **Commit** dialog window opens click on **Commit changes now**.

The image shows a 'Commit' dialog window with a light gray background and rounded corners. At the top, the title 'Commit' is in a large, bold, black font, followed by '6 change(s)' in a smaller font. Below this, there are several configuration items, each with a label and a value, separated by a blue arrow. The items are: 'Default domain' with value '[no value] → devconnect.local', 'Address' with value '[no value] → 4400', 'Name' with value '[no value] → FlexiTID', 'Default SIP URI host' with value '[no value] → devconnect.local', 'Trunk mode' with value 'False → True', and 'Lines' with value '0 → 30'. At the bottom of the dialog, there are three buttons: a green button with white text 'Commit changes now', a yellow button with black text 'Cancel and return', and a red button with white text 'Rollback changes'. The green button is highlighted with a red rectangular border.

Commit
6 change(s)

Default domain
[no value] → devconnect.local

Address
[no value] → 4400

Name
[no value] → FlexiTID

Default SIP URI host
[no value] → devconnect.local

Trunk mode
False → True

Lines
0 → 30

Commit changes now

Cancel and return

Rollback changes

8.4. Configure Media.

To configure Media, click on **Media**.

The screenshot shows a web browser window with the address bar displaying 'localhost:1339'. The page title is 'Datatal CTStack Configuration'. The left sidebar contains a 'Main menu' with options: 'SIP', 'CTStack', 'Avaya CS 1000 trunk', 'SIP', 'Telephony', 'Media', 'Avaya CS1000E Trunk', 'SIP', 'Telephony', 'Media', and 'CTStack'. The 'Media' option under 'Avaya CS1000E Trunk' is highlighted with a red box. Below the sidebar is a '+ Create entity' button. The main content area is titled 'Avaya CS1000E Trunk - Telephony' and contains the following configuration fields:

SIP	
Address	
Default domain:	<input type="text" value="devconnect.local"/>
Address:	<input type="text" value="4400"/>
Name:	<input type="text" value="FlexiTID"/>
Port:	<input type="text" value="5060"/>
Default SIP URI host:	<input type="text" value="devconnect.local"/>
Trunk	
Trunk mode:	<input checked="" type="checkbox"/>

When the **Media** window opens, enter the following:

- **Default RTP codec:** Select **PCMA** from the dropdown box
- **Send silent RTP frames** check the check box
- **OnHold attribute** Select **inactive** from the dropdown box
- **Ptime:** Select **20** from the dropdown box

Click on the **Commit** button. When the **Commit dialog** window opens, click on **Commit changes now** (not shown).

Datatal CTStack Configuration

localhost: 1339

Datatal CTStack Configuration

Main menu

SIP

CTStack

Avaya CS 1000 trunk

SIP

Telephony

Media

Avaya CS1000E Trunk

SIP

Telephony

Media

CTStack

+ Create entity

Commit Revert

datatal ab

Avaya CS1000E Trunk - Media

Codec
RTP

Default RTP codec:
PCMA

RTP
Audio

Send silent RTP frames: ☒

SDP
Media

OnHold attribute:
inactive

ptime:
20

9. Verification Steps

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

1. Make a call to the Flexi Tid queue number. Ensure the call is connected.
2. Make a call to the Flexi Tid queue number and request a call back.
3. Make a call from the Flexi Tid 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. Flexi Tid from Datatal AB is considered compliant with Avaya Communication Server 1000E 7.6 via an Avaya Aura® Session Manager 6.3. 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 obtained 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® Session Manager, Release 6.3, Issue 3 October 2013*
- [4] *Administering Avaya Aura® System Manager, Release 6.3, Issue 3, October, 2013*

Product Documentation for Flexi Tid can be obtained from Datatal AB at: www.datatal.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

```

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)

```

ENABLED PLUGINS : 2

PLUGIN	STATUS	PRS/CR_NUM	MPLR_NUM	DESCRIPTION
201	ENABLED	Q00424053	MPLR08139	Pl: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

©2014 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.