Avaya Solution & Interoperability Test Lab

Application Notes for IPC Alliance 16 with Avaya Aura® Communication Manager 6.3 via QSIG, and Avaya Aura® Messaging 6.3 via Avaya Aura® Session Manager 6.3 in a Centralized Messaging Environment – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for IPC Alliance 16 to interoperate with Avaya Aura® Communication Manager via QSIG, and Avaya Aura® Messaging 6.3 via Avaya Aura® Session Manager 6.3 in a centralized messaging environment.

IPC Alliance 16 is a trading communication solution. In the compliance testing, IPC Alliance MX used E1 QSIG trunks to Avaya Aura® Communication Manager, for IPC turret users to obtain voice messaging services from Avaya Aura® Messaging. E1 QSIG trunks were used from IPC Alliance 16 to Avaya Aura® Communication Manager, and SIP trunks were used from Avaya Aura® Communication Manager to Avaya Aura® Session Manager to reach Avaya Aura® Messaging. The Avaya Aura® Messaging system in the Central site supported local subscribers from Avaya Aura® Communication Manager at the Central site, and from IPC turret users at the Remote site.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the configuration steps required for IPC Alliance 16 to interoperate with Avaya Aura® Communication Manager via QSIG, and Avaya Aura® Messaging 6.3 via Avaya Aura® Session Manager 6.3 in a centralized messaging environment.

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2. General Test Approach and Test Results

The feature test cases were performed manually. Calls were manually established among IPC turret users with Avaya SIP, Avaya H.323, PSTN users, and/or the Avaya Aura® Messaging voicemail pilot to verify various call scenarios. The Avaya Aura® Messaging Web Subscriber Options web-based interface was used to configure subscriber features such as Call Me.

The serviceability test cases were performed manually by disconnecting and reconnecting the E1 connection to IPC.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing included subscriber login, greeting, voice message, message waiting indicator, call forward, multiple call forward, personal operator, live attendant, find me (reach me), notify me (call me), call sender, transfer, and vector.

The serviceability testing focused on verifying the ability of IPC Alliance 16 to recover from adverse conditions, such as disconnecting/reconnecting the E1 connection to IPC Alliance 16.

2.2. Test Results

All test cases were executed and passed. The following were the observations from the compliance testing.

- IPC does not offer the Coverage feature, therefore coverage to voicemail for the turret users were accomplished by setting the Aura® Messaging pilot number as the Call Forwarding destination for the users.

2.3. Support

Technical support on IPC Alliance 16 can be obtained through the following:

- **Phone:** (800) NEEDIPC, (203) 339-7800
- **Email:** systems.support@ipc.com

3. Reference Configuration

As shown in the test configuration below, IPC Alliance 16 system at the Remote Site consisted of the System Center, Switching Center and Turrets. E1 QSIG trunks were used from the switching center to Avaya Aura® Communication Manager, and SIP trunks were used from Avaya Aura® Communication Manager to Avaya Aura® Session Manager to reach Avaya Aura® Messaging. In the test configuration, QSIG allowed IPC turret users at the Remote Site to "cover" to Avaya Aura® Messaging at the Central site for voice messaging services.

The configuration of Avaya Aura® Session Manager is performed via the web interface of Avaya Aura® System Manager. The detailed administration of basic connectivity among Avaya Aura® Communication Manager, Avaya Aura® Session Manager, and Avaya Aura® Messaging is not the focus of these Application Notes and will not be described. These Application Notes will focus on the additional configuration required to support IPC turret users as local subscribers on Avaya Aura® Messaging.

The detailed administration of E1 QSIG trunks between Avaya Aura® Communication Manager and IPC Alliance 16, to enable IPC turret users to reach users on Avaya Aura® Communication Manager and on the PSTN, is assumed to be in place with details described in [3].

A five digit Uniform Dial Plan (UDP) was used to facilitate dialing between the Central and Remote sites. Unique extension ranges were associated with Avaya Aura® Communication Manager user(s) at the Central site (720xx), and IPC turret users at the Remote site (333xx). The Avaya Aura® Messaging pilot number was 7777.

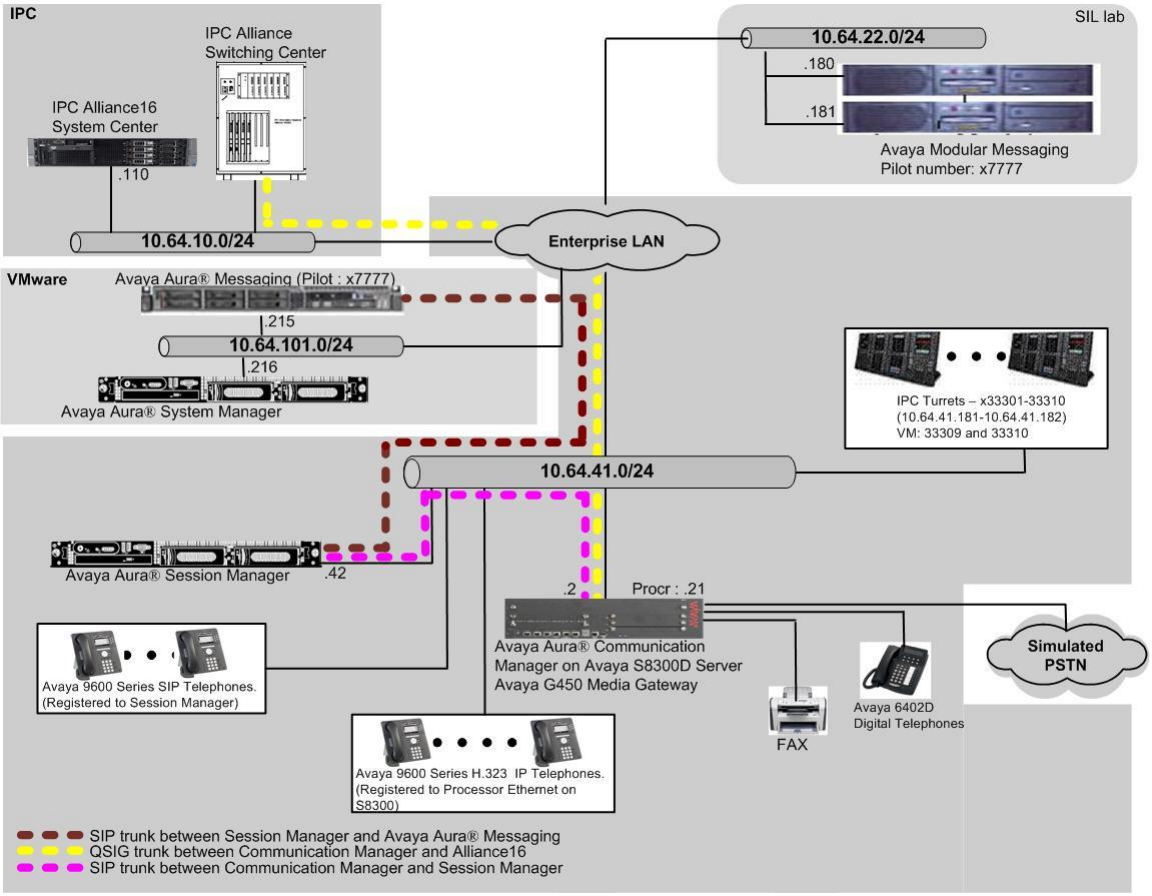


Figure 1: Test Configuration of IPC Alliance with Avaya Aura® Messaging

4. Equipment and Software Validated

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

Equipment	Software
Avaya Aura® Messaging	6.3 (S016x.03.0.124-21591)
Avaya Aura® Communication Manager on Avaya S8300D Server	6.3 (R016x.03.0.124.0-21754)
Avaya G450 Media Gateway	36.9
Avaya Aura® Session Manager	6.3.9.0.639011
Avaya Aura® System Manager	6.3.9
Avaya 9600 Series IP Telephone (H.323)	3.2.2
Avaya 96x1 Series IP Telephone (H.323)	6.2.3
Avaya 9600 Series IP Telephone (SIP)	2.6.12
Avaya 96x1 Series IP Telephone (SIP)	6.4.1
IPC Alliance 16 • One Management System (OneMS)	16.02.01.09

5. Configure Avaya Aura® Communication Manager

For a QSIG trunk configuration between Communication Manager and IPC Alliance, please refer to [3]. Otherwise, there is no special configuration in Communication Manager.

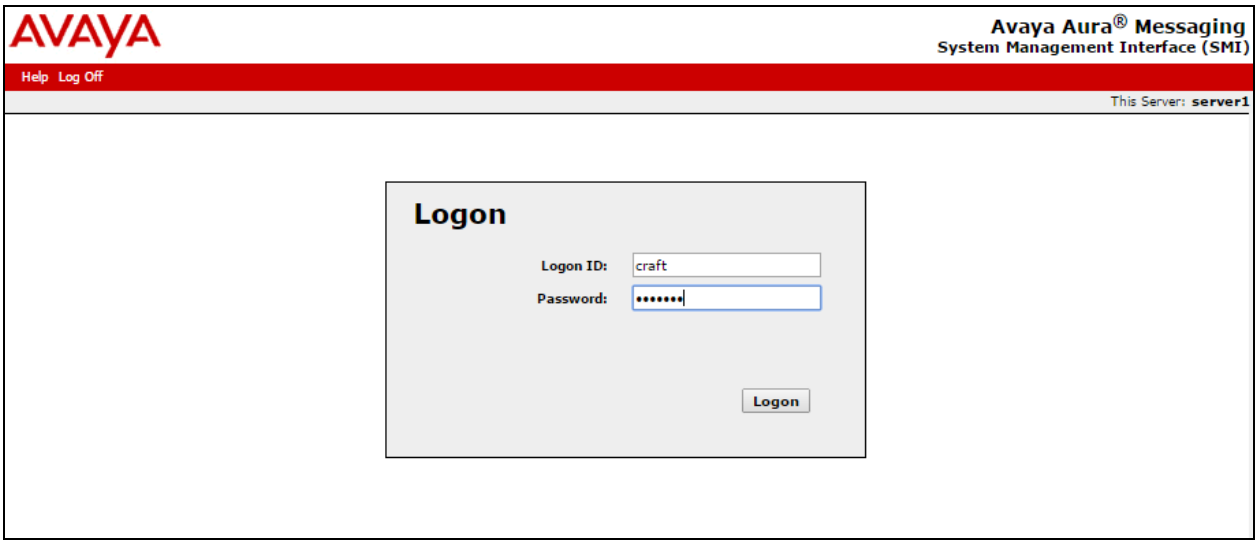
6. Configure Avaya Aura® Messaging

This section provides the procedures for configuring IPC turret users as local subscribers on Avaya Aura® Messaging. The configuration procedures include the following areas:

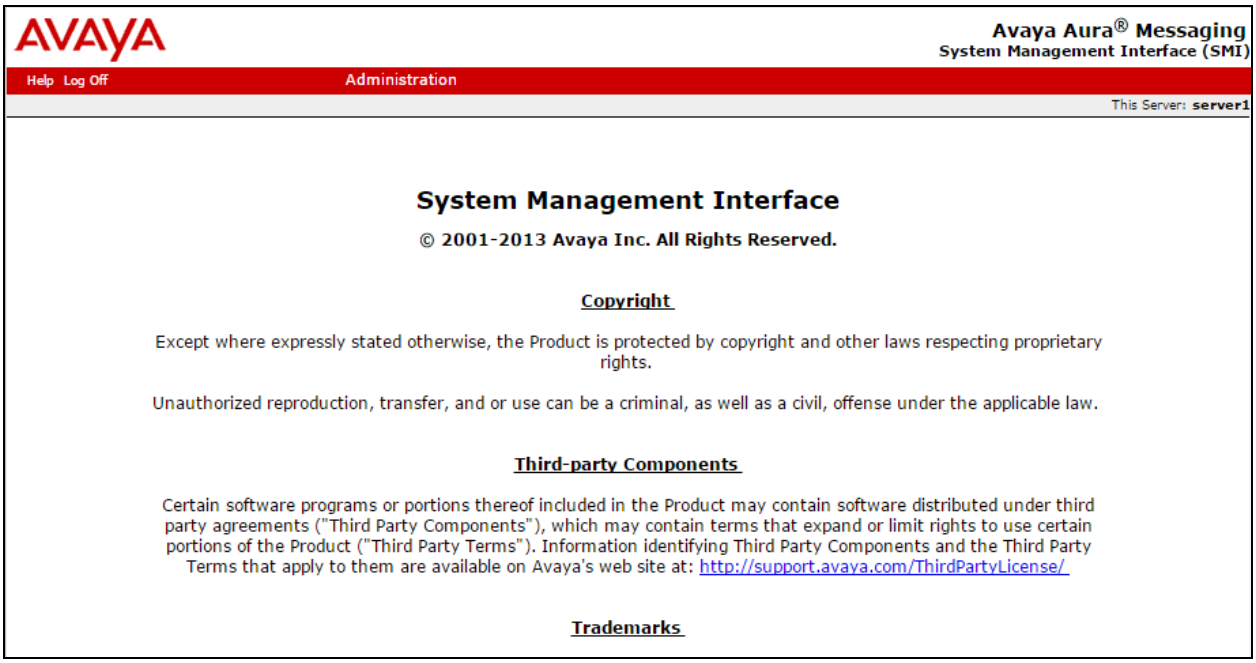
- Launch messaging administration
- Administer subscriber extension ranges
- Administer subscribers

6.1. Launch Messaging Administration

Access the Avaya Aura® Messaging web interface by using the URL http://ip-address in an Internet browser window, where "ip-address" is the IP address of the Avaya Aura® Messaging server. The **Logon** screen is displayed. Log in using a valid user name and password. The **Password** field will appear after a value is entered into the **Username** field.

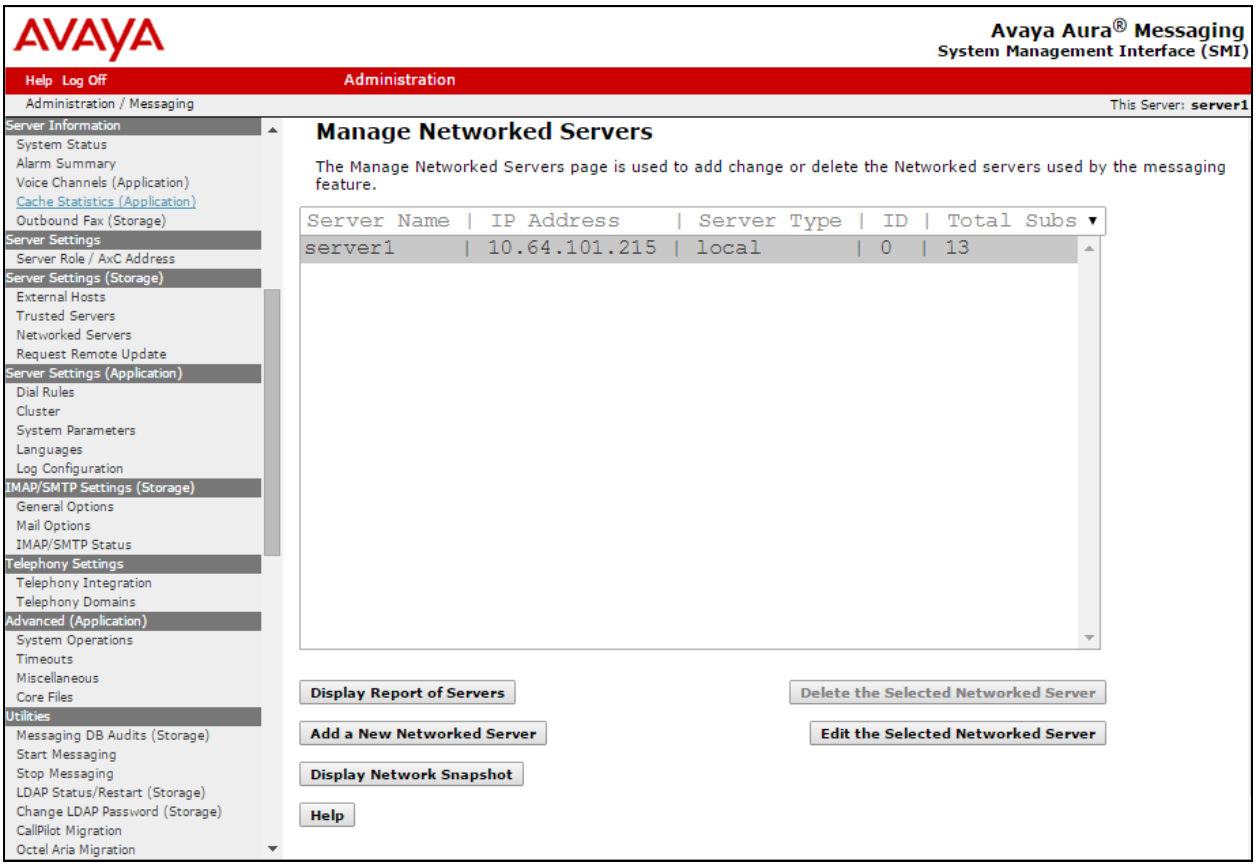


The **Messaging Administration** screen appears, as shown below. Navigate to **Administration → Messaging**.



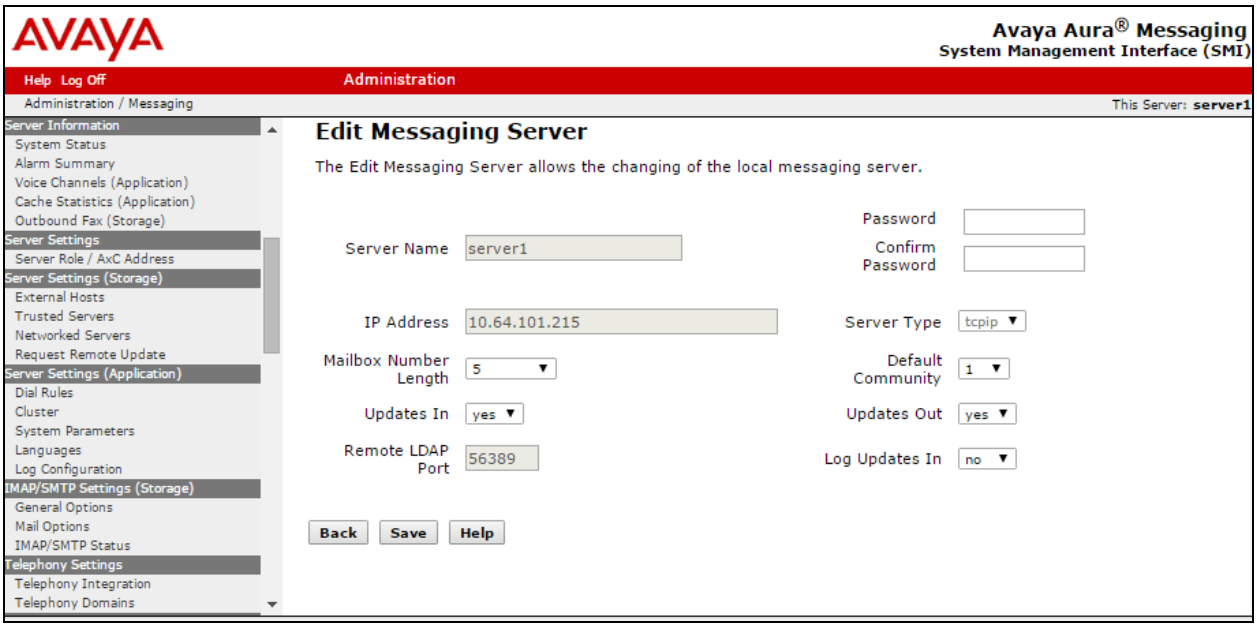
6.2. Administer Subscriber Extension Ranges

On the Messaging Administration page (not shown) select **Server Settings (Storage) → Networked Servers** from the left pane, to display the **Manage Networked Servers** screen. Select the Avaya Aura® Messaging server from the table listing, and click **Edit the Selected Networked Server** toward the bottom right of the screen.



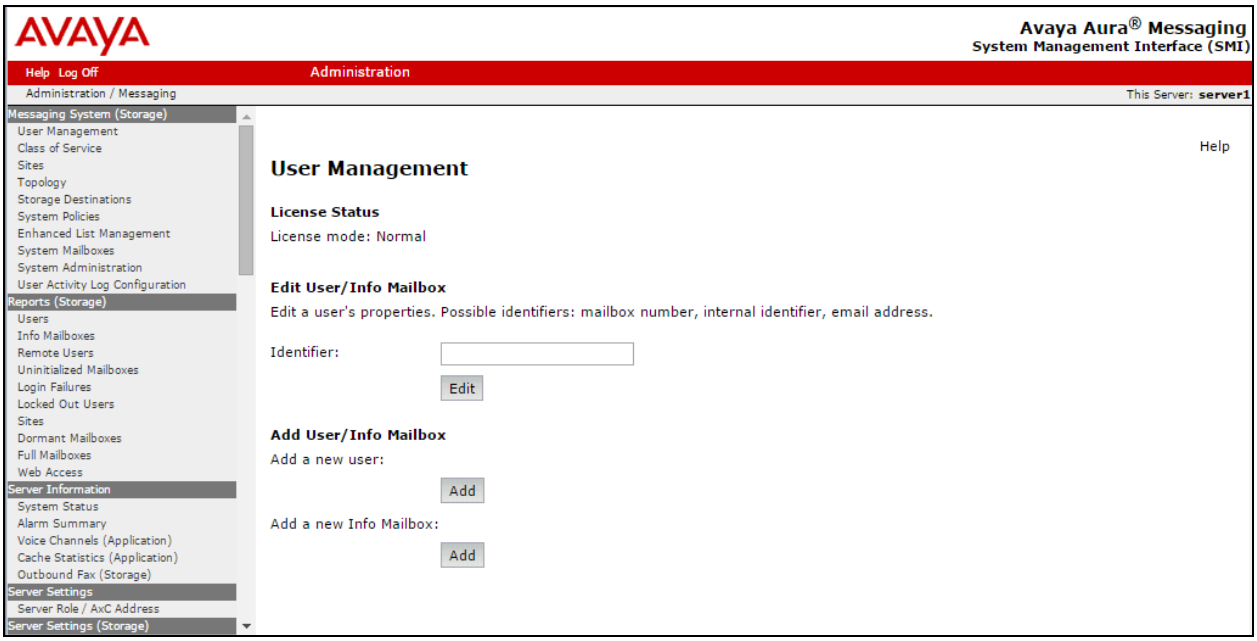
The **Edit Messaging Server** screen is displayed. Select **5** using drop-down menu on the **Mailbox Number Length** field. In the compliance test, the 5 digit extensions were used by Avaya Aura® Messaging.

Click on **Save** at the bottom of the screen.



6.3. Administer Subscribers

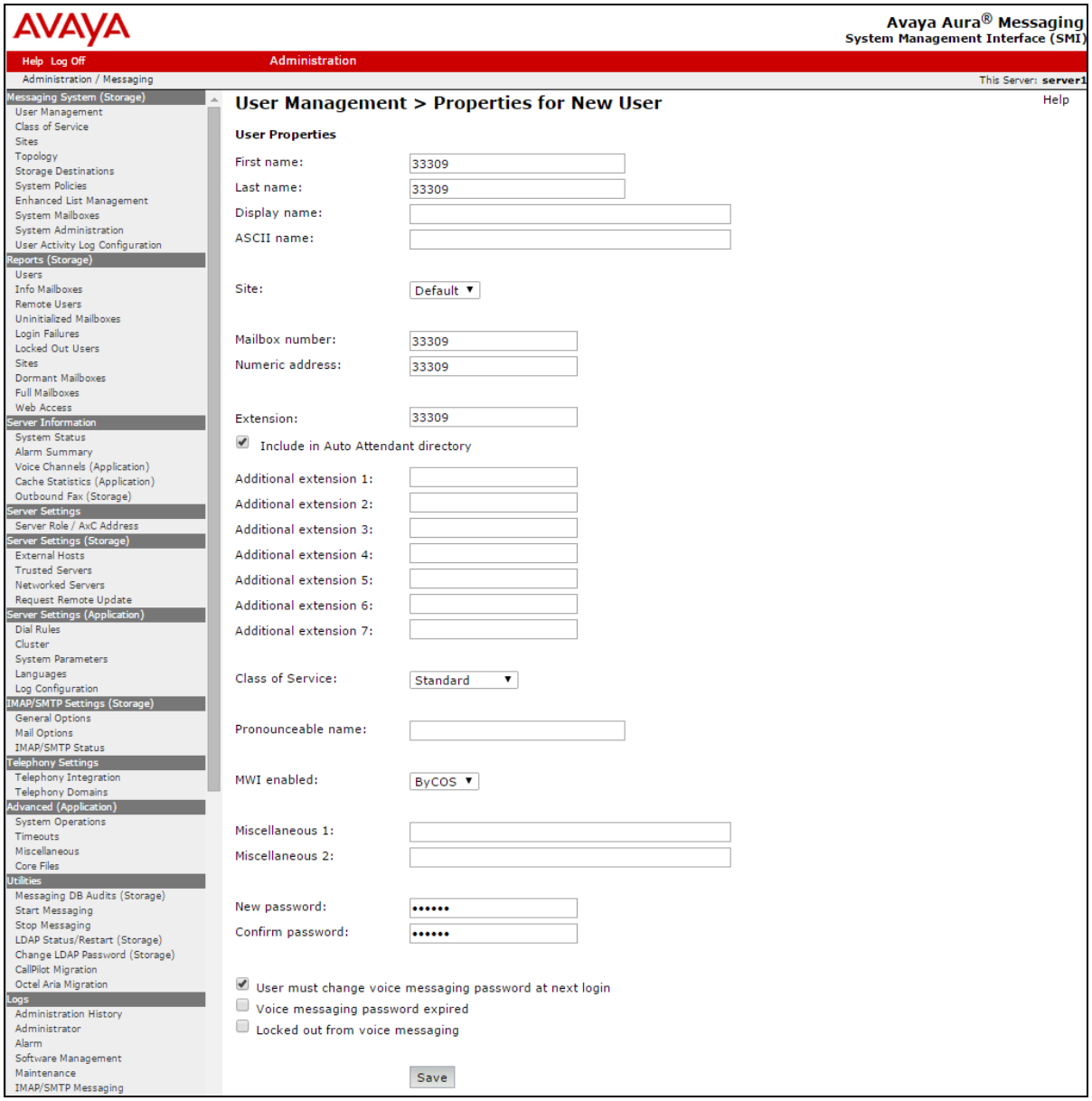
Select **Messaging System (Storage) → User Management** from the left pane, to display the **User Management** screen. Click **Add** under the **Add a new user** section.



The **User Management > Properties for New User** screen is displayed next. Enter the desired string into the **First Name**, **Last Name**, and **Password** fields.

In the compliance testing, the same telephone extensions for the IPC subscribers were used for the **Mailbox number, Numeric address,** and **Extension** fields. Select the appropriate **Class of Service**, and retain the default values in the remaining fields.

Scroll down to the bottom of the screen and click **Save**.



Repeat this section to add all IPC subscribers. During the compliance test, 33309 and 33310 were used.

7. Configure Avaya Aura® Session Manager

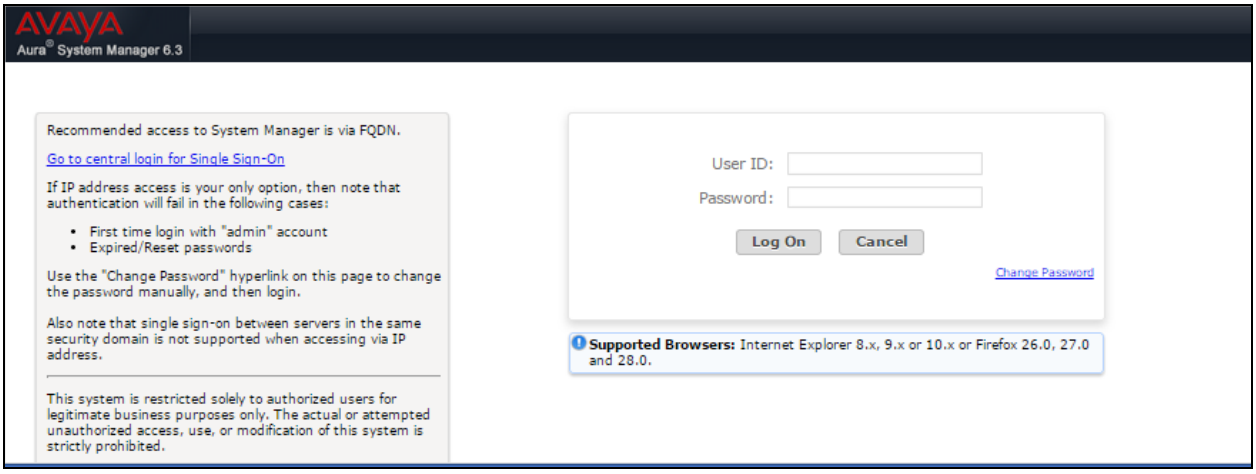
This section provides the procedures for configuring Avaya Aura® Session Manager. The procedures include the following areas:

- Launch System Manager
- Administer dial patterns

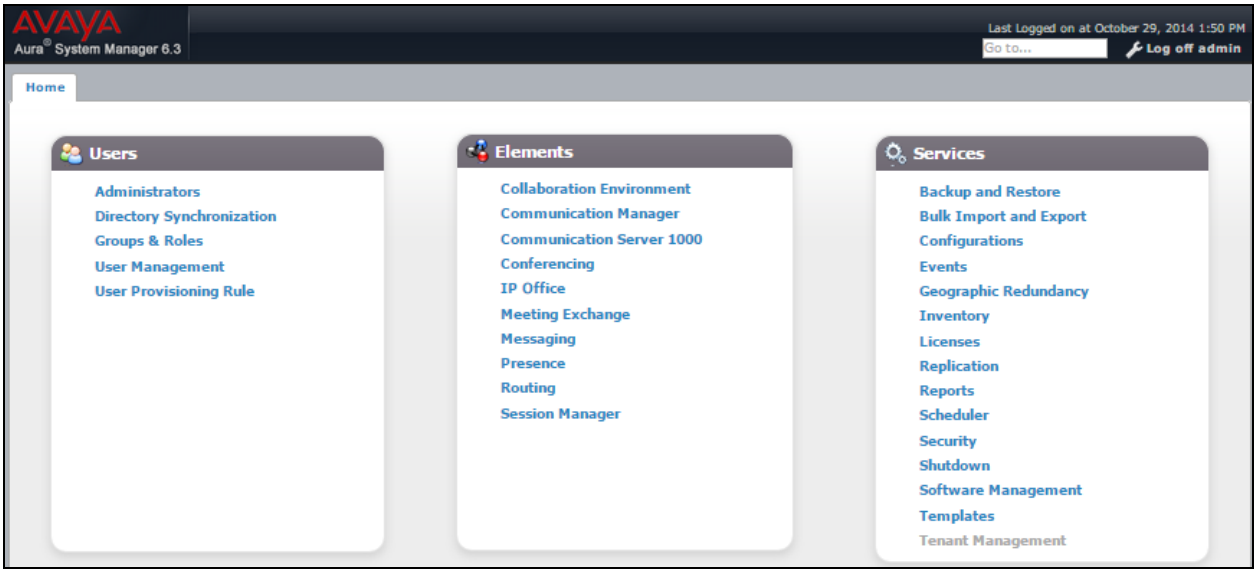
7.1. Launch System Manager

Access the System Manager Web interface by using the URL http://ip-address in an Internet browser window, where "ip-address" is the IP address of the System Manager server. Log in using the appropriate credentials.

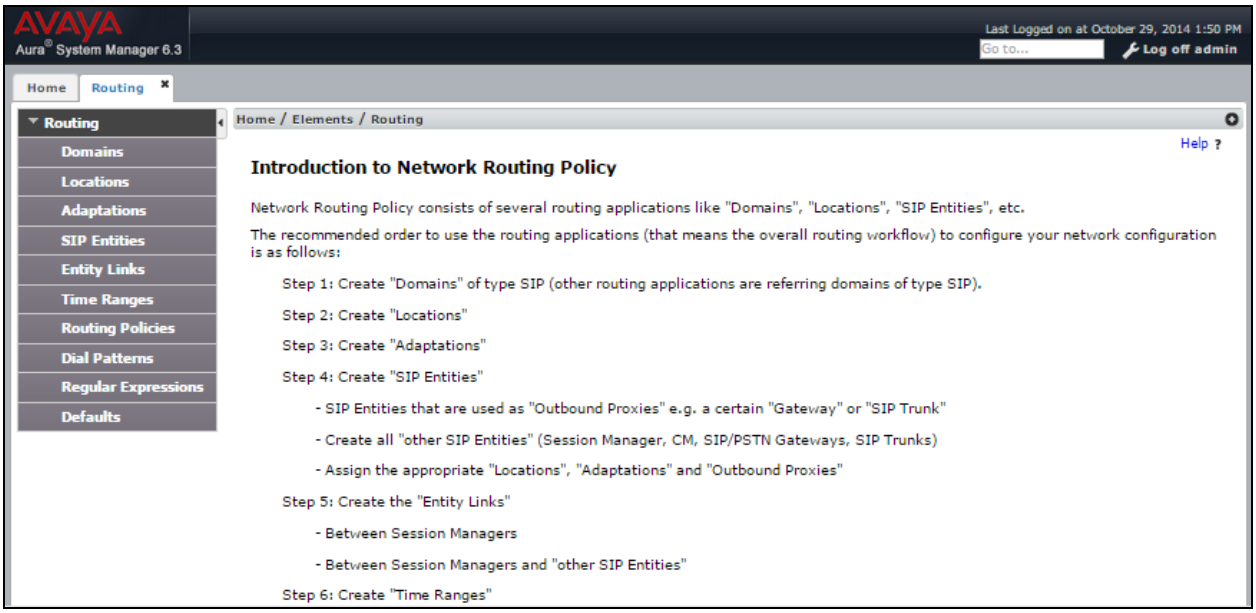
Note: During the compliance the System Manager was installed onVMware.



The **Main** screen is displayed. Navigate to **Elements → Routing**



The **Introduction to Network Routing Policy** screen is displayed next.
Navigate to **Routing → Dial Patterns** from the left pane.



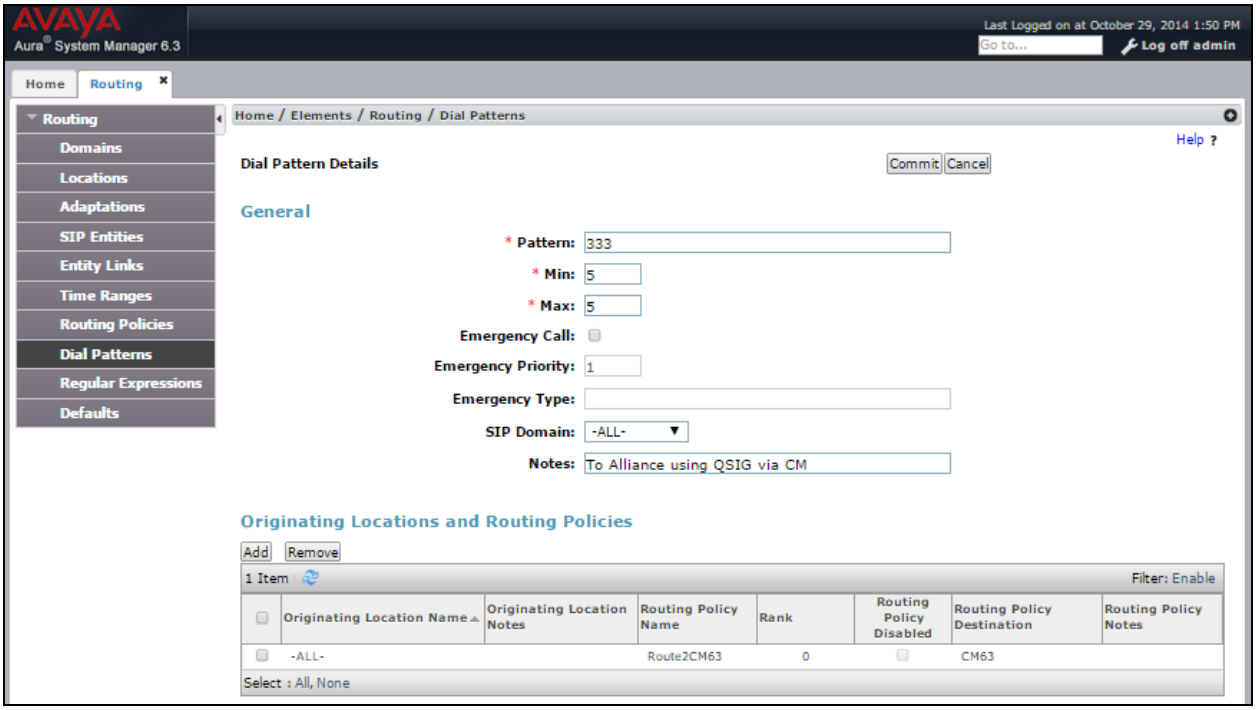
7.2. Administer Dial Patterns

On the **Dial Pattern Details** screen, click **New** in the subsequent screen (not shown) to add a new dial pattern for Aura® Messaging to reach IPC turret users.

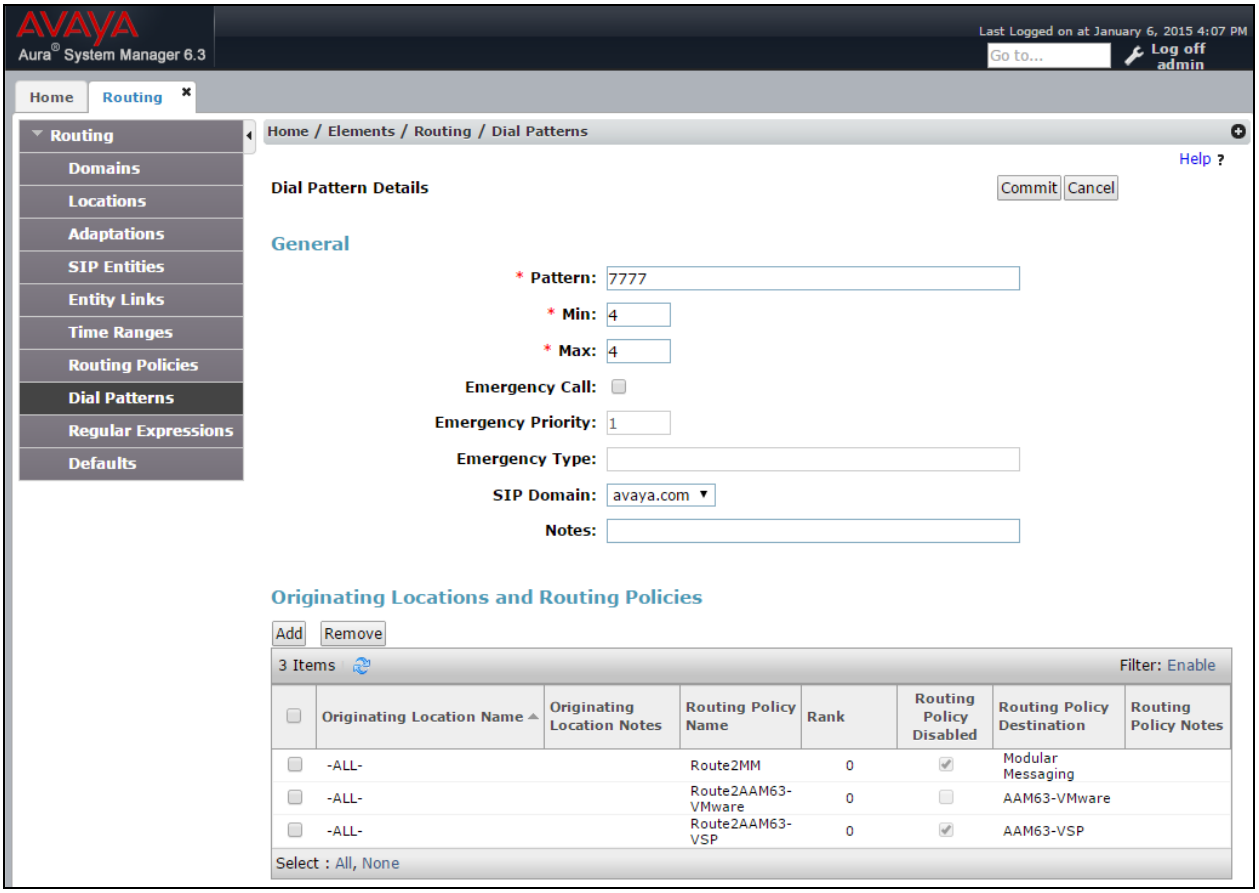
The **Dial Pattern Details** screen is displayed. In the **General** sub-section, enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Pattern:** A dial pattern to match.
- **Min:** The minimum number of digits to be matched.
- **Max:** The maximum number of digits to be matched.
- **SIP Domain:** Select the applicable SIP domain for the relevant Communication Manager.
- **Notes:** Any desired description.

In the **Originating Locations and Routing Policies** sub-section, click **Add** and create a new policy for reaching IPC turret users with extensions 333xx. In the compliance testing, "Apply The Selected Routing Policies to All Originating Locations" was selected as the Originating Location, and the Routing Policies is set to Route2CM63.. Retain the default values in the remaining fields. Aura® Messaging will dial out to IPC turret users for features such as Call Sender, and the call will be delivered as SIP from Aura® Messaging to Session Manager, and SIP from Session Manager to Communication Manager, and then QSIG from Communication Manager to Alliance 16.



The following screen shows the dial pattern for the pilot number, 7777, to Aura® Messaging.



8. Configure IPC Alliance 16

For the compliance test, no special configuration is needed for the IPC Alliance 16. For a QSIG trunk configuration between Communication Manager and IPC Alliance, please refer to [3].

9. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura® Communication Manager, Avaya Aura® Messaging, Avaya Aura® Session Manager, and IPC Alliance 16.

Place a call from an IPC turret user to the Aura® Messaging pilot number. Verify that Aura® Messaging recognizes the calling party as a local subscriber.

10. Conclusion

These Application Notes describe the configuration steps required for IPC Alliance 16 to successfully interoperate with Avaya Aura® Messaging 6.3 and Avaya Aura® Session Manager 6.3 in a centralized messaging environment using QSIG trunks to Avaya Aura® Communication Manager 6.3. All feature and serviceability test cases were completed with an observation noted in **Section 2.2**.

11. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Administering Avaya Aura® Communication Manager*, Document 03-300509, Release 6.3, Issue 10, June 2014, available at http://support.avaya.com

2. *Administering Avaya Aura® Messaging*, Release 6.3.2, Issue 1, December 2014, available at http://support.avaya.com

3. *Application Notes for IPC Alliance 16 with Avaya Aura® Communication Manager 6.3 using QSIG Trunks*, Issue 1.0

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.