Abstract

These Application Notes describe the configuration steps required for Mutare Migration Tool to interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Session Manager 6.3 using SIP trunks.

The purpose of Mutare Migration Tool is, migrate subscriber’s databases from Avaya Modular Messaging to Avaya Aura® Messaging.

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 Mutare Migration Tool to interoperate with Avaya Modular Messaging 5.2 and Avaya Aura® Messaging.

The purpose of Mutare Migration Tool is, migrate subscriber’s mailbox information from Avaya Modular Messaging to Avaya Aura® Messaging (Hereon refers to as AAM). During the migration process, two Nodes were configured.

- Node0 indicates Avaya Modular Messaging
- Node2 indicates Avaya Aura® Messaging

Following commands were used for migrating databases from Avaya Modular Messaging to Avaya Aura® Messaging.

- mmldapsync.exe /Node=0 /Reset
- mmldapsync.exe /Node=2 /Reset
- mmldapupdate.exe /Source=0 /Destination=2
- mirrorsync.exe

- mmldapsync: This command synchronizes Avaya centralized storage servers (MSS) with local SQL database on the Migration Server. During the compliance test, Avaya Modular Messaging and AAM storage server were synchronized with SQL.
- mmldapupdate: Once LADP is synchronized with source and destination, this command will migrate (update) from the source to destination.
- mirrorsync: This application updates the Message Mirror database with the mailboxes from Node 0 in order to have Mirror synchronizing messages and personal greeting from Avaya Modular Messaging to AAM.

2. General Test Approach and Test Results

Before running the scripts mentioned in Section 1, verify that Avaya Modular Messaging is working properly, meaning subscribers can be accessed to Avaya Modular Messaging and leave/retrieve the message, and MWI works. For this test Avaya Modular Messaging contained about thirty-some subscribers. Of these subscribers, three subscribers had a multiple messages.

Note: For this test, AAM was freshly installed, and the basic configuration was accomplished. In AAM, a temporary subscriber was configured to verify that the subscriber was able to leave/retrieve message, and MWI worked correctly.

During the test, the serviceability test was not performed since the test is one time execution.
2.1. Interoperability Compliance Testing
The interoperability compliance test included executing of migrating tool’s scripts and verifying the data base.

Interoperability compliance testing covered the following features and functionality:
- Mutare Migration Tool’s connectivity to Messaging using IMAP and LDAP access.
- Migration of subscriber’s database from Avaya Modular Messaging to AAM by verifying that new mailboxes, including greetings and passwords, were copied to AAM.

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.

2.2. Test Results
All test cases passed.

2.3. Support
Technical support on Migration Tool can be obtained through the following:
- Phone: (855)782-3890
- Email: help@mutare.com
3. Reference Configuration

Figure 1 illustrates a sample configuration with an Avaya SIP-based network that includes the following Avaya products:

- Avaya Aura® Communication Manager running on an Avaya S8300D Server with a G450 Media Gateway.
- Avaya Modular Messaging serving as the Source voicemail systems.
- AAM serving as the Destination voicemail systems.
- Avaya Aura® Session Manager connected to Communication Manager via a SIP trunk that provides SIP connectivity for AAM, and Avaya Modular Messaging.
- Avaya Aura® System Manager used to configure Session Manager.

Note: During the compliance test, Mutare Migration Tool was installed and configured on VMWare.

![Figure 1: Avaya SIP Network with Avaya Modular Messaging, Avaya Aura® Messaging, and Mutare Migration Tool](image-url)
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>
<tbody>
<tr>
<td>Avaya Modular Messaging</td>
<td>5.2 SP16</td>
</tr>
<tr>
<td>Avaya Aura® Messaging</td>
<td>MSG-03.0.124.0-335_0212</td>
</tr>
<tr>
<td>Avaya Aura® Communication Manager on Avaya S8300D Server</td>
<td>R016x.03.0.124.0-21754</td>
</tr>
<tr>
<td>Avaya Aura® Session Manager</td>
<td>6.3.9.0.639011</td>
</tr>
<tr>
<td>Avaya Aura® System Manager</td>
<td>6.3.9</td>
</tr>
<tr>
<td>Avaya 9620 IP Telephone (H.323)</td>
<td>3.22</td>
</tr>
<tr>
<td>Avaya 9630 IP Telephone (SIP)</td>
<td>2.6.12</td>
</tr>
<tr>
<td>Mutare Migration Tool on Windows Server 2008</td>
<td>Message Mirror 2.1.2 and LDAP Package 1.3.9</td>
</tr>
</tbody>
</table>

5. Configure Avaya Aura® Communication Manager

Communication Manager was already configured prior to the compliance test, and is not a critical part of testing, and these Application Notes will not include the Communication Manager configuration to discuss.

6. Configure Avaya Aura® Session Manager

Session Manager was already configured prior to the compliance test, and is not a critical part of testing, and these Application Notes will not include and discuss the Session Manager configuration.
7. Configure Avaya Modular Messaging

This section provides the procedures for configuring Avaya Modular Messaging for integration with Mutare Migration Tool.

The procedures include the following areas:

- Enable IMAP and LDAP on System Ports and Access
- Add a Trusted Server for the Mutare Migration Tool server

7.1. Enable IMAP and LDAP

From a web browser, enter the Avaya Modular Messaging IP address (MSS) as the URL to access the Messaging web interface. Navigate to Messaging Administration → System Administration and scroll down to System TCP/IP Ports section. Configure and enable the LDAP and IMAP ports. The LDAP Port is 389 and the LDAP SSL Port is 636. The IMAP4 Port is 143 and the IMAP4 SSL Port is 993. These are the default ports and should match on Message Mirror.

Click on Save at the bottom of the screen.
7.2. Add the Mutare Migration Tool as a Trusted Host

Navigate to Messaging Administration → Trusted Servers. Select the Add a New Trusted Server button to add Mutare as a trusted server.
In the **Add Trusted Server** page, provide the following information:

- Enter the name for the Trusted Server.
- Enter the IP address of the Mutare Migration Tool on the **Machine Name / IP Address** field.
- Enter the password on the **Password and Confirm Password** fields. During the test, the same passwords were configured on AAM side in order to allow encrypted data to be migrated successfully.
- Verify that access to LDAP and IMAP was enabled.

Select the **Save** button after the completion.
8. Configure Avaya Aura® Messaging

This section provides the procedures for configuring AAM for integration with Mutare Migration Tool.

The procedures include the following areas:
- Enable IMAP and LDAP on System Ports and Access
- Add a Trusted Server for the Mutare Migration Tool server

8.1. Enable IMAP and LDAP

From a web browser, enter the Avaya Modular Messaging IP address (MSS) as the URL to access the Messaging web interface. Navigate to **Messaging Administration → System Administration** and scroll down to **System TCP/IP Ports** section. Configure and enable the LDAP and IMAP ports. The **LDAP Port** is 389 and the **LDAP SSL Port** is 636. The **IMAP4 Port** is 143 and the **IMAP4 SSL Port** is 993. These are the default ports and should match on Message Mirror.

Select the **Save** button at the bottom (not shown).
8.2. Add the Mutare Migration Tool as a Trusted Host

Navigate to Messaging Administration ➔ Trusted Servers. Select the Add a New Trusted Server button to add Mutare as a trusted server.
In the **Add Trusted Server** page, provide the following information:

- Enter the name for the Trusted Server.
- Enter the IP address of the Mutare Migration Tool on the **Machine Name / IP Address** field.
- Enter the password on the **Password and Confirm Password** fields. During the test, the same passwords were configured on Avaya Modular Messaging side in order to allow encrypted data to be migrated successfully.
- Verify that access to LDAP and IMAP was enabled.

Select **Save** button to complete addition of the trusted server.
9. Configure Mutare Migration Tool

This section covers the configuration of Mutare Migration Tool. Refer to [2] for additional information on configuring Message Mirror. In these Application Notes, the following is discussed:

- Configuring Nodes (Source and Destination)
- Configuring Message Mirror

9.1. Configuring Nodes

Access to Mutare Migration Tool. During the compliance test, the Remote Desktop was utilized. Navigate to SQL Server Management Studio → Database → MSSLDAP → Tables → dbo.Nodes, and select the Default.MSSLDAP – dbo.Nodes tab, and the following two screens are displayed.

As mentioned in Section 1, “0” indicates the source (Avaya Modular Messaging), and “2” indicates the Destination (AAM). Verify the NetName, HostIP, TrustedServerName, encrypted TrustedServerPassword, TrustedServerPort, and Mutare License (not shown) are populated.

9.2. Configuring Message Mirror

Access to Mutare Migration Tool web interface by using the URL, “http://ip-address”, in an Internet browser window, where “ip-address” is the IP address of Mutare Migration Tool. The following login page is presented. On the Message Mirror Admin page, log in with the appropriate credentials.

To edit the Global Settings, click on Edit Global Settings at the top of the following page.
### Target:

<table>
<thead>
<tr>
<th>IP / Port</th>
<th>Super User</th>
<th>License Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.64.181.216 / 143</td>
<td>Mutare</td>
<td>37 of 10000</td>
</tr>
</tbody>
</table>

### Sources:

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
<th>IP / Port</th>
<th>Super User</th>
<th>Mailboxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial Source</td>
<td>10.64.22.181 / 143</td>
<td>Mutare</td>
<td>37</td>
</tr>
</tbody>
</table>

### Runs (Last 2):

<table>
<thead>
<tr>
<th>Src ID</th>
<th>Run ID</th>
<th>Type</th>
<th>Start Time</th>
<th>End Time</th>
<th>Duration</th>
<th>Processed</th>
<th>Total Errors</th>
<th>Errors</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4521</td>
<td>Sync</td>
<td>4/16/2015 2:55:35 PM</td>
<td>4/16/2015 2:55:35 PM</td>
<td>0 sec</td>
<td>0</td>
<td>16</td>
<td>2</td>
<td>Done</td>
</tr>
<tr>
<td>1</td>
<td>4520</td>
<td>Sync</td>
<td>4/16/2015 2:54:34 PM</td>
<td>4/16/2015 2:54:35 PM</td>
<td>1 sec</td>
<td>0</td>
<td>16</td>
<td>2</td>
<td>Done</td>
</tr>
</tbody>
</table>

### Mailboxes (Last 3):

<table>
<thead>
<tr>
<th>Src ID</th>
<th>Run ID</th>
<th>Src Mbx</th>
<th>Dest Mbx</th>
<th>Start Time</th>
<th>End Time</th>
<th>Src Cnt</th>
<th>Dest Cnt</th>
<th>Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4521</td>
<td>42001</td>
<td>42001</td>
<td>4/16/2015 2:55:35 PM</td>
<td>4/16/2015 2:55:35 PM</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>4521</td>
<td>722025</td>
<td>722025</td>
<td>4/16/2015 2:55:35 PM</td>
<td>4/16/2015 2:55:35 PM</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>4520</td>
<td>722026</td>
<td>722026</td>
<td>4/16/2015 2:54:34 PM</td>
<td>4/16/2015 2:54:35 PM</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### Errors (Last 3):

<table>
<thead>
<tr>
<th>Src ID</th>
<th>Run ID</th>
<th>Src Mbx</th>
<th>Error Date</th>
<th>Error Msg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4521</td>
<td>42001</td>
<td>4/16/2015 2:55:35 PM</td>
<td>Inbox=D:312: Unknown mailbox</td>
</tr>
<tr>
<td>1</td>
<td>4521</td>
<td>722025</td>
<td>4/16/2015 2:55:35 PM</td>
<td>Inbox=D:312: Unknown mailbox</td>
</tr>
<tr>
<td>1</td>
<td>4520</td>
<td>42001</td>
<td>4/16/2015 2:54:35 PM</td>
<td>Inbox=D:312: Unknown mailbox</td>
</tr>
</tbody>
</table>
The **Global Settings** page is displayed. The following parameters should be configured:

- **Backup Type** Set to *Backup to Avaya Modular Messaging*.
- **Backup IP / Port** Configure the IP address of the backup Messaging system, AAM and the IMAP4 port number.
- **Super User** Specify the Trusted Server Name configured on the backup Messaging system.
- **Super Pwd** Set to the password for the Trusted Server configured on the backup Messaging system.
- **Cycle Time (Sec)** Specify the interval in seconds which Message Mirror should check for necessary updates to the backup system.
- **From Email** Specify the email address from which all error/status emails are sent.

When done, click **Save Changes** on top of the page.
From the home page, click on the **Edit** link by **Sources** to configure the source Messaging system. In the **Edit Sources** page configure the following parameters:

- **Description**: Provide a description for the source.
- **IP**: Specify the IP address of the Source Messaging system (Avaya Modular Messaging).
- **Port**: Specify the IMAP4 port number.
- **Super User**: Specify the Trusted Server Name on the Messaging system.
- **Super Pwd**: Specify the password of the Trusted Server.
- **Use Events**: Enable this option.

![Message Mirror Admin](image)

From the home page, verify the IP/Port and Super User name on **Target** (AAM) are correct.

### 10. Verification Steps

After migration is completed, the following steps may use for verification:

- Verify the migrated subscribers in AAM are matching with Avaya Modular Messaging.
- Verify the migrated subscribers in AAM are able to log into the mailboxes using the same passwords as on Avaya Modular Messaging.
- Verify the migrated subscribers have the same recorded name on AAM as on Avaya Modular Messaging.
- Verify the personal greeting from AAM is the same personal greeting from Avaya Modular Messaging.
- Verify the Message-Waiting Indicators (MWI) is properly migrated. For this verification, three subscribers are configured with multiple messages. (x72001,x72002, 72023 with 8,1,4 messages respectively)
- Verify that subscribers can leave/retrieve messages from AAM.
- Verify that the messages migrated are in the same state (new, read, etc) on AAM as they are on Avaya Modular Messaging.
11. Conclusion

These Application Notes describe the configuration steps required for Mutare Migration Tool to successfully migrate subscribers from Avaya Modular Messaging to Avaya Aura® Messaging.

12. Additional References

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


For Mutare Migration Tool, please contact Mutare.
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