

Avaya Solution & Interoperability Test Lab

### Application Notes for Configuring the Mutare Software Message Mirror Solution with Avaya Modular Messaging - Issue 1.0

#### Abstract

These Application Notes describe a sample configuration for the Mutare Software Message Mirror solution with Avaya Modular Messaging.

Mutare Software Message Mirror is a solution for Avaya Modular Messaging that backs up the production system and copies/mirrors voice messages, names, greetings, passwords and LDAP changes to a backup Avaya Modular Messaging Message Store Server (MSS).

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

Mutare Software Message Mirror is a business continuity solution for Avaya Modular Messaging that backs up the production system and copies/mirrors voice messages, names, greetings, passwords and LDAP changes to a backup Avaya Modular Messaging Message Store Server (MSS) in real time. Message Mirror provides continued user access to voicemail in the event of an outage and supports full restoration of data to the production server once it is back on line.

These Application Notes describe a sample configuration for the Mutare Software Message Mirror solution with Avaya Modular Messaging. Compliance testing emphasis was placed on validating the Mutare Software Message Mirror software capability of mirroring the messages, names, greetings and passwords of the enterprise Avaya Modular Messaging system to a backup Avaya Modular Messaging system.

#### 1.1. Interoperability Compliance Testing

This document describes the interoperability compliance testing for the Mutare Software Message Mirror solution with Avaya Modular Messaging.

Compliance testing included the following:

- Installation of Mutare Software Message Mirror software
- Mirror
  - o messages
  - o names
  - o greetings
  - o passwords
- Restore
  - o messages
  - o greetings
- Serviceability

#### 1.2. Support

Mutare Technical Support Email: <u>support@mutare.com</u> Mutare Technical Support Phone: 847-4496-9000 option 2. Mutare Technical Support Webpage: <u>http://mutare.com/support.asp</u>

# 2. Reference Configuration

The configuration in **Figure 1** shows an Avaya Telephony Infrastructure integrating a Mutare Software Message Mirror solution.

#### 2.1. Corporate Headquarters

The configuration in **Figure 1** shows an Avaya Telephony Infrastructure consisting of Avaya Aura<sup>TM</sup> Communication Manager, Avaya Aura<sup>TM</sup> SIP Enabled Services and multiple Avaya Modular Messaging systems integrating a Mutare Software Message Mirror solution.



Figure 1: Sample Network Configuration

#### 3. Equipment and Software Validated

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

Equipment	Software/Firmware		
Avaya PBX Product	s		
Avaya S8300 Server running Avaya Aura <sup>™</sup>	Avaya Aura <sup>™</sup> Communication		
Communication Manager	Manager 5.2.1		
Avaya G450 Media Gateway (Corporate Site)			
MGP	28.22.0		
MM712 DCP Media Module	HW9		
Avaya Aura <sup>TM</sup> SIP Enablement S	Services (SES)		
Avaya Aura <sup>TM</sup> SIP Enabled Services (SES) Server	5.2.1 SP2		
Primary Avaya Modular Me	essaging		
Avaya Modular Messaging - Messaging Application	5.2		
Server (MAS)			
(MSS)	5.2		
Backup Avaya Modular Me	essaging		
Avaya Modular Messaging - Messaging Application Server (MAS)	5.2		
Avaya Modular Messaging - Message Storage Server (MSS)	5.2		
Avaya Telephony Set	ts		
Avaya 9600 Series IP Telephones	Avaya one-X Deskphone Edition 3.0.1		
Avaya 9600 Series IP Telephones	Avaya one-X Deskphone SIP 2.4		
Avaya 2410 Digital Telephone	5.0		
Mutare Software Produ	ucts		
Mutare Software Message Mirror	1.4.1		
MS Products			
Microsoft Windows 2003 Server (Running the Mutare Software Message Mirror)	Microsoft Windows 2003 Server		

### 4. Avaya Aura<sup>™</sup> Communication Manager

This section describes the steps required for Avaya Aura<sup>™</sup> Communication Manager to support the configuration shown in **Figure 1**. The assumption is that the appropriate license and authentication files have been installed on the servers and that login and password credentials are available.

 It is assumed that Avaya Aura<sup>™</sup> Communication Manager, Avaya Aura<sup>™</sup> SIP Enabled Services and both Avaya Modular Messaging are configured, only settings specific to the Mutare Software Message Mirror solution will be shown in this document. Refer to [1],
 [2], and [3] for more information

#### 5. Primary Avaya Modular Messaging

The Mutare Software Message Mirror solution requires that the IP Address of the server be a trusted host on the Avaya Modular Messaging. Thanks

• Except where stated, the parameters in all steps are the default settings and are supplied for reference.

#### 5.1. Define a Trusted Server on Avaya Modular Messaging



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2.	Select <b>Messaging</b> appears (not show appears. Enter the	<b>g Administration</b> $\rightarrow$ <b>Trusted Ser</b> wn), select the <b>Add a New Truste</b> e following:	rvers. The Manage Trusted Servers webpage ed Server tab. The Add Trusted Server webpage
	<ul> <li>Trusted S</li> <li>Password that is ins</li> <li>Confirm</li> <li>Machine installed)</li> <li>Service N</li> <li>IMAP4 S</li> </ul>	Server Name - Mutare 1 - Enter a password (This pass stalling the Mutare Software Mess Password – Reenter the passwo Name / IP Address - 192.50.1 Name - Mutare Super User Access Allowed – Ye	word needs to the Mutare Software Engineer age Mirror software) rd 0.50 (IP Address where Mutare application is
	C Messaging Administration - Wi	ndows Internet Explorer	
	C	)/cgi-bin/do_login	Certificate Error 🤣 🗙 🚼 Google
	File Edit View Favorites Tools	s Help	
	🚖 Favorites 🏾 🌈 Messaging Administr	ration	🟠 👻 🔂 🝸 🖻 🚔 🕶 Page 🗸 Safety 🗸 Tools 🕶 🕢 🎽
	Αναγα		Modular Messaging Messaging Administration
	Help Log Off  Hessaging Administration Subscriber Management Activity Log Configuration Messaging Attributes	Add Trusted Server	This server: 192.50.10.40
	Classes-of-Service Enhanced-Lists Sending Restrictions System Administration Request Remote Update	Trusted Server Name Mutare	Password     •••••       Confirm Password     •••••
	Networked Machines Trusted Servers	Machine Name / IP Address 192.50.10.50	Service Name Mutare
	Configure Using DCT TCP/IP Network Configura External Hosts	Minutes of Inactivity Before Alarm	Default Community
	MAS Host Setup MAS Host Send Windows Domain Setup	Access to Cross Domain Delivery	Special Type (none)
	Console Reboot Option Date/Time/NTP Server Syslog Server	LDAP Access Allowed yes V	LDAP Connection Security No encryption required
	Modem/Terminal Display Modem/Terminal Configur Modem/Terminal Removal TCD/ID Somico Softinger	IMAP4 Super User Access Allowed yes	IMAP4 Super User Connection Security Must use SSL or encrypted SASL ¥
	▼ IMAP/SMTP Administration		
	Mail Options IMAP/SMTP Status	Back Help	
	Alarm Summary		

#### 6. Backup Avaya Modular Messaging

The Mutare Software Message Mirror solution requires a few configuration settings the backup Avaya Modular Messaging. They are as follows:

- Configure the Mutare Software Message server as a trusted host
- Disable New Mailbox Initialization
- Change class-of-service (COS) values for Maximum Call Answer Message and Maximum Voice Mail Message
- Disable Modular Messaging (MM) Message Waiting Indicator (MWI) process

Except where stated, the parameters in all steps are the default settings and are supplied for reference.

#### 6.1. Define a Trusted Server on Avaya Modular Messaging



2.	Select <b>Messaging</b> appears (not show appears. Enter the	g Administration vn), select the Ad e following:	a → Trusted Ser d a New Trusted	vers. The Manag I Server tab. The	e Trusted Servers webpage Add Trusted Server webpage
	<ul> <li>Trusted S</li> <li>Password that is inst</li> <li>Confirm</li> <li>Machine installed)</li> <li>Service N</li> <li>IMAP4 S</li> </ul>	Server Name - I - Enter a passy talling the Mutare Password – Reen Name / IP Addro Jame - Mutare Super User Acces	Mutare word (This passwer Software Messanter the passwor ess - 192.50.10 s Allowed – Yes	word needs to the ge Mirror softwa d 0.50 (IP Address	Mutare Software Engineer re) where Mutare application is
	Hessaging Administration - Wir	ndows Internet Explorer			
	C C C T C C C C C C C C C C C C C C C C			👻 😵 Certificate Erro	ar 🛃 🔀 Google
	File Edit View Favorites Tools	Help			
	🔶 Favorites 🏉 🏀 Messaging Administra	ation			🏠 🔹 🔝 🝸 🖃 🖶 🔻 Page 🔹 Safety 🔹 Tools 👻 🕢 🦈
	Αναγα				Modular Messaging Messaging Administration
	Help Log Off Messaging Administration Subscriber Management Activity Log Configuration Messaging Attributes	Add Trusted Serve	r		This server: 10.32.80.40
	Classes-of-Service Enhanced-Lists Sending Restrictions System Administration Request Remote Update	<u>Trusted Server Name</u>	Mutare	Password Confirm Password	•••••
	Networked Machines Trusted Servers ▼ Server Administration	Machine Name / IP Address	192.50.10.50	Service Name	Mutare
	Configure Using DCT TCP/IP Network Configura External Hosts	Minutes of Inactivity Before Alarm	0	Default Community	1 •
	MAS Host Setup MAS Host Send Windows Domain Setup	Access to Cross Domain Delivery	no 💌	<u>Special Type</u>	(none)
	Console Reboot Option Date/Time/NTP Server Syslog Server	LDAP Access Allowed	yes 💙	LDAP Connection Security	No encryption required
	Modem/Terminal Display Modem/Terminal Configur Modem/Terminal Removal TCP/IP Service Settings	IMAP4 Super User Access Allowed	yes V	IMAP4 Super User Connection Security	Must use SSL or encrypted SASL 🗸
	<ul> <li>IMAP/SMTP Administration SMTP Options</li> </ul>	Save			
	Mail Options IMAP/SMTP Status Server Information	Back	Нер		
	Alarm Summary Dick Information				

# 6.2. Change Maximum Call Answer Message and Maximum Voice Mail Message settings

In order for maximum length messages to be mirrored to the backup MM system, the "Maximum Call Answer Message" and "Maximum Voice Mail Message" values in the COS for those mailboxes must be at least one minute longer than the corresponding COS on the production MM.

1. Connect to the Modular Messaging Administration page, For this example http://10.32.80.40 was used. Select **Continue.** Enter the appropriate **Username** and **Password** information (not shown), click **Login** to proceed.



C Messaging Administration - W	/indows Internet Explorer			
C C V R Albert - 10.32.80.4	D/cgi-bin/do_login		👻 😵 Certificate Error 🤄 🛠 🔀 Google	
File Edit View Favorites Too	ols Help			
Favorites 🌔 🏀 Messaging Admini	stration		💁 🔹 🔂 🕆 🖾 👘 👻 Page 🕶 S.	afety 🕶 Tools 🕶 🌘
AVAYA			<b>Modu</b> Messaging	ı <b>lar Messa</b> g Administra
Help Log Off			This	s server: 10.32
Activity Log Configuration Messaging Attributes Classes-of-Service Enhanced-Lists Sending Restrictions	Server Name: 10.32.80.40	Number of Classes-of-Service: 512		
System Administration Request Remote Update Networked Machines	COS Name   C	OS Number 👻		
Server Administration	ModM	0		
Configure Using DCT TCP/IP Network Configura	class01	1		
External Hosts MAS Host Setup	class02	2		
MAS Host Send Windows Domain Setup	class04	4		
Console Reboot Option	class05	5		
Syslog Server	Class06	6		
Modem/Terminal Display Modem/Terminal Configur	ELA	é		
Modem/Terminal Removal	class09	9		
IMAP/SMTP Administration	class10	10		
Mail Options	classii	12		
IMAP/SMTP Status Server Information	class13	13		
Server Status	class14	14 💌		
Alarm Summary Disk Information				
Server Notes CMOS Settings				
RAID Status	Sort By Name			
Reboot Interval				
▼ Utilities Rebuild PATD 1 Array	Display Report of COSs	Edit the Selected COS		
CD/DVD Mount				
CD/DVD Unmount CD/DVD Fiert				

<ul><li>Maximu</li><li>Maximu</li></ul>	um Call Answer N um Voice Mail Me	1essage - 6 essage – 6					
Click Save to c	ontinue.						
C Messaging Administration -	Windows Internet Explorer						
C	1.40/cgi-bin/do_login		👻 😵 Certificate Error 😽 🗙	Google			
File Edit View Favorites T	Fools Help						
Favorites Adm	inistration		👌 • 🖸	🕆 🖃 🖶 🔻 Page 🕶 Safety 🕶 Tools 🕶 🔞			
AVAVA				Modular Messa Messaging Administry			
Help Log Off				This server: 10.32			
✓Messaging Administration Subscriber Management	Edit a Class-of-Service	9					
Activity Log Configuration Messaging Attributes							
Enhanced-Lists Sending Restrictions	Class of Service Num	ber: 0	Class of Service Name	ModM			
System Administration Request Remote Update Naturation Machines	MESSAGE RETENTION SETTINGS						
Trusted Servers	Retain New Messages (d	ays) Forever 45	Retain Saved Messages (day	S) Forever 45			
Configure Using DCT TCP/IP Network Configuration	Retain Filed Messages (d	ays) Forever 45					
MAS Host Setup MAS Host Send							
Windows Domain Setup Console Reboot Option Date /Time /NTP Server	MAILBOX AND MESSAGE SIZES		Maximum Call Answer Message 6 Minutes V				
Syslog Server Modem/Terminal Display	Maximum Malibox S	36 Minutes Y					
Modem/Terminal Conngurad Modem/Terminal Removal TCP/IP Service Settings	Maximum Voice Mail Messa	6 Minutes Y					
▼IMAP/SMTP Administration SMTP Options	SUBSCRIBER FEATURES and SERVICES	i					
Mail Uptions IMAP/SMTP Status Server Information	Time Zone	Use System Timezone	×				
Server Status Alarm Summary	Message Waiting Indication Allowed	yes 🗸	Call Me Allowed	yes 🗸			
Server Notes CMOS Settings	Find Me Allowed	ves v	Notify Me Allowed	ves v			
RAID Status Rebuild RAID Status		100					
▼Utilities Rebuild RAID 1 Array	<u>Call Handling</u>	yes ¥	<u>Call Screening</u>	yes 💙			
CD/DVD Mount CD/DVD Unmount CD/DVD First	Outbound Fax Calls	yes 🗸	Extended Absence Greeting Allowed	yes 💙			
Messaging DB Audits Start Messaging	Inbound Fax	yes 🗸	Aria TUI Date & Time Playback	Never			
Stop Messaging Shutdown Server Reboot Server	Page via PBX	no 🔽	Record Mailbox Greetings	yes 🗸			
▼Logs Administration History	Caller Application Announcement	no 🗸	Caller Application	(none) 🗸			
Alarm Backup Command Line History	Telenhone Liser Interface		Restrict Client Access				
ELA Delivery Failures IMAP/SMTP Maintenance	Dersonal Operator Configuration						
Messaging Start-up MSS DCT Configuration Logs Restore			Unsent Message AlloWed	110 📉			
Server Events	Allow message after EAG	Always 🚩					

#### 6.3. Change Mailbox Initialization on the MAS

To avoid users having to change their mailbox when using the Backup Avaya Modular Messaging system, it is recommended that the "Enable New Mailbox Initialization" checkbox in the Telephone User Interface section of the Voice Mail System Configuration on the backup MAS be unchecked when creating new mailboxes on the backup MM system.

 Log onto the Avaya Modular Messaging MAS server using the appropriate Username and Password information. From the desktop, go to Start → Programs → Avaya Modular Messaging → Voice Mail System Configuration (not shown). The Voice Mail System Configuration window appears. Double click on Telephone User Interface, the Telephone User Interface dialogue box appears. Click General, uncheck the check-box next to Enable New Mailbox Initialization, and select OK to continue.



#### 6.4. Stop & Disable Avaya Modular Messaging MWI services

To avoid multiple MWI transmissions, one from the primary Avaya Modular Messaging system and one from the backup, the Avaya Modular Messaging MWI service should be disabled and only started if the primary Avaya Modular Messaging system in down.

 Log onto the backup Avaya Modular Messaging MAS server using the appropriate Username and Password information. From the desktop, go to Start → Run and in the box type services.msc (not shown). Find the MM Message Waiting Indicator Server service, right mouse click and select Properties. Change the Startup type to Disabled then select Stop. Once the service has stopped, select OK to continue.

🍇 Services (Local)	🍇 Services (Local)					
	MM Message Waiting Indicator Server	Name 🔺	nitor der Server	Descr Monit Provid	ription Statu for faults i Starte des a fax Starte	s Startup T ed Automatio ed Automatio
	Stop the service Restart the service	MM Mailbox M M Message	Monitor Waiting Indicator S	Monit ierver Enabl	ors Avay Starte les Avaya Starte	ed Automati ed Automati
	Description:	MM Messa M	M Message Wait	ing Indicator Se	erver Properties (	Local Comp
	Enables Avaya Modular Messaging subscribers to be notified when MWI		General Log On	Recovery Depe	endencies	
	Extended / Standard /		Service name:	gv_mwiserver		
			Display <u>n</u> ame:	MM Message W	aiting Indicator Serve	er
			Description:	Enables Avaya M notified when MV	/lodular Messaging s WI rules are met	ubscribers to be
			Pat <u>h</u> to executabl  ''C:\Program Files	e: \Avaya Modular M	1essaging\MWIServe	er\mwiserver.exe'
			Startup typ <u>e</u> :	Disabled		
			Service status:	Started		
			<u>S</u> tart	Stop	Pause	<u>R</u> esume
			You can specify t from here.	he start parameters	s that apply when you	u start the service
			Start para <u>m</u> eters:			
		-			OK Canc	el Appí

# 7. Mutare Software Message Mirror Software

Mutare Software installs and configures the Mutare Software Message Mirror Software on the server. Refer to the Mutare Software support page for server requirements.

Once the Mutare Software Message Mirror Software is installed configure the following:

#### 7.1. Configure Mutare Software Message Mirror Software

Mutare Software Message Mirror is administered via a web interface. In the sample network, the Mutare Software Message Mirror was installed on a Windows 2003 server with IP address 192.50.10.50.

1.	Open a Web browser and go to the following URL: <u>http://192.50.10.50</u> . Enter the appropriate <b>Admin ID</b> and <b>Password</b> information, click <b>Login</b> to proceed.
	Mutare Software Message Mirror Admin
	Admin ID: admin
	Password:
	Login
	Powered By: Mutare. Software

		Ea	iit Clobal Settio	ao I Edit	Admine I Lor	nout (Det	fault Admic)				
			iit Giobal Settini	<u>us i cuir</u>	<u>Admins</u> ( <u>Loc</u>	<u>iour</u> (Dei	rauit Aumin)				_
Target:	ID / Port	Sur	or lleor Lies	neo lleon							
10	.32.80.40 /	143 N	lutare 9	of 1000	6						
1											
Sources:	<u>Edit</u>										
ID	Descript	ion	IP / Port	Super Us	er Mailboxes	5					
1	Initial Sou	rce  192.	50.10.407143	Mutare	9						
Runs (La	ist 5): 🛓	ore									
Sr	c ID Run	ID Type	Star	t	End		Duration	Processed	Total	Errors	Pro
	<u>1 405</u>	Sync	6/18/2010 10:	00:44 AM	6/18/2010 10:0	0:45 AM	1 sec	6	6	0	1
	1 404	Sync	6/18/2010 9:5	59:59 AM	6/18/2010 9:59	:59 AM	0 sec	6	6	0	[
	1 403	Sync	6/18/2010 9:5	59:44 AM	6/18/2010 9:59	:44 AM	0 sec	6	6	0	1
	1 402	Sync	6/18/2010 9:5	59:27 AM	6/18/2010 9:59	:28 AM	1 sec	6	6	0	
	<u>1   401</u>	Sync	6/18/2010 9:4	14:26 AM	6/18/2010 9:44	:27 AM	1 sec	6	6	0	
Mailboxe	s (Last	5): Mon	e   Edit   Find	Mailbox S	rc 💌	fo	r Source ID	1 🔽 Find			
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Errors (I	ast 3):	More									
Errora (E	e ID Run	ID Src M	hx Erro	r Date		Frror M	1sa				
	1 400	5101	0 6/18/2010	9:43:26 AN	1 Connect-D:4	:[Error: C	onnection fa	ilure]:			
	1 400	5101	0 6/18/2010	9:43:25 AN	1 Connect-D2:4	l:[Error: C	Connection f	ailure]:			
	4 400	5100	5 EM9/010	0.40.04.04		IEmen C					



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#### 7.2. In the Event of an Avaya Modular Messaging Outage

In the event of an Avaya Modular Messaging outage, the **Mutare MMEvents** and **Mutare MsgMirror** services must be stopped and disabled to prevent damage to the stored Mailboxes on the backup Avaya Modular Messaging.



2. The following step in performed on Communication Manager. Access to the System Administration Terminal (SAT) screen is required. Both the primary and back up Avaya Modular Messaging systems have their own trunk groups, trunk group 44 for the primary, and 45 for the backup. When the primary Avaya Modular Messaging system is down, the route pattern for messaging needs to point to the backup Avaya Modular Messaging system. From the SAT, enter the change route-pattern 44 command to change Grp No to 45. change route-pattern 44 Page 1 of 3 Pattern Number: 44 Pattern Name: to ModM SCCAN? n Secure SIP? n Grp FRL NPA Pfx Hop Toll No. Inserted No Mrk Lmt List Del Digits DCS/ IXC QSIG Dgts Intw 1:**45** 0 n user 2: n user 3: n user 4: n user 5: n user 6: n user BCC VALUE TSC CA-TSC ITC BCIE Service/Feature PARM No. Numbering LAR 0 1 2 M 4 W Request Dgts Format Subaddress 1: y y y y y n y as-needed rest unk-unk next 2: yyyyyn n rest none 3: y y y y y n n rest none 4: y y y y y n n 5: y y y y y n n 4: y y y y y n n rest none rest none 6: yyyyyn n rest none

3.	Start the <b>MM</b> Messaging M	I Message Waiting Inc IAS server.	licator Serve	er service o	n the backup Avaya Modular
	Log onto the and Password services.msc mouse click a Automatic. S continue.	backup Avaya Modula d information. From the (not shown). Find the l and select <b>Properties</b> . U Select <b>Apply</b> , followed	r Messaging I e desktop, go <b>MM Messag</b> Use the drop- by <b>Start.</b> On	MAS serve to <b>Start →</b> e Waiting I down list fo ce the servi	r using the appropriate Username <b>Run</b> and in the box type <b>Indicator Server</b> service, right or <b>Startup type</b> and select ice has started, select <b>OK</b> to
	A Services				
	Eile Action View	Help			
	$\leftarrow \rightarrow   \blacksquare   \textcircled{1}  $	🖻 🗈 😫 🖬 🕨 🗉 🗉 🖦			
	🍇 Services (Local)	🍇 Services (Local)			
		MM Message Waiting Indicator Server	Name A		Description Status Startup Type  Monitor faults i Started Automatic Descriptions for Started Automatic
		Description: Enables Avaya Modular Messaging subscribers to be notified when MWI rules are met	MM Fax Sender S MM Mailbox Monib MM Message Wail	erver or ting Indicator Server	Provides a hax Started Automatic Monitors Avay Started Automatic Enables Avaya Disabled
			MM Performance	General Log On	Recovery Dependencies
		Extended Standard		Service name:	gv_mwiserver
	<u> </u>			Display <u>n</u> ame:	MM Message Waiting Indicator Server
				Description:	Enables Avaya Modular Messaging subscribers to be a notified when MWI rules are met
				Pat <u>h</u> to executable "'C:\Program Files	e: \\Avaya Modular Messaging\MW/IServer\mwiserver.exe''
				ptartup typ <u>e</u> :	
				Service status:	Stopped
				<u>S</u> tart	Stop Pause Resume
				You can specify th from here.	he start parameters that apply when you start the service
				Start parameters:	
					OK Cancel Apply
			_		

#### 7.3. Restore Voicemail & Greetings

Once service to the Primary Avaya Modular Messaging system is restored, a global restore/update can be done. It will update all Mailboxes with new Voicemail & greetings that were left/changed while running on the backup Avaya Modular Messaging system.

\*\*Note: The restore will not create the user mailboxes, user mailboxes must be restored/created before the Voicemail restore process is started.



3.	Log onto the backup Avaya Modular Messa	ging MAS server using the appropriate Username
	and Password information. From the desktop	p, go to Start $\rightarrow$ Run and in the box type
	services.msc (not shown). Find the MM Me	essage Waiting Indicator Server service, right
	mouse click and select Properties. Change t	the <b>Startup type</b> to <b>Disabled</b> then select <b>Stop</b> .
	Once the service has stopped, select <b>OK</b> to c	continue.
	* Services	
	Eile Action View Help	
	Services (Local)	
	MM Message Waiting Indicator Name	△ Description Status Startup Type ▲
	Server	Fault Monitor Monitor faults i Started Automatic
	Stop the service	Fax Sender Server Provides a fax Started Automatic
	Restart the service	Mailbox Monitor Monitors Avay Started Automatic — Maccade Walting Indicator Server Enables August Started Automatic
		Message waiting Indicator Server Chables Avaya Started Automatic
	Description:	Perfor
	subscribers to be notified when MWI	General Log On Recovery Dependencies
	Extended Standard /	Service name: gv_mwiserver
	2	Display name: MM Message Waiting Indicator Server
		Description: Enables Avaya Modular Messaging subscribers to be notified when MWI rules are met
		Path to executable:
		"C:\Program Files\Avaya Modular Messaging\MWIServer\mwiserver.exe"
		Startup type: Disabled
		Service status: Started
		Start Stop Pause Resume
		You can specify the start parameters that apply when you start the service from here.
		Start parameters:
		OK Cancel Apply

4. The following step in performed on Communication Manager. Access to the System Administration Terminal (SAT) screen is required. From the SAT, enter the change route-pattern 44 command to change the route pattern to point to the trunk group for the primary Avaya Modular Messaging. change route-pattern 44 Page 1 of 3 Pattern Number: 44 Pattern Name: to ModM SCCAN? n Secure SIP? n Grp FRL NPA Pfx Hop Toll No. Inserted No Mrk Lmt List Del Digits DCS/ IXC OSIG Dqts Intw 1: **44** 0 n user 2: n user 3: n user 4: n user 5: n user n 6: user BCC VALUE TSC CA-TSC ITC BCIE Service/Feature PARM No. Numbering LAR 0 1 2 M 4 W Request Dgts Format Subaddress 1: y y y y y n y as-needed rest unk-unk next 2: yyyyyn n rest none 3: ууууул п rest none 4: ууууул п rest none 5: yyyyyn n none rest 6: ууууул п rest none

Bite Action yiew Help         # # # Image: A services (Local)         Mutare MMEvents         Display pane:         Mutare MMEvents         Display pane:         Path to executable:         C:VDD/Programs/MME vents.exe         Startup type:       Automatic         Service status:       Stopped         Startup type:       Automatic         You can specify the start parameters that apply when you start the servition here.	started, select	et <b>OK</b> to continue.	e Mutare <b>MsgMirror</b> service
Image: Services (Local)       Image: Services (Local)         Image: Services (Local)       Image: Services (Local Computer)         Image: Service (Local)       Image: Service (Local)         Image: Service (Local)	File Action View	Help	
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Start         Stop         Bause         Besume           You can specify the start parameters that apply when you start the service from here.         The service servi			Service status: Stopped
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from here.			You can specify the start parameters that apply when you start the ser
			from here.
Start parameters:			Start parameters:

### 8. General Test Approach and Test Results

This section describes the general test approach used during compliance testing and the test results.

#### 8.1. Test Approach

The general test approach was to configure the Avaya Telephony Infrastructure using Avaya Aura<sup>TM</sup> Communication Manager and multiple Avaya Modular Messaging systems to interoperate with the Mutare Software Message Mirror solution (shown in **Figure 1**).

Testing included the creation and deletion of mailboxes. It was verified that mailboxes, messages and greetings created on the primary Modular Messaging system were copied to the backup Modular Messaging system. Once service to the primary Avaya Modular Messaging system is restored, it was verified that voicemail messages and greetings were restored to the primary.

Serviceability test included power cycling the primary and backup Avaya Modular Messaging systems as well as the server that the Mutare Software Message Mirror is running on and verified the solution recovered.

#### 8.2. Test Results

The Mutare Software Message Mirror solution with Avaya Modular Messaging passed all test cases described in **Section 1.1**.

#### 9. Verification Steps

This section provides the steps for verifying the Mutare Software Message Mirror solution with Avaya Modular Messaging. The verification steps include the following.

#### 9.1. From the Message Mirror Admin Webpage:

Under Runs – Verify no Errors have occurred.

51010

51005

#### Mutare Software Message Mirror Admin Edit Global Settings | Edit Admins | Logout (Default Admin) Target: Super User License Usage IP / Port 10.32.80.40 / 143 Mutare 9 of 1000 Sources: Edit ID Description IP / Port Super User Mailboxes 1 Initial Source 192.50.10.40 / 143 Mutare 9 Runs (Last 5): More Src ID Run ID Type Start End Duration Processed Total Errors Progress 413 Syne 6/18/2010 12:58:54 PM 6/18/2010 12:58:55 PM 6 6 0 Done 1 1 sec 6 Sync 6/18/2010 12:58:14 PM 6/18/2010 12:58:15 PM 0 1 412 1 sec 6 Done 1 411 Sync 6/18/2010 12:56:42 PM 6/18/2010 12:56:43 PM 1 sec 6 6 o Done Sync 6/18/2010 12:17:47 PM 6/18/2010 12:17:47 PM 1 410 O sec з з 0 Done Sync 6/18/2010 12:03:46 PM 6/18/2010 12:03:46 PM з 1 409 0 sec з 0 Done for Source ID 🛛 🔽 F Find Mailboxes (Last 5): More | Edit | Find Mailbox Sro 🕑 Src ID Run ID Src Mbx Dest Mbx Sro Cnt Dest Cnt Errors End Start 1 413 51010 51010 6/18/2010 12:58:55 PM 6/18/2010 12:58:55 PM 3 з 0 6/18/2010 12:58:55 PM 6/18/2010 12:58:55 PM 0 1 51012 51012 0 0 413 6/18/2010 12:58:55 PM 6/18/2010 12:58:55 PM 413 51013 51013 0 0 0 1 52000 6/18/2010 12:58:55 PM 6/18/2010 12:58:55 PM 0 0 0 1 413 52000 1 6/18/2010 12:58:55 PM 6/18/2010 12:58:55 PM 0 0 <u>413</u> <u>52002</u> 52002 0 Errors (Last 3): More Sre ID Run ID Sre Mbx Error Date Error Msg 6/18/2010 9:43:26 AM Connect-D:4:[Error: Connection failure]: 1 400 51010

#### Powered By: Mutare.Software

6/18/2010 9:43:25 AM Connect-D2:4:[Error: Connection failure]:

6/18/2010 9:43:24 AM Connect-D:4:[Error: Connection failure]:

1

1

400

400

#### 9.2. Verify Backup

Leave a Voicemail message and verify that it is being saved to the backup Avaya Modular Messaging system. For this example, mailbox 51010 will be used.

From the Message Mirror Admin Webpage:

Under Mailboxes – Verify that the Scr Cnt and Dest Cnt are the same.

		lute		SOIL	vare	wes	sage			1111			
			Edit G	obal Settings	Edit.	Admins   Log	<mark>gout</mark> (Defa	ult Admin)					
Farget:													
	IP	/ Port	Supe	r User Lice	nse Usage								
	10.32.8	30.40 / 14	43 M	utare 9	of 1000								
ource	S: Edit												
	ID De	scription	۰ I	IP / Port	Super U	lser Mailboxe:	5						
	1 Init	ial Sourc	e 192.5	0.10.40 / 143	3 Mutai	re 9							
kuns (L	ast o	): <u>More</u> Run ID	Turce	01-01		End		Duration	Propossed	Total	Errore	Progra	
	1	413	Svnc 6	/18/2010 12:	58:54 PM	6/18/2010 12#	58:55 PM	1 sec	6	6	0	Done	
	1	412	Sync 6	/18/2010 12:	58:14 PM	6/18/2010 12:	58:15 PM	1 sec	6	6	0	Done	
	1	411	Sync 6	/18/2010-12:	56:42 PM	6/18/2010 12:	56:43 PM	1 sec	6	6	0	Done	,
	1	410	Sync 6	/18/2010 12:	17:47 PM	6/18/2010 12:	17:47 PM	0 sec	3	З	0	Done	
	1	409	Sync 6	/18/2010-12:	03:46 PM	6/18/2010 12:	03:46 PM	0 sec	3	З	0	Done	
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		413	51010	51010	8/18/201	518n 1 12:58:55 PM	8/18/2010	End	PM 3	uesi		n n	
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	1	413	52002	52002	6/18/201	0 12:58:55 PM	6/18/2010	12:58:55	PM 0		)	0	

Src ID	Run ID	Src Mbx	Error Date	Error Msg
1	400	51010	6/18/2010 9:43:26 AM	Connect-D:4:[Error: Connection failure]:
1	400	<u>51010</u>	6/18/2010 9:43:25 AM	Connect-D2:4:[Error: Connection failure]:
1	400	<u>51005</u>	6/18/2010 9:43:24 AM	Connect-D:4:[Error: Connection failure]:

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#### 10. Conclusion

These Application Notes describe the configuration steps required for integrating the Mutare Software Message Mirror solution with primary and backup Avaya Modular Messaging systems. For the configuration described in these Application Notes, the Mutare Software Message Mirror solution was responsible for mirroring the messages, names, greetings and passwords of the enterprise Avaya Modular Messaging system to a backup Avaya Modular Messaging.

#### 11. Additional References

The documents referenced below were used for additional support and configuration information.

This section references the Avaya documentation relevant to these Application Notes. The following Avaya product documentation is available at <u>http://support.avaya.com</u>

- [1] *Administering Avaya Aura™ Communication Manager*, June 2010, Issue 6.0.0, Document Number 03-300509.
- [2] Installing, Administering, Maintaining, and Troubleshooting Avaya Aura<sup>™</sup> SIP Enablement Services, November 2009, Issue 8.0, Document 03-600768.
- [3] Modular Messaging Admin Guide Release 5.2 with Avaya MSS
- [4] Avaya one-X Deskphone Edition for 9600 Series IP Telephones Administrator Guide Release 3.1, Document Number 16-300698.
- [5] Avaya one-X Deskphone SIP for 9600 Series IP Telephones Administrator Guide, Release 2.6, Document Number 16-601944.

The Mutare Software product documentation can be found at: <u>http://mutare.com/support.asp</u>

- [6] Message Mirror Pre-Install document http://www.mutare.com/data/td/152-PreInstallEVMforMM.pdf
- [7] Server requirements <u>http://www.mutare.com/data/td/154-AppServer.pdf</u>

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