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 5.2.1 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 5.2.1 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 at the turret, 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 Communication Manager, and T1 QSIG trunks were used from 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 detailed administration of E1 QSIG trunks between Communication Manager and IPC UnigyV2, 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].

An Avaya SIP Enablement Services was included during the compliance test only to provide SIP endpoints.

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:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Software</th>
</tr>
</thead>
</table>
| Avaya Modular Messaging  
  - Messaging Storage Server  
  - Messaging Application Server | 5.2 SP9 P4  
  5.2 SP9 P4 |
| Avaya Aura® Communication Manager on Avaya S8720 Servers | 5.2.1  
 (R015x.02.1.016.4-19880) |
| Avaya G450 Media Gateway  
  - TN464HP DS1 Interface | HW02 FW024 |
| Avaya SIP Enablement Services | 5.2.1 SP4 (SES-5.2.1.0-016.4-SP4C) |
| Avaya 96xx IP Telephone (H.323) | 3.1 |
| Avaya 96xx IP Telephone (SIP) | 2.6.8 |
| Avaya 6408D Digital Telephone | NA |
| IPC UnigyV2  
  - Media Manager on Dell R610  
  - 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 ➔ Networked Machines from the left pane, to display the Manage Networked Machines screen on the right pane. 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.
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.

Scroll down to the bottom of the screen and click **Save** (not shown).

Repeat this section to add all IP Trade subscribers.
6. Configure IPC Converged Communication Manager

This section provides the procedures for configuring IPC Media 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 ➔ Site Configuration from the top menu. The Site Configuration 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 Dial pattern Details sub-section in the lower right pane, enter the desired Name and Description. For Pattern String, enter the dial pattern to match for Avaya endpoints, in this case "*" meaning any digits will be sent to Communication Manager via IPC Media Gateway. For Zone, select “Default Zone 1”. Click Save (not shown).
6.3. Administer Route Plans

Select **Routing → 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**. Select “Default Instance” for **Instance**, 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**.

The following screen shows all calls from IPC turrets will be sent to IPC Media Gateway.

Repeat this section as necessary to add a new route plan for each new dial pattern from **Section 6.2**.
6.4. Administer Voicemail Buttons

Select **System Designer → 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 this case “user9001”.

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 “13”, 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 from **Figure 1** on **Section 3**.

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. 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.

8. 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 5.2.1 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.

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


5. Unigy V2 1.1 System Configuration, Part Number B02200187, Release 00, upon request to IPC Support.
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