

### Setting up an X.400 Email System

Using Isode's M-Switch X.400 (MTA), M-Store (message store) and Xuxa (X.400 test email client) products to set up an X.400 email system for local message exchange and connection to external X.400 systems.

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### Introduction

This guide details the process for creating an X.400 based messaging systems using Isode's M-Switch X.400 and M-Store products. You'll test the system using Isode's Xuxa test/demo user agent. 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)
- Harrier Web (web based email client)

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 X.400 server with the message configuration held in a Directory Server (Isode's M-Vault LDAP Directory)
- 2. Created two X.400 users/mailboxes in an M-Store message store
- 3. Exchanged messages between these two users with the Xuxa test/demo user agent
- 4. Created a connection to an external X.400 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 address space "/P=Local/A=Field/C=GB/" to refer to the system being created here and "/P=Local/A=Headquarters/C=GB/" to refer to the external X.400 server required for steps 4 and 5. For ""/P=Local/A=Headquarters/C=GB/" 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.



For the purposes of this evaluation we have assumed this is a "clean" installation of M-Switch X.400 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 8, Windows 8.1 and 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 Directory evaluation page (*www.isode.com/evaluate/evaluate-email.html*). The downloads page will give installation instructions specific to your platform.

### **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 X.400 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 X.400 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. 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 passphrase					
Please enter a Prof and means that yo run Sodium, M-Va	ile 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				

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

In the **Welcome to Message Console** screen (Image 2) select the "Create a new DSA and Messaging Configuration" option, click **[OK]** and then provide an Initial Directory User Name (Image 3). This can be any name, this guide uses "Messaging Admin".





Image 2.	Chases	tha	Initial	Directory	Hear's Nama	
imaae 3:	cnoose	tne	initiai	DIrectory	User's Name	

	Choose the Initial Directory User's Name
Choose	the Initial Directory User's Name
You must p configuration monitoring Configuration	rovide the name of the person who will be set up as the initial manager of the Directory and MTA on, and will also be able to connect to the Queue Manager via SOM for management and purposes. You will be able to add extra managers with more restricted rights once the Messaging on has been set up.
User name	Messaging Admin
	OK Cancel

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=Field". Click [Next].

Imaae	<u>4</u> .	דוח	Structure	Configuration
mage	<b></b>		Juduluic	conjugaration

	Create Directory Server	_ 🗆 🗙
DIT structure confi	guration	
Adjust the DNs provid	ed by the template to suit your requirements	
Base DN		
o=Field		
Initial Directory User: 1 bind as this user Afte	his user is put into all the initial groups, and the bir	nd profile created will
which roles. You shou	Id change the common name to a suitable value fo	r a real person.
cn=Messaging Admi	n, cn=Users, o=Field	
	< Back Next > Finish	Cancel

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

Image 5: Password Configuration

	Create Directory Server
Password co	nfiguration
Passwords are a	uto-generated, but can be modified here if required
Initial Directory	User: cn=Messaging Admin,cn=Users,o=Headquarters
Password: se	cret 🗹 Show
	Copy password to clipboard Save password to file
Record user a	authentication times (authTimestamps)
Password Has	hing
Hashed passw mechanisms o	ords are more secure, but are not compatible with password-based SASL ther than PLAIN, LOGIN and SCRAM-SHA-1.
Note that whil passwords are	e non-hashed passwords may be recovered from the DSA database, hashed NOT recoverable.
Hash all pa	sswords using SCRAM-SHA-1
	< Back Next > Finish Cancel

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 6) and the DSA will be created and started.

Image 6: Confirm Details

	Create Directory Server	
Confirm Details Check the details below	before creating the DSA	
DSA creation template: Simple DSA setup fo DSA address: Host FIELD, X.500 on	r Messaging Evaluations port 19999, LDAP on port 19389	^
DSA name: cn=dsa,o=Field Bind profile name: cn=dsa.o=Field / Me	essaging Admin	
Password hashing: None		v
	< Back Next > Finish	Cancel

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

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

Highlight the "o=Field" entry, click [**Next**] and then select "X.400 MTA (M-Switch X.400)" when prompted for a messaging configuration type.

Image 7: Create a new MHS Configuration

Create a new MHS configuration
Set the Messaging Configuration Base DN
Select the entry under which a Messaging Configuration entry will be created
▶ o=Field
If you provide an organization name, an entry for the organization name provided will be created automatically under the entry you select.
Messaging configuration name
Base DN: o=Field MHS DN: cn=Messaging Configuration,o=Field
< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel

Image 8: Select Me	essaging Config	uration Type			
	Create a n	ew MHS configu	uration	_ [	2 X
Messaging Confi	guration Type				
Select the type of me	essaging configuration	on you want to crea	te.		
Please select the Me NB: Once the MHS s	ssage Handling Syste ystem is created you	em (MHS) Type. I cannot convert fro	m one type to anot	her.	
SMTP (M-Switch SN	(TP)				
O Create a system v	which can process Int	ternet email only.			
X.400 MTA (M-Swite	h X.400)				
Create a system v	vhich can handle X.4	00 email only.			
X.400 and SMTP (M-	Switch MIXER)				
<ul> <li>Create a system v</li> </ul>	vhich can handle bot	th X.400 and Interne	et email.		
	< <u>B</u> ack	<u>N</u> ext >	<u>F</u> inish	Car	ncel

Click [**Next**] and MConsole will prompt for a Market Segment choice (choose General Purpose), in the next two screens accept the defaults for the **Hostname** (Image 9) and **Administrator authentication details** (Image 10) clicking [**Next**] through both of these screens.

Image 9: Hostname

	Create a n	new MHS o	configurat	ion		- 🗖	x
Hostname							
The hostname will be us addresses	ed, among othe	r things, to s	et the netwo	ork			
Enter the fully qualified h For example, mail.isode.c	ost name of the om. If not possi	machine tha ble, then use	at will be rur the host na	nning this s ime.	erver.		
FIELD							
	< <u>B</u> ack	Next	>	<u>F</u> inish		Cancel	

Image 10: Admir	istrator Authentication Details					
	Create a new MHS configuration					
Administrator a	uthentication details					
Configure the auth of MTAs within th	nentication information to be used by administrators is configuration					
This information w the Switch Operation the Event Viewer.	This information will be needed to connect to the QMGR with authentication, and will be used by the Switch Operations View, Switch Configuration view (for Outbound Connection Testing) and the Event Viewer.					
Admin Users Pare	ent DN					
The locatio	n beneath which new Admin Users will be created					
Parent DN	cn=Users,o=Field Pick					
Use existing SASL Id						
user name	messaging.admin@FIELD Select					
○ Create new SASL Id						
Admin user	name mtaAdmin @ sasI.FIELD					
Admin pa:	isword Show					
	< <u>Back</u> <u>Next</u> <u>Finish</u> Cancel					

In the **X.400 Configuration** screen (Image 11), enter your Local X.400 Address Space (in this guide we are using /P=Local/A=Field/C=GB/).

You will also want to create an X.400 Message Store (M-Store) so tick the "Create and X.400 Message Store for local P7 users" radio button before clicking on [**Next**].

Image 11: X.400 Configuration

Create a new MHS configuration
X.400 configuration
Enter the O/R Address prefix to be the local O/R Address space for this MTA
X.400 Address Prefix
ISO 3166 Country Code GB United Kingdom 🔠
Single Space ADMD Field
Organization
OU1 OU2
OU3 OU4
<ul> <li>Create an X.400 Message Store for local P7 users</li> <li>Create a legacy X.400 Message Store</li> <li>Do not create an X.400 Message Store</li> </ul>
< <u>B</u> ack <u>N</u> ext > <u>F</u> inish Cancel

Accept the defaults on the Service File Creation screen and then click [Finish].

Image	12:	Service	File	Creation

Create a new MHS configuration		I X
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	E	rowse
M-Store-X400 uses the pumicetailor file to store its configuration.		
Create pumicetailor 🗹 C:\lsode\etc\pumicetailor.xml	E	rowse
< Back     Next >     Einish	Can	cel

In the Create Isode Services screen, ensure that M-Switch and M-Store services are selected (Image 13) and then click [**Finish**] to be dropped back into the main MConsole screen.

Image 13: Create Isode Serv	lices	
	Create Isode Services	_ <b>D</b> X
Create Isode Services Select the services from the servi	ice groups that you want to create	
M-Vault M-Switch M-Log M-Store Audit Database Tomcat	M-Vault	
	Finish	Cancel

### 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 14, you can close the service configuration GUI.

Image	14: S	ervice	Configuration
-------	-------	--------	---------------

	Service Config	uration			×		
Service Configuration Operations View Help Isode Services							
Add Refresh All Refresh All Refresh	Start      Start Tree Stop      General Recovery Advanced     Service Name Isode M-Store X.400 S     Service Status Stopped     Start Type Automatic      License Status	Remove					
	Product	Latest Version	Expiration	Valid			
	M-Store-X400	17.0	24-Sep-2018	VES			
	HGE-TLS	Not Licensed	N/A	<b>NO</b>			
< III >				Apply C	ancel		
Abort							

On Linux execute the following commands:

# /etc/init.d/pp start

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

Image 15: Modify Message Switch

	g	
	MConsole (Switch Operations): messaging.adr	nin@FIELD 📃 🗖 🗙
File Window View Swite	ch Channels Peer MTA Message Recipient Services	Help
Refresh La Kefresh All	Refresh every 60 seconds Hide empty channels	
🥮 FIELD - not conn	Refresh Switch	
	Edit Switch Configuration	NNECTED
<b>*</b>	Add	
	Modify	
9	Remove	

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

Imaae	16.	Fdit	Message	Switch
muye	10.	Luit	wiessuge	SWILLII

	Edit Message Switch	X
Friendly Name	FIELD	
Host	FIELD	
Userid	messaging.admin@FIELD	
Password ••	•••• Sho	w
Authenticatio	n Mechanism DIGEST-MD5	<b>v</b>
MTA ACP	127 Monitoring ACP127 OTAM	
Port Ove No services [ Host Aliase thest Aliase the same M - the hostn - when clus	rride port s s s are used to correlate MTA names when a host name or IP changes and ITA is known to the Audit DB by different names. This can happen when: ame or IP of a system hosting the MTA has changed tering is in use, and the MTA has failed over/back	
	Add Remove	
	OK Cancel	

Back in the main MConsole screen, right-click on the MTA again and select "Connect".

MConsole	e (Switch Operations): messaging.admin@FIELD	- 🗆 X
File Window View Switch Channels F Welcome to Message Console	Peer MTA Message Recipient Services Help tch Configuration Management C Switch Operations S	
Ketresh La Retresh All     Ketresh ever	Report Properties Services	
	MESSAGE SWITCH	<u>^</u>
	* Hostname: FIELD * QMGR status: Up * Running since: 2018-07-10 10:54:53 (Local time) * Running since: 2018-07-10 10:54:53 (Urta time) * Time running: 5 minutes, 46 seconds * OS type: windows * Queue filesystem free space: 75% * Archive filesystem free space: 75% * Logging filesytem free space: 75% * Logging filesytem free space: 75% * Last management operation: rereadQueue * Time of last management operation: 2018-07-10 10:54:55 MESSAGE STATUS	Ξ
	* Total volume: 0 KB * Total messages: 0 * Held messages: 0 <	×
		🕑 Help

Image 17: MTA Connected

### Create X.400 Mailboxes

In MConsole, select "View > Configuration > X.400 Mailbox Management" and Expand the "Main Routing Tree" to your X.400 Address Space (/P=Local/A=Field/C=GB/). Then click on the Add P7 Mailbox button.

Image 18: Add P7 Mailbox		
MConsole (X.40	00 Mailbox Management): messaging.admin@F	FIELD – 🗖 🗙
File Window View Help	n Configuration Ma 🛛 📧 Switch Operations 🖉 🚺 🗡	(.400 Mailbox Managemen 🕱
add P7 Mailbox Add P3 User Agent Add X.40	Constribution List Add X.400 Redirect Add using Terr	plate 👗 🔎 🔎
<ul> <li>∠ Control Contro</li></ul>	Routing Tree Node These routing tree nodes can be added or remov	ed using the Switch Config Manz
		Apply Cancel
		🥑 Help

In the screens that follow:

- Choose the Address Form of "Personal Name" (Image 19)
- Insert a Surname and Given Name (Image 20)
- Confirm the O/R address (Image 21)
- Ensure that a new White Pages entry is created for the User (Image 22)

Image 19: Choose Address Form

Add P7 Mailbox using Personal Name Naming	-		x
Address Form Choose the address form to use for this node			
Address form			
Personal Name			
🔿 Common Name			
<ul> <li>Organizational Unit</li> </ul>			
O AMHS (Aviation) CAAS Addressing			
O AMHS (Aviation) XF Addressing			
○ Other			
< Back Next > Finish	C	ancel	

Image 20: Set Surname and Given Name				
A	ldd P7 Mailbox using Personal Name Naming 🛛 💻 💌			
Node name (Pers	sonal Name Addressing)			
Enter the Personal N	ame for this node			
Surname	One			
Given name	User			
Initials				
Generation Qualifier				
	< Back Next > Finish Cancel			

#### Image 21: Confirm O/R Address

	Add P7 Mailbox using Personal Name Naming
O/R Addres	ss chosen O/R Address for this node
O/R Address	/G=User/S=One/PRMD=Local/ADMD=Field/C=GB/
	< Back Next > Finish Cancel

#### Image 22: Create a new White Pages Entry

	🛾 🔹 Add P7 Mailbox using Personal Name Naming 📃 🗖 🗙				
White Pages (A	Address Book) Entry				
Configure a White	Pages entry for this address				
○ Do not set up a	White Pages entry				
Create new Whit	te Pages entry				
Directory Root					
Select when	e in the DIT the White Pages entry will be created				
Directory	cn=White Pages,o=Field Pick				
Common Name	User One				
Initials					
Surname	One				
Given name	User				
○ Amend existing	O Amend existing White Pages entry				
Directory Entry					
Select the e	Select the existing Directory entry to amend				
Directory Er	Directory Entry cn=White Pages,o=Field Pick				
Advanced White Pa Management	ages values can be set within the White Pages tab in X.400 Mailbox				
	< Back Next > Finish Cancel				

#### You should additionally:

• Confirm the MTA and Message Store Details (Image 23)

• Set passwords for P7 Message Store and P3 Access (Image 24)

Image 23: Confirm MTA and Message Store Details
Add P7 Mailbox using Personal Name Naming
MTA and Message Store Details
Configure which Message Store, MTA and delivery channel this user will use
Message Store
cn=Main Message Store, cn=Messaging Configuration, o=Field 💙
Supporting MTA
cn=FIELD, cn=Messaging Configuration, o=Field 💙
P3 Delivery Channel
p3deliver 💙
< Back Next > Finish Cancel

#### Image 24: Set Password

	Add P7 Mailbox using Personal Name Naming	_ <b>D</b> X
Passwords Set the User's P7 an	nd P3 passwords	
P7 Message Store F P3 Access Passwor	Password secret	Hide
	< Back Next > Finish	Cancel

Click on [**Finish**] and then repeat this process for an "user.two". After adding both users, MConsole should display them as in Image 25.

Image 25: Users Added

MConsole (X.40	00 Mailbox Management): messaging.admin@FIELD
File Window View Help Welcome to Message Cons	n Configuration Ma 🛛 🕼 Switch Operations 🛛 📳 X.400 Mailbox Managemen 🕺
Add P7 Mailbox Add P3 User Agent Add X.4	2 Carl Carl Carl Carl Carl Carl Carl Carl
⊿ ⊇ Routing Trees ⊿ <ul> <li>Main Routing Tree</li> </ul>	Message Store Routed UA Synonyms, Aliases and Redirects White Pages
∠ C=GB ∠ C=GB ∠ C=GB ∠ C=GB ∠ C=GB	P7 Message Store Password Enter value to reset password Show
⊿ PRMD=Local S G=User+S=One	P3 Access Password Enter value to reset password Show =
User Templates	Mailbox Name Two0
	Keep a copy of submitted messages O Yes      O Default O No
	Alternate Sending Addresses
	ORAddress v
	Apply Cancel
	() Help

### Testing with the Xuxa Demonstration User Agent

We're now going to use the Xuxa demonstration user agent (installed earlier with M-Switch) to test local messaging between the two users.

Xuxa can only be connected to one account at a time, but can have several accounts configured, and one of them is always the default account.

We're going to log on as User One, making that the default account. We'll then configure a second account, User Two, before exchanging messages between the two accounts to test the X.400 MTA.

To start Xuxa on Windows, locate the Xuxa program icon. On Linux execute the following command:

% /opt/isode/bin/xuxa

After the introductory splash screen, in the White Pages Browser (Image 26) select User One, click [**OK**].

Image 26: White Pages Browser

M	White Pages Browser			
s	elec	t an	exi	sting user in the Directory, to use its O/R address to create an account
	⊿		<۷	Vorld>
		⊿		o=Field
				cn=Address Book
			⊳	cn=Groups
			⊳	cn=Messaging Configuration
			⊳	cn=Users
			⊿	cn=White Pages
				🤶 cn=User One
				💈 cn=User Two
	Sele	ctio	<b>.</b> [	cn-Liter One cn-White Pager o-Field
	Jele	cuo		ch=oser one, ch=white Pages, o=heid
				OK Cancel

now enter the password set in the previous section and click **[OK]** again to log in to Xuxa as this user. You'll be dropped into the main Xuxa GUI (Image 27) showing that you have successfully connected to the User One mailbox.

Image 27: Connected as User One

	XUXA (X.400 Mail User Agent) - /G=User/S=O	ne/PRMD=Local/ADMD=Field/C	=GB/	- 🗆 X
File Message View He	łp			
Get Mail Write	Reply Reply All Forward Addr.Book			
🧭 Mailboxes 📃 🗆	P From	Subject	Received Size	Sec
🧐 Inbox				
Outbox				
Reports				
😨 Trash				
	4			
	Log			
	From:		Message Security:	
			Not Signed	
			No Security Labe	
	Subject:		Bodynarts:	
	Priority: Normal		bouyparta	
	X.400 MTS Parameters			
				^
				×
	Serve	er status  🔬 🔛		

We're now going to configure the User Two account. Select "File > Preferences" from the Xuxa menu, highlight the Xuxa Accounts option and click on [**Copy**] to configure a new account using User One as a template.

Image 28: Configuring User Two

	Preferences	
type filter text	Xuxa Accounts	⇔ • ⇔ • •
Xuxa Accounts Xuxa General	User One Make Default  User One  Default Account  Im  New Account Editor  Type the new account name User Two  OK  Cancel	references
	Restore	Defaults Apply
	Ok	Cancel

When prompted give the new account a name of "User Two" and click **[OK]**. In the **Preferences** screen (**P7 Message Store**), as shown in Image 29, make the following changes:

- Change the **Message Store User** (**O**/**R**) field value to match that of User Two (/*G*=*User*/*S*=*Two*/*PRMD*=*Local*/*ADMD*=*Field*/*C*=*GB*/)
- Change the **Message Store User Password** field value to match the password you set for User Two
- Change the **Message Store User DN** field to match that of User Two (*cn=User Two*, *cn=White Pages*, *o=Field*)

Click [Apply], then [Bind to the Message Store], then [OK].

Image 29: User Two Preferences

	Prefere	nces	_ <b>D</b> X
type filter text	P7 Message Store		<b>⇔</b> • ⇔ • •
Xuxa Accounts Bodyparts DSA and Address Book General P3 Submission P7 Message Store Reports Security Xuxa General	Connection Information Message Store Presentation Address Message Store User (O/R) Message Store User Password Message Store User DN	"3001"/URI+0000+URL+itot://FIELD:3001 //G=User/S=Two/PRMD=Local/ADMD=Field/C=G secret cn=User Two\cn=White Pages,o=Field Bind to the Message Store	B/ Edit Pick
	Check for messages at startup Disable configuration requests in b Use a new connection for each me Use a new MS connection for Get N ✓ Don't confirm message deletion ✓ Register an autoalert for new mess Pop up an alert window when an a	ind operations ssage submission Aail ages utoalert is received scheck pagiod (balow)	
	Check period (in seconds)		
	The messages will be fetched • at startup time • on demand		
	Maximum mailbox size 100	Restore Defaults	Apply
		ОК	Cancel

You'll be dropped again, into the main Xuxa GUI this time showing that you have successfully connected to the User Two mailbox.

### Sending a Test Message between Users

Now that both User accounts have been configured within Xuxa, you can send a test message, in this case from User Two to User One. Click on [Write] to bring up a new message screen (Image 30).

-	New Marrie	
5	New Messa	
ile Help		
Send Attach		
From: /G=User/	/S=Two/PRMD=Local/ADMD=Field/C=GB/	Message Security:
		Don't sign message 🗸 🗸
8		No Security Label
		Priority:
		Priority: Normal V
Subject:		Bodyparts:
🖲 – X.400 MTS Pa	rameters	
Test Two		
		~

Now click on the Address Book icon (below "From" in Image 30), select User One from the list

available addresses and click on [To] to add that address to the list of recipients.

Image 31: Selecting a Recipient from the Address Book

	Address	Book	
The World 🗸		Not bound Edit with SODIUM	
		/G-User/S-One/PRMD-Lo	cal/ADM
<pre>   /G=User/S=C   /G=User/S=T </pre>	Dne/PRMD=Local/ADMD=Field/C=GB/ wo/PRMD=Local/ADMD=Field/C=GB/	To: ->	
		< 111	>
		CC: ->	
		BCC: ->	
		Alt Recipient: ->	
Attribute	Value		1
DN	cn=User One, cn=White Pages, o=Field		
O/R Address	/G=User/S=One/PRMD=Local/ADMD=F	eld/C=GB/	

Click on **[OK]** to return to the message composition screen and add a Title and Message Content (Image 32) before clicking **[Send]**.

Imaae	32.	Com	nosina	n	New	Messaae	- 2
muge	52.	com	posing	u	IVC VV	wicssuge	~

12	Test from User Two to User On	e	_ <b>_</b> X
File Help	Attach		
From:	/G=User/S=Two/PRMD=Local/ADMD=Field/C=GB/	*	Message Security:
<b></b>	TO: /G=User/S=One/PRMD=Local/ADMD=Field/C=GB/ Per Recip		🥒 Don't sign message 🗸 🗸
			No Security Label
			Priority:
			Priority: Normal V
Subject:	Test from User Two to User One		Bodyparts:
⊕ _X.4	00 MTS Parameters		
Test Tv	vo		^

If you now click [Get Mail] in the User Two mailbox screen (Image 33), you'll see that a Delivery Report has been generated for User Two, confirming that the message has been successfully delivered to User One.

Image 33: Delivery Report

	XUXA (X.400 Mail User Agent) - /G=User	/S=Two/PRMD=Local/ADMD=Field/	C=GB/	_ <b>D</b> X	
File Message View He	p				
Get Mail Write -	Reply Reply All Forward Addr. Book	•			
🥔 Mailboxes 📃 🗆	P From	Subject	Received Size	Sec	
Inbox         Inbox         Outbox         Sent         Reports         Trash	SYSTEM>		1 Kb		
	<	ш		>	
	🔀 Preview 🔍 Log				
	From: <system></system>		Message Security:		
	TO : /G=User/S=One/PRMD=Local/ADMD=Field/C=GB/		Not Signed		
	No Security Label				
	Subject:				
	Date: Bodyparts:				
	Priority: No Priority				
	* X.400 MTS Parameters				
	Delivery Report for your message with Subject Identifier: [/PRMD=Local/ADMD=Field/C=GB/;FIELD.0288001-180710.143438] It was successfully sent to: /G=User/S=One/PRMD=Local/ADMD=Field/C=GB/ Message Delivery Time: 180710153442+0100				
A new message has arrived		Server status 🔬 😫			

You can switch back to viewing the User One mailbox (File > Preferences, then select User One and click [**Apply**]) to view the received message from the perspective of the User One account.

### Connect to an External X.400 System

You have successfully set up an X.400 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 X.400 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.

### **Create Remote User White Pages Entry using Sodium**

Xuxa does not support the "Free Typing" of recipient addresses, so in order to prepare Xuxa for sending messages to Remote User(s) you will need to add "White Pages" entries, for those users, using the Isode Directory Data entry tool "Sodium".

To start Sodium on Windows locate the Sodium program Icon and select it.

To start Sodium on Linux run the following command

# /opt/isode/bin/sodium

When Sodium starts you'll be required to enter your Profile passphrase (which is the same as you used for MConsole) and then click [**Connect**] in the **Bind Profile Management** screen.

In the main Sodium interface, expand the Directory Information Tree (DIT) until you find the existing white pages entries for your two existing users. The right-click on "cn=White Pages" and select "add Below" (Image 34).

<b>16</b>	cn=dsa,o=Field / Messaging Admin - Sodium	_ <b>D</b> X
Session Edit Operations X.509 View Help		
Browse: White Pages 🛛		
🔒 🌇 "cn=dsa,o=Field / Messaging Admin": LDAP bind t	'FIELD' on port 19389	Template view 🖌 💕
🔺 🥥 World	Container Owner Address	
b cn=config		
⊿ → 0=Field	Name White Pages	+
cn=Groups	Description	
cn=Messaging Configuration		
cn=Users	See Also	Pick +
A cn=Use Browse		
6 cn=Use Search		
Compare		
Copy DN		
Rename		
Add below		
Delete		
Refresh		
Pulktools		
Buik tools		
	Add another Object classes	Apply Cancel
Abort Viewing: cn=White Pages,o=Field		

Image 34: Adding White Pages Entries

In the **Select template to add** screen, choose "Person" and click [Next].

In the **Select optional parts** screen, tick "X.400 Messaging" and click [Next].

In the Enter RDN screen (Image 35), enter a description for this user before clicking [Finish].

#### Image 35: Enter RDN of new entry

16	Add entry under: cn=White Pages,o=Field	_ <b>D</b> X
Enter RDN Enter the RDN v	alue for the new entry	
Full Name	User One Headquarters	
	< Back Next > Finish	Cancel

Back in the main Sodium GUI, enter a surname for this new entry ("Headquarters" has been used in Image 36) and then in the **Messaging Tab**, (Image 33) click on [**Edit**] next to the OR Address field (Image 37).

Image 36: Add Surname

tan an a	cn=dsa,o=Field / Messaging Admin - Sodium	_ <b>_</b> ×
Session Edit Operations X.509 View Help		
🚖 Browse: White Pages 🛛		
🔝 瞻 "cn=dsa,o=Field / Messaging Admin": LDAP bind t	'FIELD' on port 19389	Template view 🗸 💕
🔺 🍚 World	Personal Group Contact Other 🔺 Messaging	
▷ Cn=config		
🔺 💑 o=Field	Full Name User One Headquarters	+
cn=Address Book		
Cn=Groups	Surname Headquarters	
cn=Messaging Configuration		
cn=Users	User Password	
∠		
and the set of the	Password < No value available >	Set +
the oser two		

Image 37: Messaging

16	cn=dsa,o=Field / Messaging Admin - Sodium	_ <b>_</b> ×
Session Edit Operations X.509 View Help		
🖕 Browse: White Pages 😒		
🔒 🎨 "cn=dsa,o=Field / Messaging Admin": LDAP bind	to 'FIELD' on port 19389	Template view 🗸 💕
⊿ 🌚 World	Personal Group Contact Other 🔺 Messaging	
<ul> <li>Cn=config</li> <li>So=Field</li> <li>Cn=Address Book</li> </ul>	OR Addresses 🔺	Edit +
cn=Groups	Maximum Content Length	
<ul> <li>cn=Messaging Configuration</li> <li>cn=Users</li> <li>cn=White Pages</li> </ul>	Message Store DN	Pick +
🔒 cn=User One 🔒 cn=User Two	Deliverable Content Types	+
	Acceptable EITs	•
	Exclusively Acceptable EITs	+
	Unacceptable EITs	•
	O/R Addresses with Capabilities	View Save Delete +

In the **O/R Address Editor** field (Image 38), enter the O/R address of the user on the remote system, then click **[OK]** to return to the main Sodium screen and **[Add]** to finish adding this user to the white pages (Image 39).

Imaae	38:	O/R	Addr	ess	Editor
mage	50.	0,11	/ iuui	CJJ	Luitoi

🐨 O/R Address Editor 🛛 🗙					
Name Form Personal Name	~				
Country Name GB	Administrative Domain Headquarters Space				
Private Domain Local	Organization				
Organizational Unit #1	Organizational Unit #2				
Organizational Unit #3	Organizational Unit #4				
Surname One	Initials				
Given Name User	Generation Qualifier				
Domain-defined type	=				
Clear	OK Cancel				

#### Image 39: User Added

14 <u>6</u>	cn=dsa,o=Field / Messaging A	dmin - Sodium 📃 🗖 🗙			
Session Edit Operations X.509 View Help Browse: User One He 🛙					
🔒 🌇 "cn=dsa,o=Field / Messaging Admin": LDAP bind t	to 'FIELD' on port 19389	Template view 💙 💼			
▲	Personal Group Contact Other	Messaging			
⊿ 🗸 o=Field i cn=Address Book	OR Addresses	/G=User/S=One/PRMD=Local/ADMD=Headquarters/C=GB/			
▷ ○ cn=Groups ▷ □ cn=Messaging Configuration	Maximum Content Length				
<ul> <li>▷ ○ cn=Users</li> <li>⊿ ○ cn=White Pages</li> <li>△ ○ n=User One</li> <li>▲ cn=User One Headquarters</li> </ul>	Message Store DN	Pick +			
	Deliverable Content Types	•			
🔒 cn=User Two	Acceptable EITs				
	Exclusively Acceptable EITs	•			
	Unacceptable EITs	•			
	O/R Addresses with Capabilities	View Save Delete +			
	Add another Clone Object cla	sses Apply Cancel			
Abort Viewing: cn=User One Headquarters, cn=White Pages, o=Field					

### Create a Connection to an External X.400 MTA & Testing using MConsole

First you need to add a Routing Tree entry for the Address Space of the External X.400 MTA, in this example this will be "/*P*=*Local*/*A*=*Headquarters*/*C*=*GB*/".

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

Image 40: MConsole – Create new Routing Tree Nodes

5	5	
	MCon	sole (Switch Configuration N
File Window View Me	ssaging Operations	Help
👿 Welcome to Message Co	onsole 🛛 🖂 Switch	Configuration Management
<ul> <li>▲ Routing Trees</li> <li>▲ Main Routing Tr</li> <li>▲ B C=GB</li> <li>♦ ADMD:</li> <li>▲ Message Transfer</li> <li>▶ FIELD</li> <li>■ External Message Tr</li> <li>▲ X.400 Message Store</li> <li>▶ Main Message S</li> </ul>	ree Add nodes Delete ransfer Agents es Store	MTA Info Filters  MTA Group
		Subtree Inform

Click [**Next**] through the Names and Domains screen and enter the details for the External MTA's X.400 Address space in the **O/R address hierarchy** screen (Image 41) and click [**Finish**].

Imago 11: Croato Nou	, Pouting T	raa nadar 0/	P addrocc	hiorarchy
innuge 41. Create New	і койсіну н	ree noues – 0/1	n uuui ess	merurcity

Create new Routing Tree Nodes
O/R address hierarchy Enter the O/R address hierarchy to be represented by this routing tree
Additional branches can be specified after the routing tree has been created
ISO 3166 Country Code GB United Kingdom 🔤
Single Space ADMD Headquarters PRMD Local
Organization
0U1 0U2
OU3 0U4
< Back Next > Finish Cancel

You should now be able to see the new Headquarters node in the main routing tree (Image 42). Now right-click on "External Message Transfer Agents" and select "New External MTA".

Image 42: New Routing Tree Node

MConsole	(Switch Configuration Management): messaging.admin@FIELD		x
MConsole File Window View Messaging Operations He     Welcome to Message Console     Switch Con     A GM Routing Tree     A GM	(Switch Configuration Management): messaging.admin@FIELD         Ip         riguration Management IS       Switch Operations         Under this folder you will find External MTAs.         External MTAs may be either Isode MTAs which you have chosen to configure in a different messag configuration for some reason, or third-party MTAs which are configured completely separately.         An external MTA is the only way that connections to non-Isode MTAs can be configured.	ing	×
		pply C	ancel

In the **MTA type** screen, select the "External X.400 MTA" radio button and click [Next].

In the **MTA Naming** screen (Image 43) enter the "MTA Name" of your External MTA and either the "Fully Qualified Hostname" or the IP Address of the External MTA. The "Directory Name" is free text and should be a name that is helpful for you to remember what the MTA is.

Image 43: MTA Naming
Create a new MTA
MTA Naming
MTAs can be named in a number of different ways, depending on the context.
The MTA Name, to be used in protocols (like X.400 P1 binds)
MTA name in protocol R17-EVAL-GUIDE
The host name or IP address of the system on which the MTA will run
Fully Qualified Hostname 172.20.1.172
The local Directory Name in this configuration (defaults to MTA Name)
Directory Name Headquarters (X.400)
Ontional local description for the new MTA
Description
[]
< Back Next > Finish Cancel

Click [**Next**] and in the Default O/R address prefix for the MTA screen, select the part of the routing tree you created earlier (PRMD=Local).

Imaae	44:	De	fault	0	/R	address	nre	fix
mage		DC	Junic	$\sim$		addicos	pre	,,,,,

Create a new MTA	_ <b>D</b> X			
Default O/R address prefix for the MTA				
Routing is setup for this address prefix. Components are used for the MTA's Global Domain Identifier.				
Choose a Routing or Address Conversion Table. Use the tree navigation tool to se complete O/R address, and then modify this value if necessary via the Edit button	lect a partial or			
cn=Main Routing Tree, cn=Messaging Configuration, o=Field	~			
<ul> <li>▲ Main Routing Tree</li> <li>▲ C=GB</li> <li>▷ ADMD=Field</li> <li>▲ ADMD=Headquarters</li> <li>PRMD=Local</li> </ul>				
Selected O/R Address				
O/R Address /PRMD=Local/ADMD=Headquarters/C=GB/				
< Back Next > Finish	Cancel			

Click [Next] and enter the MTA Name and Password of your external MTA.

#### Image 45: Remote X.400 MTA Auth Details

Create a new MTA	_ <b>D</b> X
Remote X.400 MTA authentication details	
Configure the authentication information to be used to connect to this External X.400 MTA	
Remote MTA Name to use in the bind R17-EVAL-GUIDE	
Remote MTA password to use in the bind secret	Hide
< Back Next > Finish	Cancel

Now click [Finish] to return to the main MConsole interface where you will now be able to see the external MTA you have created (under External Message Transfer Agents in Image 46).

Now expand your MTA (FIELD), select the **x400p1** channel and the "Auth" tab and, in turn, click on the [**Edit**] buttons next to "Initiator RTS Credentials" and "Responder RTS Credentials".

Image 46: Authentication Requirements



For both of these you'll need to enter the MTA Name and MTA Password of your local MTA, in Image 47 the Initiator Credentials are shown, the Responder Credentials screen (not shown) should have the same values.

Image 47: Initiator RTS Credentials

Initiator RTS Credentials
The credentials to be used in the request when FIELD connects to another MTA
Request MTA Name FIELD
Request MTA Password secret Empty Hide
OK Cancel

After filling in both Initiator and Responder credentials, click on [**Apply**] in the **Auth** tab of MConsole to commit these changes.

You can now test this connection by right-clicking on the **x400p1** channel and selecting "Test Connection from this MTA".

Image 48: Testing the Connection



Select the newly created MTA from the drop-down list and click [Run Test] as in Image 49.

Image 49: Run MTA Connection Test

	x
Test an X.400 Connection	
Click on the 'Run Test' to initiate a connection attempt from: cn=x400p1,cn=FIELD,cn=Messaging Configuration,o=Field	
To Remote MTA / Channel:	
cn=x400p1,cn=Headquarters (X.400),cn=Messaging Configuration,o=Field	~
cn=x400p1,cn=FIELD,cn=Messaging Configuration,o=Field	
cn=x400p1,cn=Headquarters (X.400),cn=Messaging Configuration,o=Field	
	~
<	>
Run Test Clear	
Clo	;e

If you have followed the instruction carefully, you'll see a successful test result (Image 50).

#### Image 50: Test Result

	x
Test an X.400 Connection	
Click on the 'Run Test' to initiate a connection attempt from: cn=x400p1,cn=FIELD,cn=Messaging Configuration,o=Field	
To Remote MTA / Channel:	
cn=x400p1,cn=Headquarters (X.400),cn=Messaging Configuration,o=Field	~
Checking to see if there is an existing connection. No existing P1 Connections to: cn=x400p1,cn=Headquarters (X.400), cn=Messaging Configuration,o=Field Performing P1 Channel connect: Connecting0 Connecting1 Connecting2 Connecting3 Connecting4 Checking to see if connection established Successfully established P1 connection from: cn=x400p1,cn=FIELD,cn=Messaging Configuration,o=Field to: cn=x400p1,cn=Headquarters (X.400),cn=Messaging Configuration,o=Field < Run Test Clear Close	

### Testing External Connections using the Xuxa Demonstration Agent

You can also test the connection by sending an email to the remote user, following the instructions in the section **Testing with the Xuxa Demonstration Agent** and selecting the remote user, who should now appear in the white pages, as a recipient.

### What Next?

More information on M-Switch X.400, 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-x400.html*.

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

- M-Store: www.isode.com/products/m-store.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
- Setting up an X.400 Email System (this guide)
- Setting up an SMTP/X.400 MIXER Gateway
- Email for Constrained Network Environments

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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