

#### Setting up an SMTP Email System

Using Isode's M-Switch SMTP (MTA) and M-Box (message store) to set up an SMTP email system for local message exchange and connection to external SMTP systems.

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#### Introduction

This guide is intended for R18 of Isode products and details the process for creating an Internet based messaging system using Isode's M-Switch SMTP and M-Box products. M-Switch SMTP is one of a family of email messaging products which comprises:

- M-Switch SMTP (SMTP Message Transfer Agent)
- M-Box (POP/IMAP Message Store)
- M-Switch X.400 (X.400 Message Transfer Agent)
- M-Store (X.400 Message Store)
- M-Switch MIXER (message gateway providing conversion between X.400 and Internet email according to the MIXER specifications)
- M-Switch Constrained Networks (Email Messaging for low-bandwidth and/or highlatency networks)
- Isode Harrier (web-based email client)

You will test the system by sending email messages using Isode's Harrier Web email client (refer to the "Harrier Evaluation Guide" for this part of the evaluation).

M-Switch products are widely deployed in the Government, Military, Intelligence, Civil Aviation and EDI markets.

**Use of TLS**: Due to UK Export Controls we are unable to provide Evaluation Licenses to certain Geographic regions that would allow the use of TLS so this guide will not configure any TLS. Should you wish to use TLS please contact your Account Manager and if you are located in an approved region, we can provide a license (MAC Address of Server required) and additional instructions for configuring TLS.

#### Objectives

By the end of this guide you will have:

- 1. Created an M-Switch SMTP server with the message configuration held in a Directory Server (Isode's M-Vault LDAP Directory)
- 2. Created two internet users/mailboxes in an M-Box message store
- 3. Exchanged messages between these two users with the Harrier Web email client (the Harrier Evaluation Guide will be required).
- 4. Created a connection to an external SMTP server (optional)
- 5. Sent a message to a remote user using that connection (optional)

You'll use the MConsole (Message Console) management GUI to set up your system. MConsole is Isode's central tool for messaging system Configuration and Operational management for both Internet and X.400 Messaging deployments.

This guide uses the domain name "*headquarters.net*" to refer to the system being created here and "*field.net*" to refer to the external SMTP server required for steps 4 and 5. For "field.net" this guide uses the M-Switch MIXER instance set up in the "Isode M-Switch MIXER" evaluation guide.

The diagram which follows shows the main elements of the system.

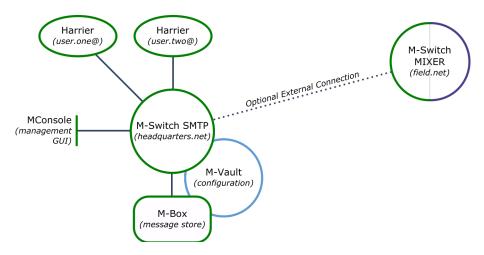


Figure 1: An Internet based messaging system using Isode's M-Switch SMTP and M-Box products.

For the purposes of this evaluation we have assumed this is a "clean" installation of M-Switch SMTP on to a physical or virtual machine. If you have previously installed an M-Switch product on the hardware or VM you are using for this evaluation, please make sure you have completely uninstalled that version before proceeding.

#### Using Isode Support

You will be given access to Isode support resources when carrying out your evaluation. Any queries you have during your evaluation should be sent to *support@isode.com*. Please note that access to the Self-Service Portal for web-based ticket submission and tracking is not available to evaluators.

#### Preparation

You should visit *www.isode.com/products/supported-platforms.html* to discover which operating systems are supported for Isode evaluations. Please note that in addition to the server platforms listed, we support the use of Isode servers on Windows 10 for simple evaluations and demonstrations.

#### Isode Products

Product downloads are held in a password-protected section of the Isode website. If you have not already done so you should apply for a username/password by filling in the form located at *www.isode.com/evaluate/evalrequest.html*.

Products can be obtained by clicking on the links in the "Download Links" section of the Evaluation page (*www.isode.com/evaluate/evaluate-email.html*). The downloads page will give installation instructions specific to your platform.

#### Isode Harrier Evaluation Guide

For testing your configured system that you will build following this guide, you will require the Harrier Evaluation Guide, which describes the setup and use of Harrier, Isode's browser-based email client.

That evaluation guide is available www.isode.com/evaluate/evaluate-email.html.

#### **Product Activation Key**

Isode server products require a valid Product Activation Key from Isode before they will run correctly. Keys are issued by Isode Customer Services. If you haven't already been sent a Key when requesting access to the evaluation files, please send a message to request one to *support@isode.com* remembering to specify which Isode server products you need a Key for.

By default, the file you receive needs to be placed in \*Isode*\etc\ (Windows) or /etc/isode/ (Linux), renamed as 'license.dat'. You may have chosen an alternative installation directory when installing the software, in which case you will have to place the license file there.

#### **External SMTP Server Details**

The optional 4<sup>th</sup> and 5<sup>th</sup> objectives in this guide assume that you already have access to an external SMTP server, which this installation will exchange messages with. This may be a system you have previously configured or it may be a system you have set up as part of the Isode "M-Switch MIXER" evaluation.

In either case, if you wish to complete these optional objectives, ensure you have the connection details of that external system.

#### **Create a Messaging Configuration using MConsole**

In this section you'll use MConsole to create a Directory Server to hold the messaging system configuration.

#### Starting MConsole

In Windows locate the MConsole program icon and select it. On Linux execute the following command:

% /opt/isode/bin/mconsole

When MConsole starts, click on [Yes] when asked to confirm the encryption of your bind profile.

Confirm	n Encryption X
?	This operation encrypts sensitive data in the bind profile file, which means that the bind profile can be used to store passwords (for simple authentication), and passphrases (for X.509 identities).
	Once the data is encrypted, you will be prompted to enter your passphrase whenever an application needs to decrypt data in the profile file; failing to enter the correct passphrase means you will not be able to use any saved bind profiles. Note that once you have encrypted the data, you cannot subsequently choose to decrypt it.
	Do you really want to encrypt your bind profile file?
	<u>Y</u> es <u>N</u> o

Figure 2: Bind Profile Creation

Enter a Profile Passphrase when promoted (making a note of this), click on **[OK]** to submit and **[OK]** again when the encryption confirmation is displayed.

Enter Profile passph	irase X
and means that yo	file passphrase. This will be used to encrypt all of the passwords, ou will be prompted for this passphrase from now on whenever you ult Console, MConsole or M-Link Console.
Passphrase:	•••••
Verify Passphrase:	•••••
	OK Cancel

Figure 3: Enter Bind Profile Passphrase

#### **Creating a new Directory Server**

In the **Welcome to Message Console** screen (Figure 4) select the "Create a new DSA and Messaging Configuration" option, click **[OK]** and then provide an Initial Directory User Name (Figure 5). This can be any name, this guide uses "Messaging Admin".

MConsole (Welcome to Message Console)	_	٥	×
<u>File Window View H</u> elp			
😨 Welcome to Message Console 🕱			
Welcome to Message Console			^
If you see this screen, then you may be running MConsole for the first time on this computer.			
The Messaging Configuration is held in a Directory Server (DSA).			
If you wish to set up a DSA and a complete new Messaging Configuration on this computer, choose the "Create a new DSA a Configuration" option.	and Mess	aging	
If you wish to create a Messaging Configuration using a DSA which is already running on another computer choose the "Cre Messaging Configuration" option.	ate a nev	N	
The other options are for management of existing Messaging Configurations, and can also be accessed from the View menu	1		
Create a new DSA and Messaging Configuration			
Connect to an existing Messaging Configuration	n (if any)		
Monitor existing Message Switches Monitor existing X.400 Message Stores			
Track messages List quarantined messages			
Track message acknowledgements			~
			) Help

Figure 4: MConsole Welcome Screen

🛅 Choos	se the Initial Directory User's Name		×
Choose	the Initial Directory User's Name		
configurati monitoring	provide the name of the person who will be set up as the initial man ion, and will also be able to connect to the Queue Manager via SON g purposes. You will be able to add extra managers with more restric tion has been set up.	A for management and	
User name	Messaging Admin		
		OK Cano	el

Figure 5: Choose the Initial Directory User's Name

You now need to choose a top-level Directory Server DN for your installation, this can be any o="any name", it defaults to "o=messaging". This guide uses "o=Headquarters".

Create Directory Serve	r					×
DIT structure configu	iration					
Adjust the DNs provided	by the template	to suit your requi	rements			
Base DN						
o=Headquarters						
Initial Directory User: Thi bind as this user. Afterw which roles. You should a	ards you can cre	ate more users an	d change which	users	are put in	
cn=Messaging Admin,	:n=Users,o=Hea	dquarters				
	< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish		Canc	el

Figure 6: DIT Structure Configuration

In the Password Configuration screen, set a password for the Messaging Admin user and then click [Next].

🛅 Create Dir	ectory Serve	er.					×
Password o	configurat	tion					
Passwords ar	e auto-gene	erated, but can be	modified here if re	quired			
Initial Directo	ory User: cn:	Messaging Adm	in, cn=Users, o=Hea	dquarters			
Password:	•••••						how
			Copy password to	clipboard	Save	password to	o file
Record us	er authentio	ation times (auth					
Password H	lashing						
mechanism Note that w	ns other thai	n PLAIN, LOGIN a ashed passwords	are not compatible nd SCRAM-SHA-1. may be recovered f				ł
Hash all	passwords	using SCRAM-SH	A-1				
		< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish		Cance	al

Figure 7: Password Configuration

In the next two screens **Bind Profile Names and Filesystem Location** and **Address Configuration**, use the suggested values and click [Next] through both screens before reaching the **Confirm Details** screen.

*Click on* [*Finish*] *here (Image 7) and the DSA will be created and started.* 

Create Directory Server		×
Confirm Details		
Check the details below before creating the DSA		
DSA creation template: Simple DSA setup for Messaging Evaluations		~
DSA address: Host HEADQUARTERS, X.500 on port 19999, LDAP on port 19389		
DSA name: cn=dsa,o=Headquarters		
Bind profile name: cn=dsa,o=Headquarters / Messaging Admin		
Password hashing: None		
		~
< <u>Back</u> Next > <u>Finish</u>	Canc	el

Figure 8: Confirm Details

#### **Create a New Messaging Configuration**

After the creation of the DSA, MConsole will prompt you to create a new messaging configuration.

Highlight the "o=Headquarters" entry (Figure 9), click [Next] and then select "SMTP (M-Switch SMTP)" when prompted for a messaging configuration type (Figure 10).

🛅 Create a new MHS configur	ration				_		×
Set the Messaging Confi	guration	n Base D	N				
Select the entry under which a created	Messagin	g Configu	ration entry	y will be			
> o=Headquarters							
y official quarters							
							_
If you provide an organization created automatically under th			he organiz	ation name p	rovide	d will be	
Create organization name							
Messaging configuration nam	ie						
Messaging Configuration							
Messaging Configuration Base DN: o=Headquarters MHS DN: cn=Messaging Confi	guration, o	=Headqua	irters				
Base DN: o=Headquarters	guration, o	=Headqua	irters				
Base DN: o=Headquarters	guration, o	=Headqua	irters				
Base DN: o=Headquarters	guration, o	=Headqua	irters				
Base DN: o=Headquarters MHS DN: cn=Messaging Confi	guration, o < <u>B</u> ack	=Headqua		<u>F</u> inish		Cance	el

Figure 9: Create a New MMHS Configuration

Create a new MHS configur	ration					$\times$
Messaging Configuration	n Type					
Select the type of messaging o	onfiguratio:	n you want to cr	eate.			
Please select the Message Han NB: Once the MHS system is c			from one type to	) anothe	er.	
SMTP (M-Switch SMTP)						
Create a system which can	process Int	ernet email only.	]			
X.400 MTA (M-Switch X.400) Create a system which can X.400 and SMTP (M-Switch M Create a system which can	ultiprotocol	)	and others.			
	< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish		Cance	el

Figure 10: Select Messaging Configuration Type

Click [**Next**] and MConsole will prompt for a Market Segment choice (choose General Purpose), in the next screen accept the default for the fully qualified hostname and click [**Next**] again.

You'll now be asked (Figure 11) to enter an email address domain, in this guide we'll use "headquarters.net". You should also tick the option to create an Internet Message Store (M-Box). Unless you have DNS set up for this domain, select "Don't use DNS".

Create a new MHS configuration			×
SMTP channel specific settings and routing policy			
Enter the internet domain regarded as local to this MTA.			
The email address domain this MTA is responsible for, e.g isode.com			
Email address domain headquarters.net			
Create an Internet Message Store for local POP3 or IMAP users			
O Use DNS			
Use MX records			
Don't use DNS			
a Darda Marta area		C	
< <u>B</u> ack <u>N</u> ext > <u>F</u> inisl	1	Cance	1

Figure 11: Channel Specific Settings and Routing

In the next two screens (Administrator Authentication Details and Anti-Virus Configuration) accept the presented defaults and click [Next] through both to arrive at the Harrier Web Server Configuration screen (Figure 12).

Tick the "User Harrier Web mail service" option, the SSL support should be set to "off".

Create a new MHS configuration		×
Harrier Web Server Configuration		
Configure Harrier Web Server.		
Use Harrier Web mail service 🗹		
SSL support (HTTPS/WS)  ● Off  ○ On  ○ Only		
< <u>B</u> ack <u>Next &gt;</u> <u>Finish</u>	Cance	el

Figure 12: Harrier Web Server Configuration

Click [Next] and accept the defaults on the Service File Creation screen (Figure 13) and then click [Finish].

Create a new MHS configuration —		×				
Service File Creation						
Create default configuration files to enable service startup						
This file allows the MTA to connect to the DSA, and download its configuration.						
Create mtaboot.xml 🗹 C:\lsode\etc\switch\mtaboot.xml	Bro	owse				
M-Box uses the ms.conf to store its configuration						
Create ms.conf 🗹 C:\lsode\etc\ms.conf	Bro	owse				
Harrier Web Server uses the harrier_web_conf.xml to store its configuration						
Create harrier_web_conf.xml						
< Back Next > Finish	Cance	el				

Figure 13: Service File Creation

In the Create Isode Services screen, ensure that M-Switch, M-Box and Harrier Web Server services are selected (Figure 14) and then click [**Finish**] to be dropped back into the main MConsole screen.

Create Isode Services				×
reate Isode Services				
Select the services from the s	service groups that you want to create			
M-Vault M-Switch M-BOX M-Log M-Store Audit Database Tomcat Harrier Web Server	Harrier Web Server			
	Fini	ch	Canc	al

Figure 14: Create Isode Services

The "smtp-auth" channel by default does not allow connections from IP Addresses with invalid hostnames. In some situations, this can cause problems with the Isode Harrier Web Mail Servers so it is best to enable this before proceeding.

Expand your Message Transfer Agents (HEADQUARTERS in this example), highlight the "smtpauth" channel and select the "Program" Tab. Set "Allow IP addresses with invalid hostnames" to **Yes** (bottom of Figure 15).

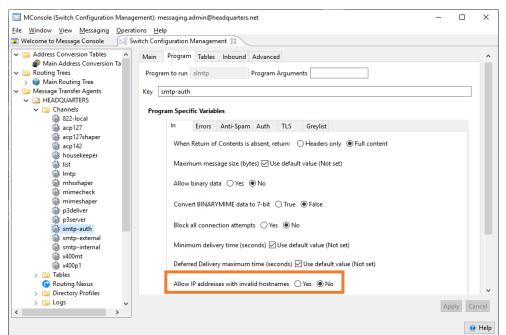


Figure 15: Allow IP addresses with invalid hostnames

Click [Apply] and ignore the warning message that appears.

#### Start and Connect to Services

You should now start the services for the installed products. On Windows select the "Isode Service Configuration Tool".

In the Service Configuration GUI, ensure that all services are set to a Start Type of "Automatic". Then select "Start All" from the Operations menu. Once your service configuration matches that in Image 15, you can close the Service Configuration GUI.

Service Configuration Service Configuration <u>Operations</u>	<u>V</u> iew <u>H</u> elp				-		×
Isode Services	sh 🕨 Star <u>t</u> 🕨	• Start Tr <u>e</u> e 🔞 St	op 🗙 Re <u>m</u> ove				
<ul> <li>Isode DSA cn=dsa,o=He</li> <li>Isode M-Switch Quet</li> <li>Isode M-Switch S</li> <li>Isode Harrier Web Server</li> <li>Isode M-Box IMAP serve</li> <li>Isode M-Box LMTP serve</li> <li>Isode M-Box LMTP serve</li> <li>Isode M-Box Manageme</li> <li>Isode Event server</li> </ul>	Service Name [ Service Status ]	Running Automatic ~	o=Headquarters / M	essaging Admin			^
Isode M-Box POP3 serve	Product M-Vault HGE-TLS <		Latest Version 18.1 Not Licensed	Expiration 08-Jan-2020 N/A	Valid VES NO	>	▼ ncel
Abort					. 11.0		

Figure 16: Service Configuration

On Linux execute the following commands:

- # /etc/init.d/pp start
- # /etc/init.d/mbox start
- # /etc/init.d/harrrierwebserver start

Now return to MConsole and select "View > Live Operations > Switch Operations". Dismiss the Error dialog boxes and right-click on the MTA with the Red "X" next to it (HEADQUARTERS in this example – Figure 17) and select "Modify".

		perations): messaging.admin@headquarters.net Switch Channels Peer MTA Message Recipient S	envicer Heln	_	٥	×
Welcome to Me		a constant and the	Switch Operations			
🔋 Refresh 🛛 🕞 R	2	Refresh Switch	nels			
HEADQUA		Edit Switch Configuration				
- Herb Qor	-	Add				<u>^</u>
	$\bigcirc$	Modify	ISCONNECTED			
	۲	Remove				
		Connect				
	00	Disconnect				
Connect to Service Control Manager		Connect to Service Control Manager				
Disconnect from Service Control Manager		Disconnect from Service Control Manager				
Increase maximum channelsIncrease operation rate		Increase maximum channelsIncrease operation rate				
Decrease maximum channelsDecrease operation rate		Decrease maximum channelsDecrease operation rate				
	Ø	Enable submission				
	10	Disable submission				
	Ø	Enable all channels				
	8	Disable all channels				
		Check Routing				
	Ø	Reload message queue				
	À	Reprocess queue				>
L	٢	Reload configuration				
	0	Shutdown			۲	) Help

Figure 17: Modify Message Switch

In the **Edit Message Switch** screen (Figure 18), change the password to the one you created for the Initial Directory User "Messaging Admin" and click **[OK]**.

🛅 Edit Message Switch			×				
Friendly Name	HEADQUARTERS						
Host	HEADQUARTERS						
Userid	messaging.admin@headqua	arters.net					
Password secret			Hide				
Authentication Mechanis	m DIGEST-MD5		~				
Use TLS for SOM protocol MTA ACP127 Monito	Dring ACP127 OTAM						
MTA DN: HEADQUARTERS V							
Port 🗌 Override port							
No services							
Host Aliases							
the same MTA is know - the hostname or IP o	to correlate MTA names when a n to the Audit DB by different f a system hosting the MTA ha use, and the MTA has failed ov	names. This can ha is changed					
			Add Remove				
		ОК	Cancel				

Figure 18: Edit Message Switch

Back in the main MConsole screen (Figure 19), the MTA should now connect automatically. If it does not connect, right-click on the MTA again and select "Connect".

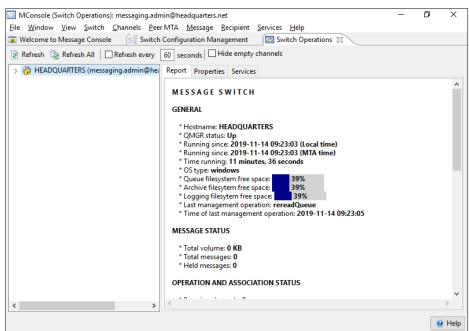


Figure 19: Connect



#### **Create Local Internet Users**

In MConsole, select "View > Configuration > Internet Mailbox Management" and click on the Add MBox User button. In the screens that follow, select the M-Box: Person radio button (Figure 20) and then assign that person an email address of "user.one@headquarters.net" (Figure 21).

Add M-Box Mailbox			×
Choose type of Internet User			
Select the type of user you wish to create.			
M-Box: Person			
O M-Box: Role			
O M-Box: Mailbox only and no White Pages			
< <u>B</u> ack <u>N</u> ext > <u>F</u> inis	h	Ca	ancel
Figure 20: Choose User Type			

Add M-Box Mailbox			-		×
Internet Address					
Confirm the Internet Address for	this user				
Email user.one	@	headquar	ters.net	 	$\sim$
Firstname / Surname: User			One		
Password secret				 н	ide
< <u>E</u>	ack [	<u>\</u> ext >	<u>F</u> inish	Cancel	

Figure 21: Confirm Internet Address

Click on [**Finish**] and then repeat this process for an additional user "user.two". After adding both users, MConsole should display them as in Figure 22.

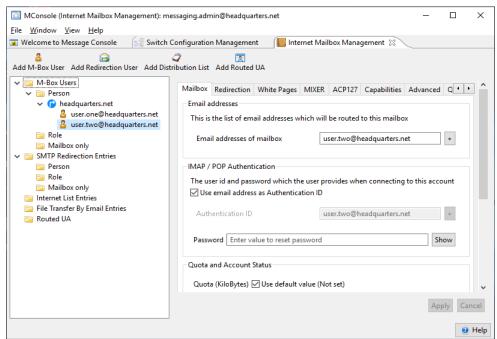


Figure 22: Users Added

#### Testing with an Email Client

You can test exchanging messages between your two users using any email client (remembering to alter DNS records so that your client(s) recognize the 'headquarters.net' domain name).

We would recommend using Isode's Harrier browser-based email client. Harrier is capable of being used as a military messaging client as well as a standard internet mail client.

An evaluation guide, showing you how to set up Harrier is available from *www.isode.com/evaluate/evaluate-email.html*.

# **Connect to External SMTP Systems & Testing using MConsole**

You have successfully set up an SMTP system for exchange of local messages, in the following (optional) parts of this document you'll be guided through the process of connecting your system to an external SMTP system.

For the purposes of this guide we have assumed that the external system is that which is set up as part of the "Setting up an SMTP/X.400 MIXER Gateway" guide. If you are connecting to a different system, please substitute connection details as appropriate.

There are three scenarios for connecting to an external SMTP system:

- 1. There is DNS in place for the external Internet domain(s)
- 2. There is no DNS in place and all Internet addresses for the domain go to the same server
- 3. There is no DNS in place and all Internet addresses for the domain go to different servers

For scenario 1, there is no work needed and mail should be routed according to DNS. The configuration for scenarios 2 & 3 are the same and are as follows.

#### Core Configuration (Scenarios 2 & 3)

Within MConsole, select the Switch Configuration Management view, select the HEADQUARTERS MTA and the Lookup tab (Figure 23).

MConsole (Switch Configuration Management): messaging.admin@headquarters.net	_		Х
<u>File W</u> indow <u>V</u> iew <u>M</u> essaging <u>O</u> perations <u>H</u> elp			
👿 Welcome to Message Console 🛛 🖂 Switch Configuration Management 🕱			
✓ Image: Address Conversion Tables         Image: Address Conversimentables         Im		Edit	^
> IEADQUARTERS       Image: Statemal Message Transfer Agent       Image: Statemal Message Stores       ✓ Internet Message Stores       Connection Details		how	
Image: Stobe Servers     Subaddressing       Image:			
	Pi	ck	

Figure 23: Switch Configuration Management

Click on [Edit] next to the "Lookup policies" field and then click on [Add] to create a new lookup policy.

In the **New lookup policy item** screen (Figure 24), select "ds" from the dropdown and click **[OK]**.

🛅 New lookup p	policy item X
Select policy type	ds v
Prefix	
Description	Use X.500 for lookup
	OK Cancel

Figure 24: Lookup Policies

Now highlight the new lookup policy and use the [**Move Up**] button to raise it to the top of the policy list (Figure 25).

		mplex combination
kup policy list		🕂 Add
e-laser		 🗙 Remove
		1 Move Up
		I Move Down
otion	-	
vtion		4.1000

Figure 25: Set Default Lookup Policy

Now click **[OK]** to return to the Switch Configuration Management screen and click on **[Apply]** to commit this change.

From the **Switch Configuration Management** view in MConsole (Figure 26) right-click on the "Main Routing Tree" and select "Add Nodes".

		MConsole (Switch Confi	guration Mar	nage	ment): me	essaging.admin@headquarters.net
	File	Window View Mes	saging Ope	erati	ons Help	3
	۷ 😅	Velcome to Message Cor	nsole	Sw	itch Confi	guration Management 🟼
	~	Address Conversion Main Address Conversion		١	MTA Info	Filters
	×	Routing Trees				
		> 🌏 Main Routing Tre			MTA G	roup
	~	Message Transfer Ac Message Transfer Ac	Add no	des		
		External Message Training	Delete.	•		
		X.400 Message Stores	-			
	~	Internet Message Stores				
	<b>•</b>	Internet Message Sto				
	~	S5066 Servers				Subtree Information: O All children present
	<b>•</b>	K HEADQUARTERS				
	~	ACP127 S5066 Access	Points			
	<b>•</b>	HEADQUARTERS:			Routin	n Nexus
		CFTP S5066 Access P			Kouting	y Nexus
		HEADQUARTERS:				$\sim$
L	1	The to go Anterior				

Figure 26: Create New Routing Tree Nodes

Make sure the "Create Routing Tree entries representing an Internet domain" option is selected in the **Names and Domains** screen (Figure 27) and click [**Next**].

	$\times$
Cance	el
_	- D

Figure 27: Domain Type for the New Routing Tree Node

In the **Internet Mail Domain** screen (Figure 28) enter "field.net" as the remote Internet Mail Domain.

Create new Routing Tree Nodes	_		×
Internet Mail Domain			
Provide an Internet domain to create in this Routing Tree			
Internet Mail Domain			
field.net			
< <u>B</u> ack <u>N</u> ext > Fi	inish	Cano	el

Figure 28: Internet Mail Domain

Click [**Finish**] to return to the main MConsole screen where you'll now see the new Field.net node in the main routing tree (Figure 29).

In the Message Transfer Agents part of this same screen, expand your HEADQUARTERS MTA and the Tables sub-entry, select "domain" and click [Add].

MConsole (Switch Configuration Ma	inagement): messaging	.admin@ł	neadquarters.net		-		×
<u>File Window View M</u> essaging Op	perations <u>H</u> elp						
😨 Welcome to Message Console	🖏 Switch Configuration	Manager	ment 🛿				
✓      ✓ Address Conversion Tables     ✓      ✓ Main Address Conversion     ✓ Main Routing Trees     ✓ Main Routing Tree     ✓ Main Routing Tree     ✓ Main Routing Tree     ✓ field     ✓ field     ✓ field     ✓ field     ✓ Message Transfer Agents     ✓ field     ✓ HEADQUARTERS     ✓ Tables     ✓ Tables     ✓ channel     ✓ channel     ✓ channel	Main Table Name File name (if used) Description Flags dir ~	domain domain Mappin	g domain key ->full do Value mta=internet	omain/MTA		+ Add	
mimecheckin	headquarters.net		local			Remove	
mimecheckout							
or						🖉 Edit	
Routing Nexus     Directory Profiles     Sing Logs						🖹 Load	
📄 External Message Transfer Ag							
X.400 Message Stores Internet Message Stores >					Ap	oply Car	ncel
							Help

Figure 29: New Domain

In the Add a table entry screen, enter the external internet domain for the Key and "local" for the Value (Figure 30) and click **[OK]**.

🛅 Ad	dd a table entry	×
Key	field.net	
Value	local	
	OK Cancel	

Figure 30: Add a table entry

Back in the main MConsole screen, right-click on "External Message Transfer Agents" and select "New External MTA" (Figure 31).

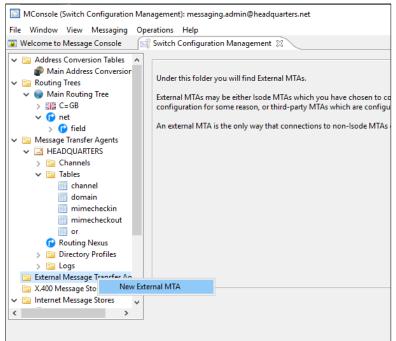


Figure 31: New External MTA

In the MTA Type screen, check the "SMTP" radio button and click [Next].

Create a new MTA		×
MTA type		
Select the type of MTA you want to create		
External MTA (Non Isode MTA, or non tailoring MTA)		
● SMTP		
○ X.400		
◯ SMTP and X.400		
○ ACP 127 Station		
O ACP 142 (STANAG 4406 Annex E or MULE)		
○ CFTP		
⊖ SLEP		
○ X.400 Gateway (using the Isode or Open Group Gateway API)		
○ X.400 P1 File Gateway		
○ X.400 P1 over HTTP Gateway		
< <u>B</u> ack <u>N</u> ext > <u>F</u> inish	Cance	el

Figure 32: Create External MTA

In the MTA Naming screen (Figure 33) enter the "Directory Name", this can be free text that is helpful for you to remember what the MTA is. For the "Destination" either enter the hostname or IP Address of the SMTP Server.

🛅 Create a new MTA					×
MTA Naming					
An External Internet MT Messaging Configuration		arbitrary name ir	n your		
The local name for the	external MTA in th	is configuration			
Directory Name FIELD	(SMTP)				
The mail domain or hos also possible to specify has the "nomx" flag set	an IP address, but	that will require			
Destination 10.178.0.1	1				
Optional local descripti	on for the new MT	A			
Description				 	
	< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish	Cance	al

Figure 33: MTA Naming

Now click [Finish] to return to the main MConsole screen where the new External MTA will be shown (Figure 34).

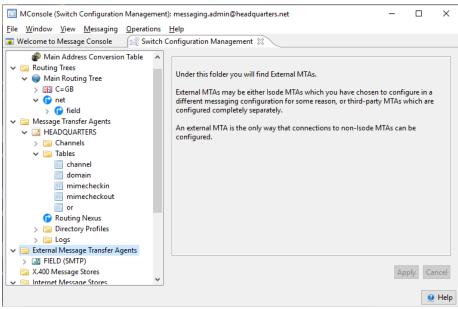


Figure 34: New External MTA

#### Additional Configuration (Scenario 2 Only)

Follow these additional instructions if there is no DNS in place and all Internet addresses for the domain go to the same server.

In MConsole select the external internet domain (field.net here) from the main routing tree and click [Add] next to the MTA Group (Figure 35).

MConsole (Switch Configuration Management): messaging_admin@headquarters.net       -       -       ×         Ele Window View Messaging Operations Help         Welcome to Message Console       Switch Configuration Management IS         Welcome to Message Console       Switch Configuration Management IS         Main Address Conversion Table       Main Routing Tree         Message Transfer Agents       HEAPOULARTERS         HEAPOULARTERS       Subtree Information: () All children present () Not all children present         MathaDoularTERS       Subtree Information: () All children present () Not all children present         Message Transfer Agents       MathaDoularTERS         HEAPOULARTERS       Subtree Information: () All children present () Not all children present         Message Stores       HEAPOULARTERS         Stores Stores       HEAPOULARTERS         Stores Stores       HEAPOULARTERS         Stores Stores       HEAPOULARTERS         Stores Stores       HEAPOULARTERS         Store Stores       Non-wildcard synonym         Step Stores Access Points       Wildcard synonym         Step Stores Access Points       Wildcard synonym					
<ul> <li>Welcome to Message Console</li> <li>Switch Configuration Management 13</li> <li>Address Conversion Tables</li> <li>Main Address Conversion Table</li> <li>Main Address Conversion Table</li> <li>Main Rotting Tree</li> <li>Main Rotting Tree</li> <li>Main Rotting Tree</li> <li>Test C-G8</li> <li>Test C-G8</li></ul>	MConsole (Switch Configuration Management): messaging.admin@headquarters.net	-		>	<
✓ Main Address Conversion Tables         ✓ Main Address Conversion Table         ✓ Main Address Conversion Table         ✓ Main Routing Tree         ✓ Main Routing Tree         ✓ Main Routing Tree         ✓ Message Transfer Agents         ✓ Message Stores         ✓ Internet Message Stores         ✓ HEADQUARTERS         ✓ Message Stores         ✓ MethaQUARTERS         ✓ AdPlatz Stores         ✓ AdPlatz Stores         ✓ MethaQUARTERS         ✓ AdPlatz Stores         ✓ MethaQUARTERS         ✓ Message Stores         ✓ HEADQUARTERS         ✓ AdPlatz Stores         ✓ Message Stores         ✓ HEADQUARTERS         ✓ Stored Servers         ✓ HEADQUARTERS         ✓ Store Solids Access Points         ✓ HEADQUARTERS:1         ✓ Store Stores Solids         ✓ HEADQUARTERS:1         ✓ Store Stores Solids         ✓ HEADQUARTERS:1         ✓ Store Stores Solids	Eile Window View Messaging Operations Help				
MTA Info  Main Address Conversion Table  Concel  MTA Info  MTA Group  MTA Info  MTA Group  Add  Remove Edit  Subtree Information:  All children present  Add  Remove Edit  Subtree Information:  All children present  MTA Info  MTA Group  Concel  MTA Group  Concel	💽 Welcome to Message Console 🛛 🕅 Switch Configuration Management 🔀				
	Main Address Conversion Table Routing Trees Routing Trees Routing Trees Routing Tree Subtree Information: () All children present () Not all children prese	Remc	t		_

Figure 35: Add MTA Info

In the Edit MTA Info screen (Figure 36), select the MTA you have just created from the dropdown list and click **[OK]**.

🕑 Edit MTA Info		×
By editing the MTA information for this routin for the selected O/R hierarchy	g tree node, you can set the routing	
Routing for this node		
Select the MTA that is going handle th	is node	
cn=FIELD (SMTP)		~
Dealing with multiple MTAs for a single nod	e	
MTA Weights affect the routing algorit lower weighted MTAs are preferred. MTA weight 5	hm: if multiple MTAs are present in a node,	
Channel Information		
	remote MTA using more than one channel, by adding it to the table with a lower weight	
AE title	Weight	🕂 Add
		X Remove
		🖉 Edit
		<b>C</b> 1
	ОК	Cancel

Figure 36: Edit MTA Info

Back in the main MConsole screen (Figure 37), click on [Apply].

File       Window       Messaging       Operations       Help <ul> <li>Welcome to Message Console</li> <li>Switch Configuration Management</li> <li>Main Address Conversion Table</li> <li></li></ul>
✓ Main Address Conversion Tables         ✓ Main Address Conversion Table         ✓ Main Routing Tree
<ul> <li>Main Address Conversion Table</li> <li>Main Rudting Trees</li> <li>Resting Trees&lt;</li></ul>
Wildcard synonym     Image: Cancel       Wildcard synonym     Image: Cancel

Figure 37: Apple MTA Info

You now need to check the Routing, so select "Check Address Routing" from the Messaging menu in MConsole (Figure 38).

MConsole (Switch Configuration Management): messaging.admin@headquarters.net					
<u>File Window View</u>	<u>M</u> essaging	Operations <u>H</u> elp			
😨 Welcome to Messag	MHSIN	lanagement		>	nt 🐹
🗸 📄 Address Conve	Create	MTA Links			
nain Addre	Summ	ary			
V 🔁 Routing Trees	Upgrad	le Messaging Configurat	ion		
✓ → Main Routi > ₩ C=GB	Check	Address Routing			iroup
v P net	Backup	Messaging Configuration	on		FIELD (SMTP), MTA weight : 5
🕝 field	System	Check			
🗸 📄 Message Trans	-				
> 🔄 HEADQUAR					
V 🔁 External Messa		gents			Subbas lafamatian OAU shildan assaut
✓ I FIELD (SMT) ✓ Channe					Subtree Information: O All children present
a channe					
🔄 X.400 Message				Routi	ing Nexus
🗸 📄 Internet Messa	ge Stores				-
🔒 HEADQUAR	RTERS				×

Figure 38: Check Address Routing

In the **Test email address routing screen** (Figure 39), enter an Internet address for the remote domain and click [**Check Address**]. This should respond with the hostname or IP Address you entered for your Remote SMTP Server.

Check Routing	3		×
Test email ad	dress routing		
Click on the 'Che	ck Address' to start the test		
Basic Advance	ced		
Switch: HEAD	QUARTERS 🗸		
Address To:	user.one@field.net	Edit	Swap Addresses
Address From:		Edit	Include From Address
delivered-mta delivered-cha channel-weig	nnel: smtp-external		
<			>
Check Addres	s Clear		
			<u>C</u> lose

Figure 39: Test email address routing

#### Additional Configuration (Scenario 3 Only)

Following the instructions in Images 35-37, create a 2nd External MTA in the same way as you created the original "FIELD (SMTP)" MTA.

Call this new MTA "FIELD2 (SMTP)". Note that we have used 10.178.0.12 as the IP Address and that "FIELD (SMTP)" was 10.178.0.11.

🛅 Create a new M	ΓΑ	_		×
MTA Naming				
An External Interne Messaging Config	t MTA can be given an arbitrary name in your uration			
The local name for	the external MTA in this configuration			
Directory Name	IELD2 (SMTP)			
also possible to sp	or host name to which messages queued to this N ecify an IP address, but that will require the use o g set to communicate with this MTA			
Destination 10.17	8.0.12			
Optional local des	cription for the new MTA			
Description				
	< <u>B</u> ack <u>N</u> ext >	<u>F</u> inish	Cance	2

Figure 40: MTA 2 Naming

Click on [**Finish**] to commit this change and then select the External Internet Domain (field.net in the example) from the "Main Routing Tree" (Figure 41) and select [**Add**] next to the MTA Group.

MConsole (Switch Configuration Management): messagir	ng.admin@headquarters.net	-		×
File Window View Messaging Operations Help				
Welcome to Message Console Switch Configuration	on Management 33			
✓ Gain Address Conversion Tables	MTA Info MTA Group	Add		^
	Subtree Information: 〇 All children present   Not all children present	Remo Edit		
	Routing Nexus			
IEADQUARTERS ✓ Source ACP127 S5066 Access Points	Domain Synonyms			
HEADQUARTERS:1     GIT P S506 Access Points     HEADQUARTERS:1     HEADQUARTERS:1     FS056 Access Points	Non-wildcard synonym Wildcard synonym			~
		Ap	ply C	Cancel
				Help

Figure 41: Add MTA Group

Select Your Local MTA (HEADQUARTERS in this example) from the "Select the MTA that is going to handle this node" drop down (Figure 42) and click [**OK**].

🕑 Edit MTA Info	×				
By editing the MTA information for this routing tree node, you can set the routing for the selected O/R hierarchy					
Routing for this node					
Select the MTA that is going handle th	is node				
cn=HEADQUARTERS					
Dealing with multiple MTAs for a single node         MTA Weights affect the routing algorithm: if multiple MTAs are present in a node, lower weighted MTAs are preferred.         MTA weight 5         Channel Information         In case that it's possible to contact the remote MTA using more than one channel, you can select the first one to be used by adding it to the table with a lower weight					
AE title Weight Add X Remove Edit					
OK Cancel					

Figure 42: Edit MTA2 Info

Back in the main MConsole screen (Figure 43), click on [Apply].

MConsole (Switch Configuration Management): messaging.admin@headquarters.net     Image: Provide the stage of the stag				×
Welcome to Message Console Switch Configuration	n Management 🙁 🛛 🚾 Switch Operations 🛛 📒 Internet Mailbox Management			
Welcome to Message Console	MTA Info  MTA Group  HEADQUARTERS, MTA weight : 5  Subtree Information:  All children present  Not all children present  Domain Synonyms  Non-wildcard synonym  Wildcard synonym	Add Remon Edit	/e	
✓ Channels		Арр	_	Cancel

Figure 43: Apply MTA2 Info

Now select the Internet Mailbox Management view (Figure 44) and click on [Add Routed UA].

MConsole (Internet Mailbox Management): m	essaging.admin@headquarters	.net	-		$\times$
<u>File Window View H</u> elp					
👿 Welcome to Message Console 🛛 🖂 Switch	Configuration Management	Switch Operations	📗 Internet Mailbox Manager	ment 🕅	
Add M-Box User Add Redirection User Add Dist M-Box Users Person Gene Mailbox only SMTP Redirection Entries Person Role Mailbox only SMTP Redirection Entries Person Role Mailbox only SMTP Redirection Entries Person Role Mailbox only SMTP Redirection Entries Role Mailbox only SMTP Redirection Entries Role Mailbox only SMTP Redirection Entries Role Mailbox only SMTP Redirection Entries Role	Image: With the second seco		Ар		ancel

Figure 44: Internet Mailbox Management View

In the **Internet Address and domain** screen (Figure 45), enter the Address for an Internet User at the "FIELD (SMTP)" Server and the IP Address (or hostname) for the "Mail ..".

Email	user.one	@	field.net		`
_	ery Information efault (normally LMTP for local delivery)				
	ail host (implies SMTP channel)	10	.178.0.11		
O N	exus		~		
00	ther channel	ac	p127		

Figure 45: Add Routed UA

Click [Finish] and ignore the "Missing Entry in DSA" warning.

You now need to check the Routing, so expand the "Routed UA" tree, right-click on *user.one@field.net* and select "Check Routing" (Figure 46).

MConsole (Internet Mailbox Management): mes	saging.admin@headguarters.net	_		×
File Window View Help	- , · , , , ,			
	onfiguration Management 🛛 🔯 Switch Operations 🖉 Internet Mailbox	x Managem	ent 🕅	
Add M-Box User Add Redirection User Add Distri	2 1	,		
✓ Image: Version →	Mailbox Redirection MIXER ACP127 Capabilities Advanced			
V 🕝 headquarters.net	Email addresses			
User.one@headquarters.net This is the list of email addresses which will be routed to this mailbox user.two@headquarters.net				
🛅 Role	Email addresses of mailbox user.one@field.net		+	
Mailbox only				
Person	Routing Information			
C Default (LMTP)				
📴 Internet List Entries	Mail host (SMTP) 10.178.0.11			
🚞 File Transfer By Email Entries				
✓  ☐ Routed UA ✓  ☐ field.net	○ Nexus			
✓ I field.net A user one@field.net			-	
Remove	:her channel		+	
Copy Address				
Copy DN				
Check Routing				
		App	ly Ca	ncel
				Help

Figure 46: Check Routing for a User

In the Test email address routing screen (Figure 47) click on [Check Address].

You will see that the "delivered-mta" value in the results has the IP Address value that was assigned to "FIELD (SMTP)".

Check Routing	3	×
Test email ad	dress routing	
Click on the 'Che	ck Address' to start the test	
Basic Advan	ed	
Switch: HEAD	QUARTERS ~	
Address To:	user.one@field.net	Edit Swap Addresses
Address From:		Edit Include From Address
		_
delivered-mta	nnel: smtp-external	~
Check Addres	s Clear	
		<u>C</u> lose

Figure 47: Check Address Routing

Click [Close].

You can repeat this process for an Internet Address on the "FIELD2 (SMTP)" server.

Go back to the Internet Mailbox Management view and click [Add Routed UA].

In the **Internet Address and domain** screen (Figure 48), enter the Address for another Internet User, this time using the IP Address (or hostname) for the "FIELD2 (SMTP)" server.

🔯 Add Routed UA		_		×
Internet Address and domain				
Confirm the Routed UA email address.				
Email user.two	@ field.net			~
Delivery Information				
O Default (normally LMTP for local delivery)				
Mail host (implies SMTP channel)	10.178.0.12			
○ Nexus	$\sim$			
○ Other channel	acp127			$\sim$
	<u> </u>		Cance	el

Figure 48: User Two - Internet Address and domain

Click [Finish] and then check the routing as before (Figure 49).

Check Routing	×
Test email address routing	
Click on the 'Check Address' to start the test	
Basic Advanced	
Switch: HEADQUARTERS ~	
Address To: user.two@field.net	Edit Swap Addresses
Address From:	Edit Include From Address
rfc822address: user.two@field.net delivered-mta: 10.178.0.12 delivered-channel: smtp-external channel-weight: 0	
Check Address Clear	
	<u>C</u> lose

Figure 49: Check Address Routing

This time you will see that the "delivered-mta" value in the results has the IP Address value that was assigned to "FIELD2 (SMTP)".

#### Testing External Connections using the Harrier Web Email Client

You can also test the connection by sending an email to the remote user. Provided that you have configured your hosts properly as explained in this guide, you will be able to send email messages to remote users using Isode's Harrier Email Client. For instructions on sending and receiving email messages using Isode Harrier, refer to the Harrier Evaluation Guide.

#### What Next?

More information on M-Switch SMTP, which can be deployed as a gateway/backbone or as an MTA to support local users, can be found on the Isode website at *www.isode.com/products/m-switch-smtp.html*.

Information on the other Isode products used in this evaluation can also be found at:

- M-Box: www.isode.com/products/m-box.html
- Harrier: www.isode.com/products/harrier.html

Detailed configuration and operational information on all variations of M-Switch can be found in the three Administration Guides available for this product.

- 1. M-Switch Admin Guide
- 2. M-Switch Advanced Admin Guide
- 3. M-Switch Operators Guide

All of these documents, together with Admin Guides for all other Isode products can be found on the Isode website at *www.isode.com/support/help.html*.

#### Other Evaluations

This guide is one of four relating to Isode's email messaging products:

- Setting up an SMTP Email System (this guide)
- Setting up an X.400 Email System
- Setting up an SMTP/X.400 MIXER Gateway
- Email for Constrained Network Environments
- Harrier Evaluation Guide

Information on all of these evaluations can be found at *www.isode.com/evaluate/evaluate-email.html*. For email evaluations outside of the scope of these guides, please contact us.

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