

Avaya Solution & Interoperability Test Lab

Application Notes for IPC Alliance 15.03 with Avaya Modular Messaging 5.2 and Avaya Aura® Session Manager 6.3 in a Centralized Messaging Environment using SIP Trunks – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for IPC Alliance 15.03 to interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Session Manager 6.3 in a centralized messaging environment using SIP trunks to Avaya Aura® Session Manager.

IPC Alliance is a trading communication solution. In the compliance testing, IPC Alliance used SIP trunks to Avaya Aura® Session Manager, for IPC turret users to obtain voice messaging services from Avaya Modular Messaging. The Avaya Modular 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 15.03 to interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Session Manager 6.3 in a centralized messaging environment using SIP trunks to Avaya Aura® Session Manager.

IPC Alliance is a trading communication solution. In the compliance testing, IPC Alliance used SIP trunks to Avaya Aura® Session Manager, for IPC turret users to obtain voice messaging services from Avaya Modular Messaging. The Avaya Modular 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.

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 Modular Messaging voicemail pilot to verify various call scenarios. The Avaya Modular 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 LAN connection to the IPC Enterprise SIP Server (ESS).

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, auto attendant, find me, call me, call sender, and transfer.

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

2.2. Test Results

All test cases were executed. 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 Modular Messaging pilot number as the Call Forwarding destination for the users.
- The following Modular Messaging features are not supported in this solution, since they do not work as expected. It is recommended they are not enabled.
 - <u>Receptionist / Personal Operator</u>: Issues were encountered when using the Receptionist/Personal Operator function provided by Modular Messaging. The "extension does not answer" message was heard when turret is the set to Auto Attendant.
 - Auto Attendant: Issues were encountered when using the Auto attendant function provided by Modular Messaging. The "extension does not answer" message was heard when turret is the set to Auto Attendant.
 - <u>Find Me:</u> In some cases (after the call goes to Find Me destination station), the Find Me destination station presses "#" to accept the call, and the "Connecting Caller" message was heard. However, the Find Me destination station goes disconnect. The calling party is still connected to VM.
 - o <u>Call Sender:</u> In some cases, a calling party, or calling and called party, are disconnected after the call is transferred.
- In some instances, Direct IP-to-IP media (also known as "shuffling") with SIP and H.323 telephones did not work. It is recommended that Direct IP-to-IP media be disabled on the IPC Turret endpoints.

These items were not deemed significant to fail the solution, and are listed here for user awareness. Testing of the sample configuration was completed with successful results for the IPC System Interconnect solution.

2.3. Support

Technical support on IPC Alliance 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, **Figure 1**, IPC Alliance consists of the Enterprise SIP Server (ESS), Alliance MX, System Center, and Turrets. SIP trunks are used from IPC Alliance to Session Manager, to reach Avaya Modular Messaging for voice messaging services.

The detailed administration of basic connectivity among Communication Manager, Session Manager, and Avaya Modular Messaging is not the focus of these Application Notes and will not be described.

The configuration of Session Manager is performed via the web interface of System Manager. The detailed administration of SIP trunks among Communication Manager, Session Manager, and IPC Alliance, to enable IPC turret users to reach users on Communication Manager and on the PSTN, is assumed to be in place with details described in [4].

These Application Notes will focus on the additional configuration required to support IPC turret users as local subscribers on Avaya Modular Messaging.

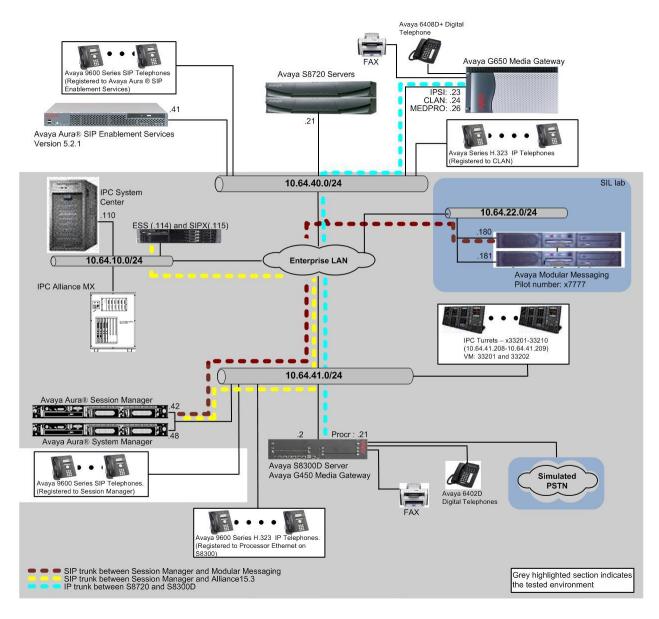


Figure 1: Test Configuration of IPC Alliance system with Avaya Modular Messaging

4. Equipment and Software Validated

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

Equipment	Software				
 Avaya Modular Messaging Messaging Storage Server Messaging Application Server 	5.2 SP9 5.2 SP9				
Avaya Aura® Communication Manager on Avaya S8300D Server	6.3.4 (R016x.03.0.124-21291)				
Avaya Aura® Session Manager	6.3.5.0.635005				
Avaya Aura® System Manager	6.3.5.5.2017				
 Avaya G650 Media Gateway TN799DP C-LAN Circuit Pack TN2302AP IP Media Processor 	HW01 FW038 HW20 FW122				
Avaya A175 Desktop Video Device (SIP)	Hardware – 2.0				
Avaya 96xx IP Telephone (H.323)	3.1				
Avaya 96xx IP Telephone (SIP)	2.6.4				
 IPC Alliance Alliance MX Enterprise SIP Server System Center SIPX Line Card Turrets 	SipProxy-2.01.00-03 15.03.00.23 15.03.00.23 15.03.00.23 15.03.00.22 15.03.01.04.0005				

5. Configure Avaya Modular Messaging MSS

This section provides the procedures for configuring IPC turret users as local subscribers on Avaya Modular Messaging. The subscriber management is configured on the Messaging Storage Server (MSS) component. The configuration procedures include the following areas:

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

5.1. Launch Messaging Administration

Access the MSS web interface by using the URL "http://ip-address" in an Internet browser window, where "ip-address" is the IP address of the MSS 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.

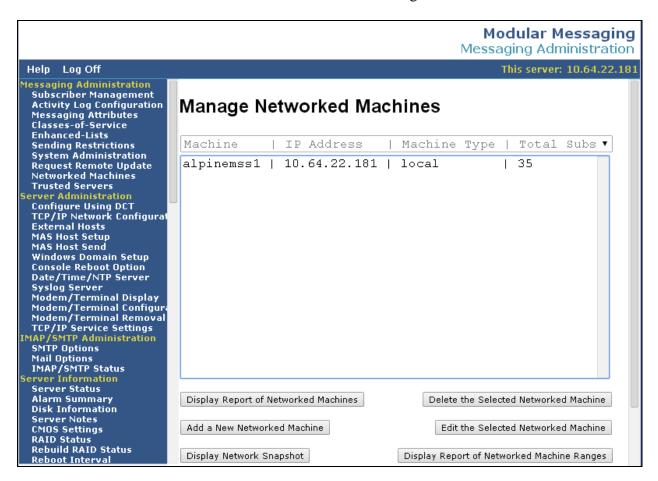


The **Messaging Administration** screen appears, as shown below.



5.2. Administer Subscriber Extension Ranges

Select Messaging Administration \rightarrow Networked Machines from the left pane, to display the Manage Networked Machines screen. Select the MSS server from the table listing, and click Edit the Selected Networked Machine toward the bottom right of the screen.

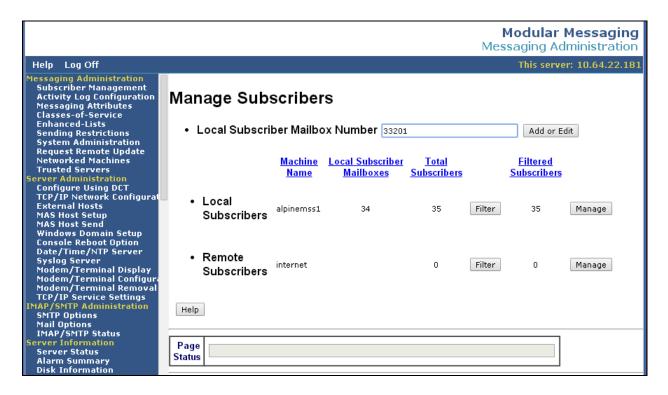


The **Edit Networked Machine** screen is displayed. Under the **MAILBOX NUMBER RANGES** section, locate an available entry line and enter the desired starting and ending mailbox numbers to be used for the IPC subscribers as necessary. In the compliance testing, the existing entry covered the 332xx extensions used by the IPC turret users.

Modular Messaging Messaging Administration									
Help Log Off This server: 10.64.22.181									
Messaging Administration Subscriber Management Activity Log Configuration Messaging Attributes Classes-of-Service Enhanced-Lists	Edit Networked Machine								
Sending Restrictions System Administration Request Remote Update Networked Machines Trusted Servers Server Administration	Machine Name	alpinemss1		Password Confirm Password					
Configure Using DCT TCP/IP Network Configurat	IP Address	10.64.2	2.181	Machine Type		tcpip ▼			
External Hosts MAS Host Setup MAS Host Send Windows Domain Setup	<u>Mailbox Number</u> <u>Length</u>	5 🔻		Default Community		1 🔻			
Console Reboot Option Date/Time/NTP Server	<u>Updates In</u>	yes ▼		<u>Updates Out</u>		yes ▼			
Syslog Server Modem/Terminal Display Modem/Terminal Configura	LDAP Port	56389		Log Updates		no 🔻			
Modem/Terminal Removal TCP/IP Service Settings IMAP/SMTP Administration	0P/SMTP (depinistration								
SMTP Options Mail Options	MAILBOX NUMBER RANGE	5							
IMAP/SMTP Status Server Information	<u>Prefix</u>		Starting Mailbox Number		Ending Mailbox Number				
Server Status			20000		29999				
Disk Information Server Notes	Server Notes CMOS Settings RAID Status		72001		79999				
CMOS Settings RAID Status Rebuild RAID Status			33301		33310				
Reboot Interval Utilities			42001		49999				
Rebuild RAID 1 Array			33201		33210				

5.3. Administer Subscribers

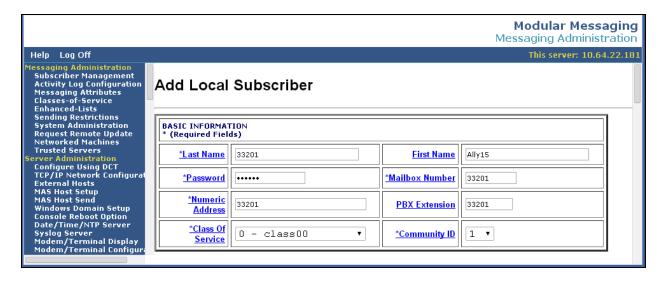
Select Messaging Administration → Subscriber Management from the left pane, to display the Manage Subscribers screen. For the Local Subscriber Mailbox Number field toward the top of the screen, enter the first IPC turret user extension to add as a local subscriber, in this case "33201". Click Add or Edit.



The **Add Local Subscriber** screen is displayed next. Enter the desired string into the **Last Name**, **First 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 PBX 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** (not shown). Repeat this section to add all IPC subscribers.



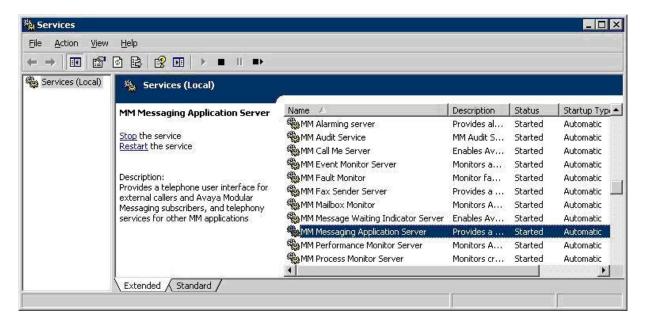
6. Configure Avaya Modular Messaging MAS

This section provides the procedures for configuring the Avaya Messaging Application Server (MAS) servers. A change is needed on each MAS server, to set the way Modular Messaging reads the SIP History Information records for proper integration with IPC. Note that enabling this setting has an impact on the proper identification of calling party number for Vectoring call scenarios.

From the first MAS server, navigate to the C:\Avaya_Support\Registry_Keys directory, and double-click on CalledPartyAlgorithm-Orig.reg.



Select Start > Settings → Control Panel → Administrative Tools → Services, to display the Services screen. Navigate to the MM Messaging Application Server entry, right-click on the entry and select Restart. Repeat these procedures on all MAS servers.



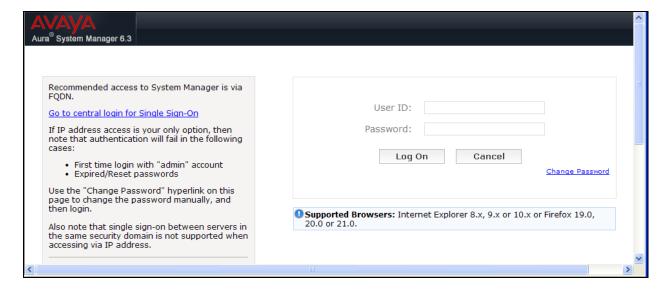
7. Configure Avaya Aura® Session Manager

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

- Launch System Manager
- Administer dial patterns

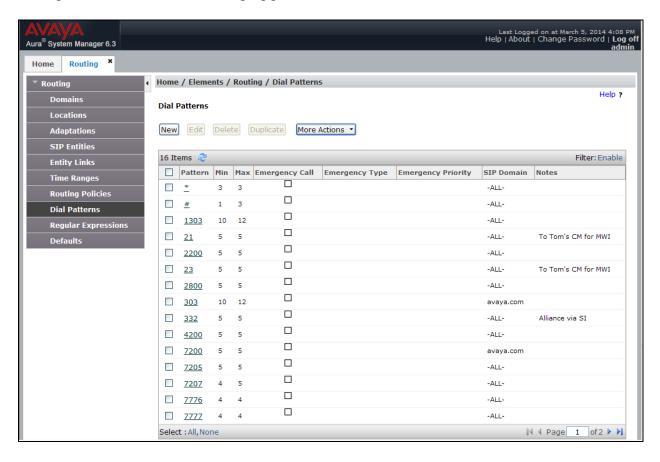
7.1. Launch System Manager

Access the System Manager web interface by using the URL "https://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.

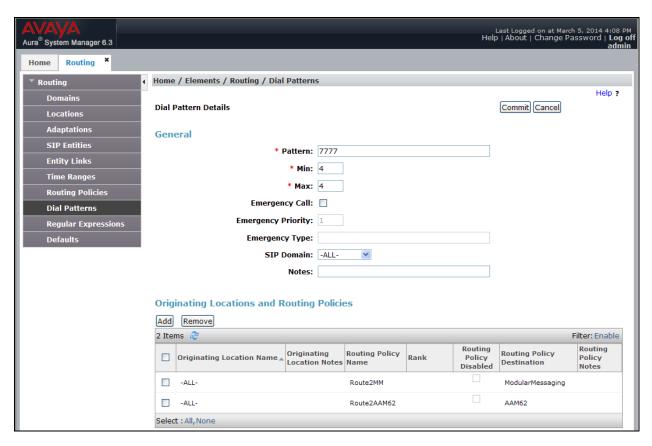


7.2. Administer Dial Patterns

In the subsequent screen (not shown), select **Elements** → **Routing** to display the **Introduction** to **Network Routing Policy** screen (not shown). Click **Routing** → **Dial Patterns** from the left pane to display the **Dial Patterns** screen (not shown). Locate and click on the dial pattern that corresponds to the Modular Messaging pilot number, in this case "7777".



The **Dial Pattern Details** screen is displayed. In the **Originating Locations and Routing Policies** sub-section, add or modify the entry as desired to allow IPC turret users to reach Modular Messaging. In the compliance testing, a new entry was created to allow for call origination from the existing IPC location, as shown below.



8. Configure IPC Alliance

This section provides the procedures for configuring IPC Alliance. The procedures include the following areas:

- Launch One Management System
- Administer voicemail buttons

The configuration of IPC Alliance is typically performed by IPC installation technicians. The procedural steps are presented in these Application Notes for informational purposes.

8.1. Launch One Management System

Access the System Center web interface by using the URL <a href="http://<ip-address>/webadmin">http://<ip-address>/webadmin in an Internet browser window, where <ip-address> is the IP address of IPC System Center. Log in using the appropriate credentials.

In the Log In: Warning Notice screen, check I accept the conditions, and click Log In.



In the **Log In: Enter Credentials** screen, enter the appropriate credentials and click **Log In**. In the subsequent **Log In: Login Information** screen (not shown), click **Continue**.



8.2. Administer Voicemail Buttons

The screen below is displayed next, with the **Main Menu** screen in the forefront. Select **Trader Config** \rightarrow **Buttons** \rightarrow **Add Buttons** (not shown).



The **Add Button: Enter Details** screen is displayed. Provide the following information:

• TRID: Enter the ID of the trader whose button sheet is being configured,

in this case "123". During the compliance test, two turrets were

utilized (TRID: 122 and 123).

• Button Number: Enter a button numbers. Button number, 33 and 35 on TRID 123

turret, were configured for Voicemails

• Class: Select "MODULE BUTTON"

• Type: Select "VOICE MAIL"

• Voice Mail System Access Number: For the compliance test, entered "7776PP#33201"

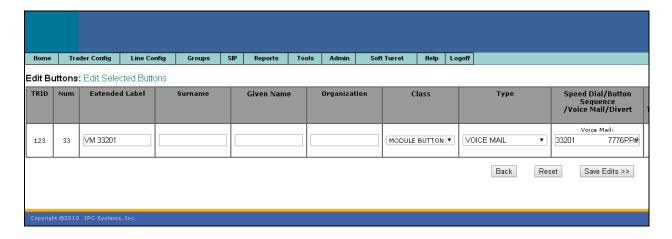
• Voice Mail Extension Number: Enter the subscriber extension number, in this case

"33201"

After entering above values, click **Add Buttons**.

							Site Name: Address: Current Use iView:	CURLY ICM Site interop active	:e 00 Enterprise Site II Release: <u>Users</u> :		10: 0 15 1
Home	Trader Config	Line Config	Groups	SIP	Reports	Tools	Admin	Soft Turret	Help	Logoff	
Add Buttons: Enter Button Details											
1. Select Station Type											
● IQ/MAX ○ BRI ○ IQMX											
	Specify Traders TRID(s): 123		Trader G	roup: [AII	•					
			<u>ITAUEL C</u>	<u>лоир</u> . [All						
	Enter Button Detail Button Number:	S	33								
	Class:		MODUL	F BUTT	ON ▼						
	<u>Type</u> :		VOICE		V						
	Site ID:		1								
	Voice Mail System	Access Number:	7776PP:	#33201#	#						
	Voice Mail Extension	on Number:	33201								
	Config. Notes:						<u>C</u>	onfig. Lock:			
	Extended Label:										
	<u>Surname</u> :										
	Given Name:										
	Organization:										
	Distinguished Name	Į:									
			Back	Re	set .	Add Buttons	>>				

The **following** screen displays the updated button information. Repeat this for all trade users. In the compliance testing, two voicemail buttons for IPC subscriber extensions "33201" and "33202" were created on each of the two trade users.



9. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Modular Messaging, Avaya Aura® Session Manager, and IPC Alliance 15.03.

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

10. Conclusion

These Application Notes describe the configuration steps required for IPC Alliance 15.03 to successfully interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Session Manager 6.3 in a centralized messaging environment using SIP trunks to Avaya Aura® Session Manager. All feature and serviceability test cases were completed with observations 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, Release 6.3, October 2013, Issue 9, Document Number 03-300509
- [2] Administering Avaya Aura® Session Manager, Release 6.3, October 2013, Issue 3, Document Number03-603324
- [3] Administering Avaya Aura® System Manager, Release 6.3, October 2013, Issue 3

The following document was provided by IPC

[4] *Nexus Suite* 2.0 SP1 Patch11 or Higher Deployment Guide, Part Number B02200161, Revision Number 01, available upon request to IPC Support.

©2014 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and TM 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.