

Avaya Solution & Interoperability Test Lab

Application Notes for IPC UnigyV2 with Avaya Modular Messaging 5.2 and Avaya Aura® Communication Manager 6.2 in a Centralized Messaging Environment using QSIG Trunks – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for IPC UnigyV2 to interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Communication Manager 6.2 in a centralized messaging environment using QSIG trunks to Avaya Aura® Communication 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

These Application Notes describe the configuration steps required for IPC UnigyV2 to interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Communication Manager 6.2 in a centralized messaging environment using QSIG trunks to Avaya Aura® Communication Manager.

IPC UnigyV2 is a trading communication solution. In the compliance testing, IPC UnigyV2 used E1 QSIG trunks to Avaya Aura® Communication Manager, for IPC turret users to obtain voice messaging services from Avaya Modular Messaging. E1 QSIG trunks were used from IPC UnigyV2 to Avaya Aura® Communication Manager, and T1 QSIG trunks were used from Avaya Aura® Communication Manager to reach 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 E1 connection to IPC UnigyV2.

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 UnigyV2 to recover from adverse conditions, such as disconnecting/reconnecting the E1 connection to IPC UnigyV2.

2.2. Test Results

All test cases were executed. The following were the observations on IPC UnigyV2 from the compliance testing.

- IPC does not offer the Coverage feature, therefore coverage to voicemail for the turret users was accomplished by setting the Modular Messaging pilot number as the Call Forwarding destination for the users.
- For all multiple call forward scenarios involving calls forwarded to the called party's
 forward-to extension and then covered subsequently to Modular Messaging based on the
 coverage setting at the forward-to extension, the greeting for the forward-to party will be
 played instead of the original called party due to the called number not being passed by IPC
 for diverted calls.

2.3. Support

Technical support on IPC UnigyV2 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 UnigyV2 at the Remote Site consisted of the Media Manager/Converged Communication Manager, Media Gateway, and Turrets. E1 QSIG trunks were used from IPC UnigyV2 to Avaya Aura® Communication Manager, and T1 QSIG trunks were used from Avaya Aura® Communication Manager to Avaya Modular Messaging. In the test configuration, QSIG allowed IPC turret users at the Remote Site to "cover" to Avaya Modular Messaging at the Central site for voice messaging services.

The Avaya Aura® Session Manager was used in the configuration to support Avaya SIP endpoints, and the configuration of Avaya Aura® Session Manager was 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 Modular Messaging is not the focus of these Application Notes and will not be described.

The detailed administration of E1 QSIG trunks between Avaya Aura® Communication Manager and IPC UnigyV2, 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.

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

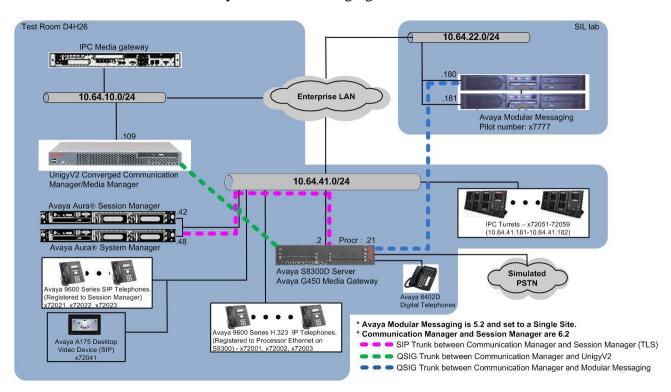


Figure 1: Test Configuration of IPC UnigyV2

4. Equipment and Software Validated

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

Equipment	Software	
Avaya Modular Messaging in S3500 Server • Messaging Storage Server • Messaging Application Server	5.2 SP9 P4 5.2 SP9 P4	
Avaya Aura® Communication Manager on Avaya S8300D Server	R016x.02.0.823.0.20001	
Avaya G450 Media Gateway • TN464HPDS1 Interface	HW02 FW024	
Avaya Aura® Session Manager	6.2.2.0.622005	
Avaya Aura® System Manager	6.2.12.202	
Avaya A175 Desktop Video Device (SIP)	1.0.2	
Avaya 96xx IP Telephone (H.323)	3.1	
Avaya 96xx IP Telephone (SIP)	2.6.8	
IPC UnigyV2		
 Media Manager Converged Communication Manager Media Gateway Turrets 	02.00.00.00.1495 02.00.00.00.1495 6.40A.042.004 02.00.00.00.1495	

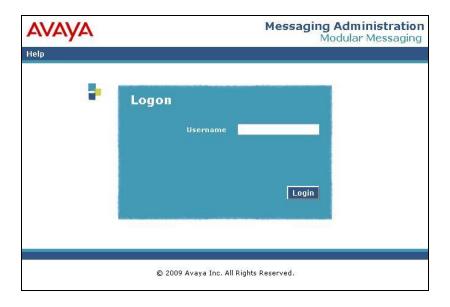
5. Configure Avaya Modular Messaging MSS

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.

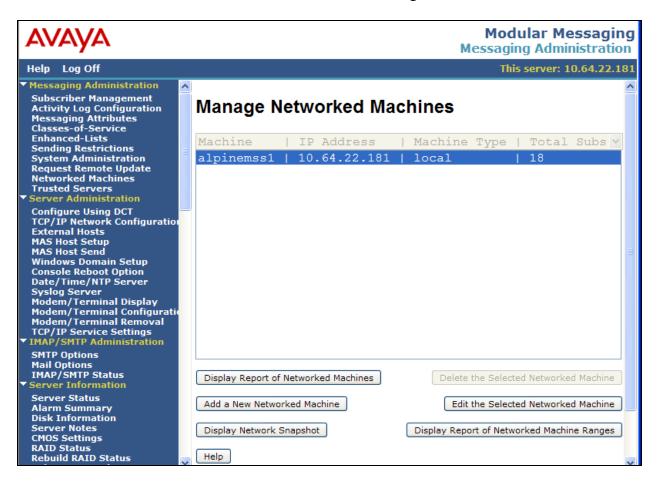


The **Messaging Administration** screen appears, as shown below.



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.

AVAYA		Modular Messaging Messaging Administration			
Help Log Off			This serv	er: 10.64.22.181	
▼ Messaging Administration Subscriber Management Activity Log Configuration Messaging Attributes Classes-of-Service Enhanced-Lists	Edit Networked Machine				
Ennanced-Lists Sending Restrictions System Administration Request Remote Update Networked Machines Trusted Servers Server Administration Configure Using DCT TCP/IP Network Configuration External Hosts MAS Host Setup MAS Host Setup Windows Domain Setup Console Reboot Option Date/Time/NTP Server Syslog Server Modem/Terminal Display	Machine Name	alpinemss1	Password Confirm Password		
	IP Address	10.64.22.181	Machine Type	tcpip V	
	Mailbox Number Length	5 💌	<u>Default Community</u>	1 🔻	
	<u>Updates In</u>	yes 🕶	<u>Updates Out</u>	yes 🕶	
	LDAP Port	56389	Log Updates In	no 🔻	
Modem/Terminal Configuration Modem/Terminal Removal TCP/IP Service Settings	MAILBOX NUMBER RANGES				
▼ IMAP/SMTP Administration SMTP Options	<u>Prefix</u>	Starting Mailb	ox Number Ending	Mailbox Numbe	
Mail Options IMAP/SMTP Status		00000	99999		
▼ Server Information					
Server Status Alarm Summary Disk Information					
Server Notes CMOS Settings RAID Status					
Rebuild RAID Status					
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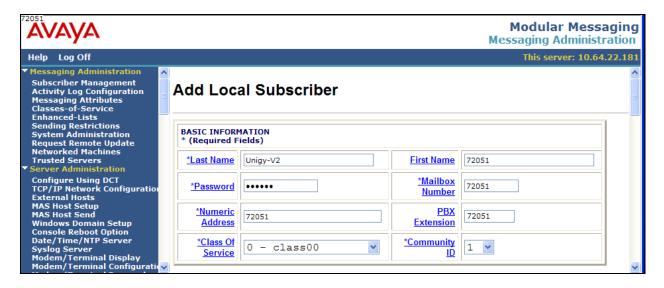
5.3. Administer Subscribers

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 "72051". 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. Repeat this section to add all IPC subscribers.



6. Configure IPC Converged Communication Manager

This section provides the procedures for configuring IPC Converged Communication Manager. The procedures include the following areas:

- Launch Unigy Management System
- Administer dial patterns
- Administer route plans
- Administer voicemail buttons

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

6.1. Launch Unigy Management System

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

The screen below is displayed. Enter the appropriate credentials. Check **I agree with the Terms** of Use, and click **Login**.

In the subsequent screen (not shown), click **Continue**.



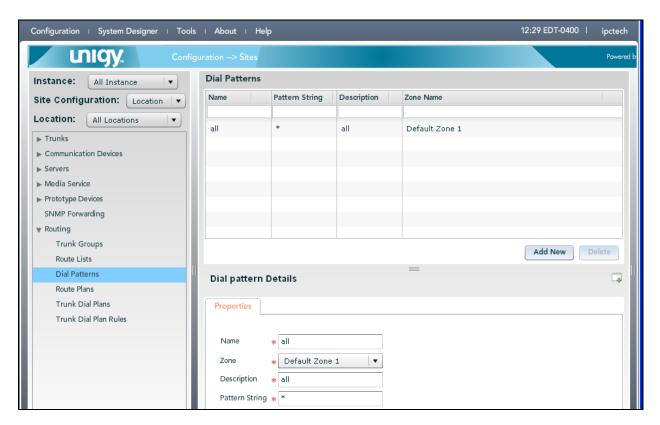
6.2. Administer Dial Patterns

In the subsequent screen, select **Configuration** →**Sites** from the top menu. The **Sites** information is displayed in the left pane.

Select Routing → Dial Patterns in the left pane, to display the Dial Patterns screen in the right pane. Click Add New in the upper right pane.

Add a new dial pattern for the Modular Messaging pilot number from **Section 3**, and another dial pattern for Modular Messaging that includes the routing prefix from Communication Manager. Note that when a call to an Avaya endpoint covers to Modular Messaging, the divert destination received from Communication Manager will include the routing prefix, which must be configured on Converged Communication Manager.

The following screen showed the dial pattern used during the compliance test. Click **Save** (not shown).



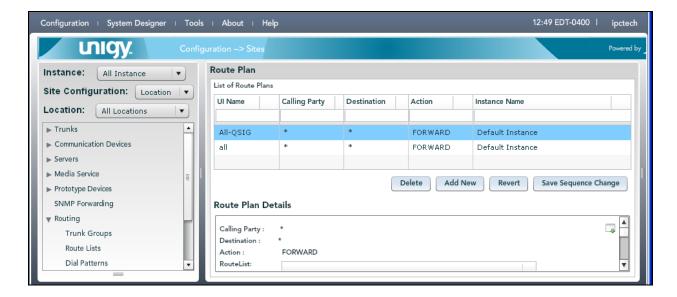
6.3. Administer Route Plans

Select Routing \rightarrow Route Plans in the left pane, and click Add New (not shown) in the right pane to create a new route plan for each new dial pattern from Section 6.2.

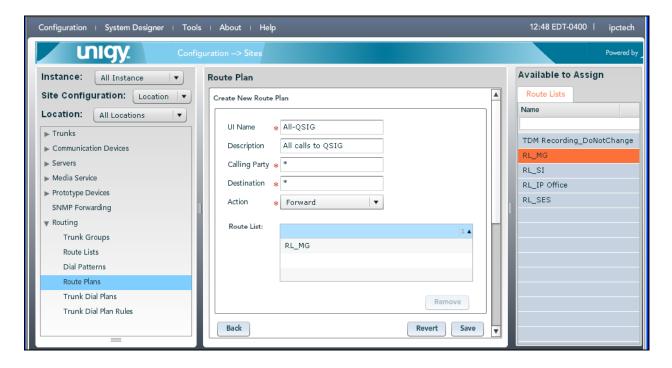
The screen is updated with three panes, as shown below. In the **Route Plan** middle pane, enter a descriptive **UI Name** and optional **Description**. For **Calling Party**, enter "*" to denote any calling party from UnigyV2. For **destination**, enter "*" to denote any called party from UnigyV2. Select "Forward" for **Action**, and click **Save** (not shown).



The screen is updated with the newly created route plan. Select the route plan, and click **Edit** toward the bottom of the screen (not shown).



The screen is updated with three panes again, as shown below. In the right pane, select the applicable route list and drag into the **Route List** sub-section in the middle pane, as shown below. Click **Save**.



6.4. Administer Voicemail Buttons

Select **System Designer** \rightarrow **End User Configuration** from the top menu, to display the end user information in the left pane. Select the desired user from the left pane.

In the middle pane, select the **Face Layout** tab.

In the right pane, select the **Lines** tab. For **Type**, select "DialTone" from the drop-down list to display a list of available lines. Scroll the pane as necessary to locate and expand the desired turret extension, in this case "72051". Select the corresponding appearance for the turret extension from the right pane, and drag into an available button in the middle pane, in this case button "10" as shown below.



Select the new button in the upper middle pane, in this case button "10", to enable the button to be configured in the lower middle pane.

In the lower middle pane, enter the following values for the specified fields, and retain the default values for the remaining fields.

• **Button Type:** "MWI"

• **Button Label:** A descriptive name.

• NumberToDial: The Modular Messaging pilot number (not shown).



Repeat this section for all desired users. In the compliance testing two voicemail buttons corresponding to turret subscriber extensions of "72051" and "72052" were created for the two turrets users.

7. Configure IPC Media Gateway

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

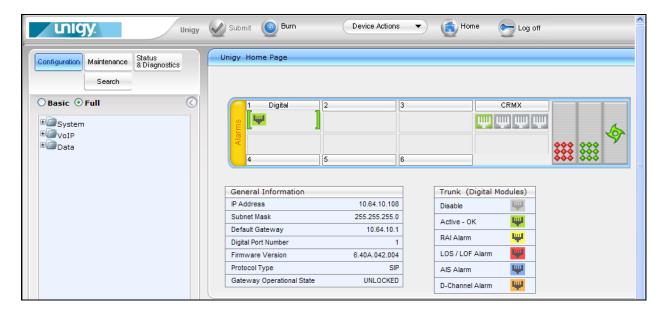
- Obtain network interface name
- Administer media realm
- Administer proxy sets
- Administer IP group
- Administer trunk group settings
- Administer MWI notification

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

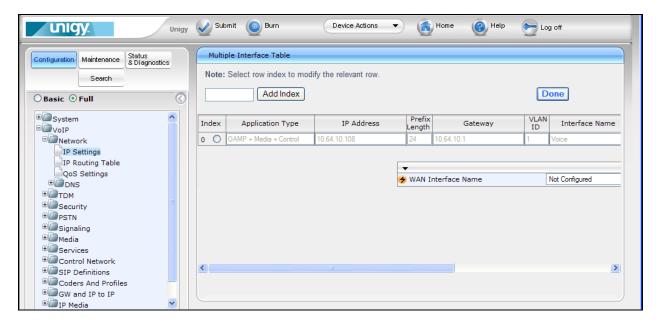
7.1. Obtain Network Interface Name

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

The screen below is displayed. Click the radio button for **Full** in the left pane.



Select VoIP → Network → IP Settings to display the Multiple Interface Table screen. Note the value of Interface Name, in this case "Voice".



7.2. Administer Media Realm

Select VoIP \rightarrow Media \rightarrow Media Realm Configuration from the left pane to display the SIP Media Realm Table screen. Click Add button.

In the new index entry line, enter the values shown in the screenshot below. Note that the **Media Realm Name** can be any descriptive name, and the **IPv4 Interface Name** is the network interface name from **Section 7.1**.



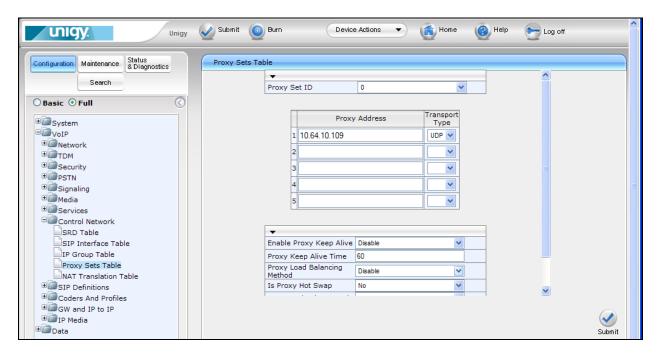
7.3. Administer Proxy Sets

Select VoIP → Control Network → Proxy Sets Table from the left pane to display the Proxy Sets Table screen.

For **Proxy Set ID**, select "0". Set the first **Proxy Address** to the IP address of IPC Media Manager, and set the corresponding **Transport Type** to "UDP". Retain the default values in the remaining fields.

Repeat the above with **Proxy Set ID** of "1".

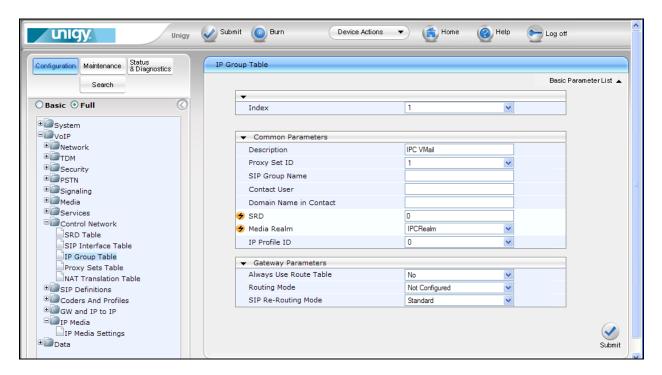
Note that the current release requires both proxy set IDs to be configured.



7.4. Administer IP Group

Select VoIP → Control Network → IP Group Table from the left pane to display the IP Group Table screen.

For **Proxy Set ID**, select "1". For **Media Realm**, select the media realm name from **Section 7.2**. Retain the default values in the remaining fields.



7.5. Administer Trunk Group Settings

Select VoIP \rightarrow GW and IP to IP \rightarrow Trunk Group \rightarrow Trunk Group Settings from the left pane to display the Trunk Group Settings screen.

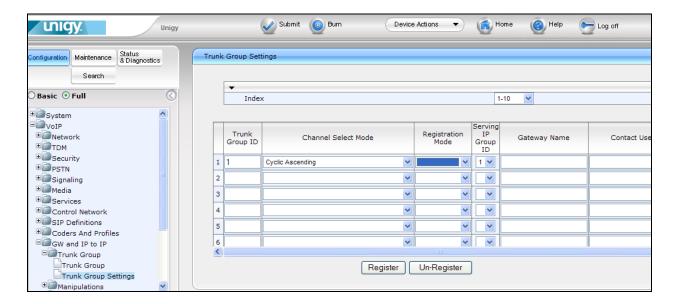
Create a new trunk group entry with the following values for the specified fields.

• Trunk Group ID: "1"

• Channel Select Mode: "Cyclic Ascending"

• **Registration Mode:** The IP group table index from **Section 7.4**.

• **MWI Interrogation Type:** "Use Result" to enable sending of SIP NOTIFY messages (not shown).



7.6. Administer MWI Notification

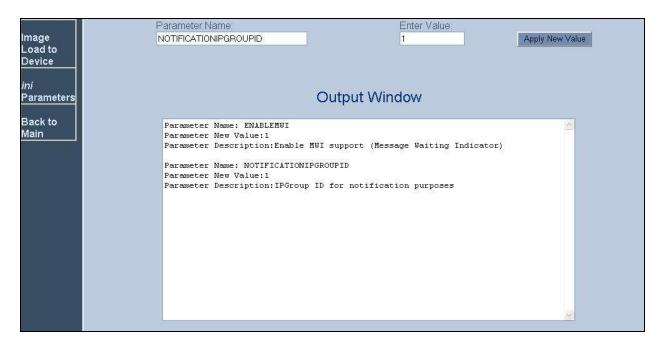
Access the Media Gateway administration page web interface by using the URL "http://ip-address/AdminPage" in an Internet browser window, where "ip-address" is the IP address of the Media Gateway.

The screen below is displayed. Select *ini* **Parameters**, and enter the appropriate credentials in the pop-up box (not shown).



The screen below is displayed next. Enter "ENABLEMWI" and click **Apply New Value** to verify the Parameter New Value is set to "1" which means MWI is enabled. If it is not enabled, enter "ENABLEMWI" and "1", then click **Apply New Value** to set the parameter.

Repeat with "NOTIFICATIONGROUPID as shown below.



8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Modular Messaging and IPC UnigyV2.

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.

9. Conclusion

These Application Notes describe the configuration steps required for IPC UnigyV2 to successfully interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Communication Manager 6.2 in a centralized messaging environment using QSIG trunks to Avaya Aura® Communication Manager. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

10. Additional References

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

- **1.** Administering Avaya Aura® Communication Manager, Document 03-300509, Issue 7.0, Release 6.2, July 2012, available at http://support.avaya.com.
- **2.** Avaya Modular Messaging for the Avaya Message Store Server (MSS) Configuration, Release 5.2, August 2012, available at http://support.avaya.com.
- **3.** Application Notes for IPC UnigyV2 with Avaya Aura® Communication Manager 6.2 using QSIG Trunks, Issue 1.0, available at http://support.avaya.com.
- **4.** *Unigy V2 1.1 System Configuration*, Part Number B02200187, Release 00, upon request to IPC Support.

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