

## Harrier 3.3 Evaluation Guide

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## Contents

Introduction.....	3
Objectives.....	4
Using Isode Support.....	5
Preparing the Server Environment .....	6
Server Name .....	6
Installed Isode Software .....	6
Activating the Isode Products.....	7
Configuration Data Collection .....	7
Installing Harrier .....	8
Windows.....	8
Linux.....	8
Configuring Harrier .....	9
Using Harrier.....	11
Internet Mode .....	11
Military Mode .....	12
ACP127 Message Mode .....	16
What Next?.....	18
Whitepapers .....	18
Copyright .....	19

## Introduction

This guide demonstrates how to get up and running with Harrier 3.3. Harrier 3.3 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 Gateway (Email Messaging for low-bandwidth and/or high-latency networks)
- M-Switch User Server

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

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*Use of TLS: Due to UK Export Controls we are unable to provide Evaluation Activations that support TLS to certain geographic regions. This guide is written with the assumption that the reader is not a member of those regions and by default, we will provide a product activation that supports TLS. For customers whose region we have no current export control arrangement, further configuration information may be required and provided separately.*

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## Objectives

By the end of this evaluation you will have:

1. Installed Harrier 3.3
2. Configured Harrier 3.3 in three messaging modes:
  - Internet
  - Military mode
  - ACP127 mode
3. Configured Harrier for both internet and mmhs
4. Send and receive email messages through Harrier 3.3 in the three messaging modes.
5. Learnt about various Military-specific messaging capabilities and features that Harrier offers.

More information on Harrier can be found at [www.isode.com/products/harrier.html](http://www.isode.com/products/harrier.html).  
A comprehensive Administration Guide, which goes into far greater detail than this short document, can be found at [www.isode.com/support/help.html](http://www.isode.com/support/help.html)

## **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.

## Preparing the Server Environment

It will be assumed that Harrier is to be evaluated in the environment generated using the “M-Switch User Server Evaluation Guide”.

### Server Name

The M-Switch User Server Evaluation Guide defines the following:

Machine name: MU-ONE

Primary dns suffix for the server FIELD.NET

There is no reason why alternative naming can't be used as long as the machine name and fully qualified machine name is defined in dns or a local host file.

### Installed Isode Software

The M-Switch User Server Evaluation Guide defines the following:

Follow the instructions in the release notes for the appropriate platform for the products. Remember to install an appropriate java runtime engine first which is required for M-Vault, M-Switch and M-Box. (refer to product release notes) and in a Windows environment the visual c++ redistributable package. For this guide, the following products were used:

Messaging Activation Server 1.1

M-Vault 19.0v3

M-Switch 19.0v3

M-Box 19.0v3

Cobalt-1.4

Isode-Harrier-3.3

Please use a supported web browser as documented in the product release notes.

## Activating the Isode Products

Harrier requires a valid Product Activation Key from Isode before it will run correctly. The M-Switch User Server Evaluation Guide describes the activation process. Add “Harrier” to the list of products requested for evaluation.

## Configuration Data Collection

This guide will assume that you are utilizing the environment generated using the M-Switch User Server Evaluation Guide. Should your environment be different it would be useful to collect the following data before reaching the later configuration steps. The entries in brackets are those from the M-Switch User Server Evaluation Guide.

1. Hostname (mu-one.field.net)
2. Domain Name (field.net)
3. IMAP Server URL (mu-one.field.net:143)
4. SMTP Server URL (mu-one.field.net:587)
5. LDAP Server URL (mu-one.field.net:19389)
6. User Login Details/Passwords (simon.bates@field.net/Secret1+ & radio.operator@field.net/Secret1+)

## Installing Harrier

### Windows

Double-click the .msi file that you downloaded earlier and follow the instructions for a fresh install.

Start the “Isode Harrier Web Server” service either through the Windows Services MMC or the “Isode Service Configuration” tool.

The directory where configuration files are stored on Windows is **C:\Isode\Harrier\etc**

### Linux

The Linux installation package for Harrier is called **harrier-3.3v0-0.rpm**

To install Harrier, run the command:

```
# rpm -i harrier-3.3v0-0.rpm
```

On Linux, Harrier can be started the with following command:

```
# systemctl start harrier
```

To stop harrier run the command:

```
# systemctl stop harrier
```

When you make some configuration changes to Harrier you would need to restart Harrier service, you can do so by running the command:

```
# systemctl restart harrier
```

The directory where configuration files are stored on Linux is **/etc/isode/harrier**

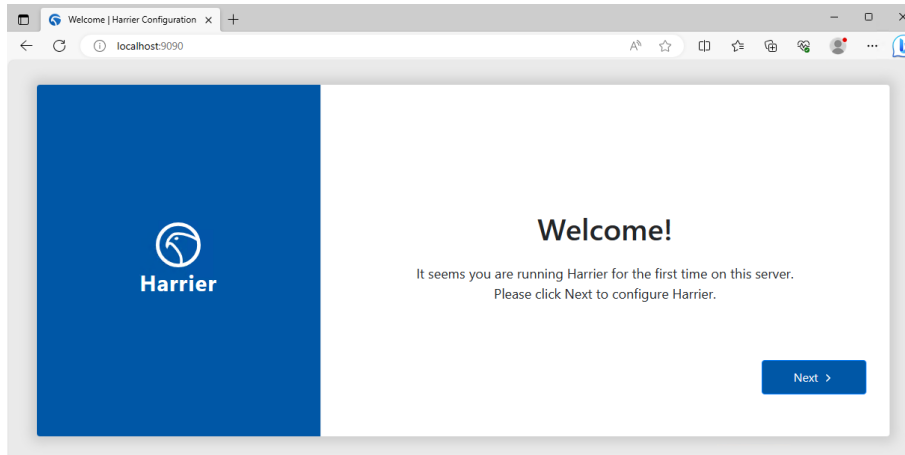


## Configuring Harrier

Open your web browser at `http://localhost:9090`

You will see the Welcome screen, showing that Harrier has installed successfully and is running.

### Harrier Welcome Screen

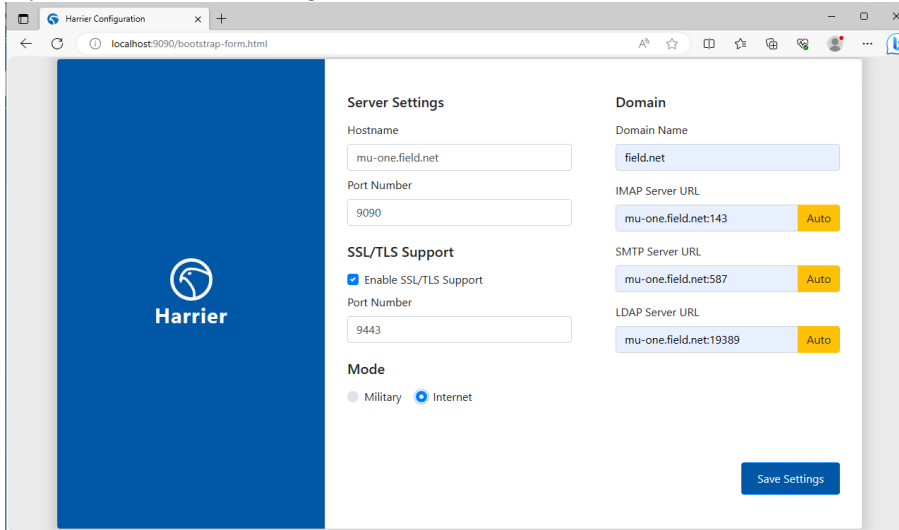


Click “Next >”

### Initial Harrier Server Settings

Fill in each field using the information collected in the section “**Configuration Data Collection**” above.

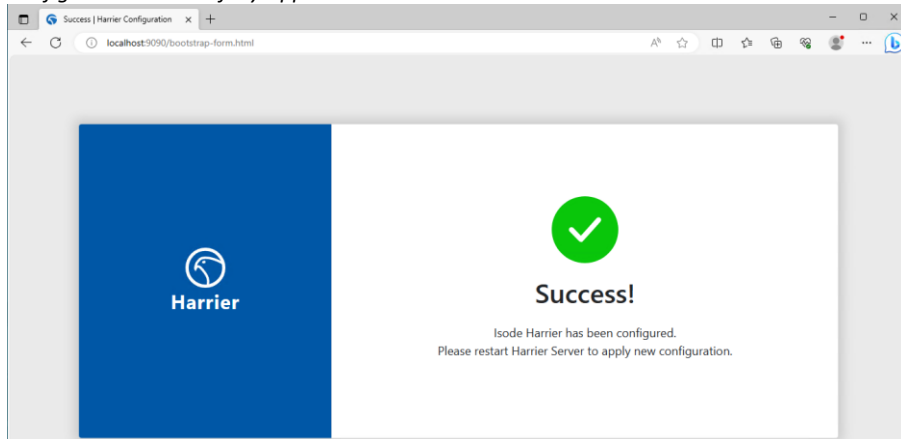
### Populated Harrier Server Settings



The screenshot shows a web browser window titled "Harrier Configuration" with the URL "localhost:9090/bootstrap-form.html". The page features a blue sidebar with the Harrier logo and a main white content area. The "Server Settings" section includes fields for Hostname (mu-one.field.net), Port Number (9090), and SSL/TLS Support (checked). The "Domain" section includes fields for Domain Name (field.net), IMAP Server URL (mu-one.field.net:143), SMTP Server URL (mu-one.field.net:587), and LDAP Server URL (mu-one.field.net:19389), each with an "Auto" button. The "Mode" section has radio buttons for "Military" and "Internet" (selected). A "Save Settings" button is located at the bottom right.

Select "Internet"  
Press "Save Settings"

### Configuration Successfully Applied



Restart the "Isode Harrier Web Server" service.

## Using Harrier

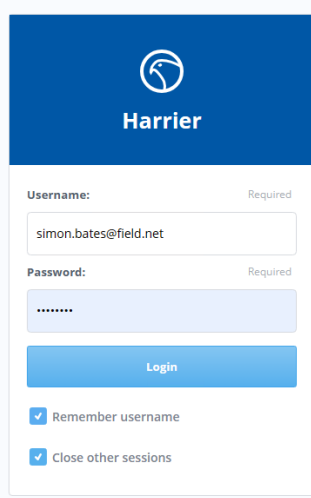
Harrier supports three types of messaging configurations: Internet, Military and ACP127.

### Internet Mode

Open `http://localhost:9090` in a browser.

Provide a Username and password.

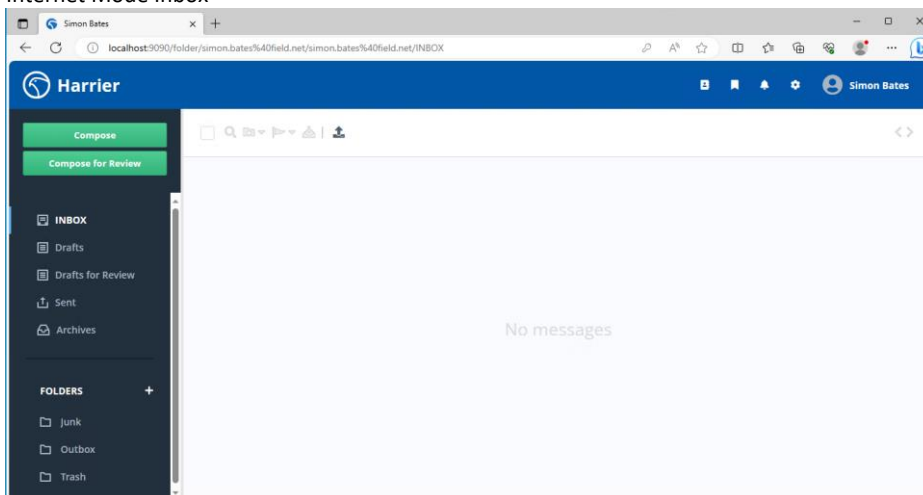
Log in – Internet mode



The screenshot shows the Harrier login interface. At the top is a blue header with the Harrier logo and the name 'Harrier'. Below this is a login form with two input fields: 'Username:' and 'Password:'. The 'Username:' field contains 'simon.bates@field.net'. Below the password field is a blue 'Login' button. At the bottom of the form are two checkboxes: 'Remember username' and 'Close other sessions', both of which are checked.

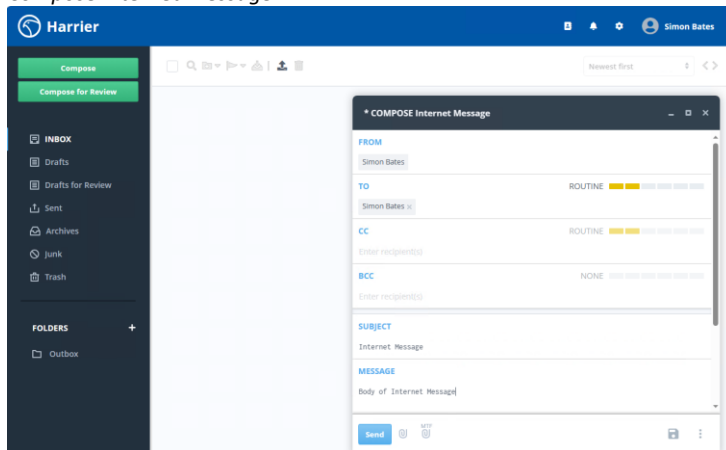
The internet mode inbox is presented.

Internet Mode Inbox



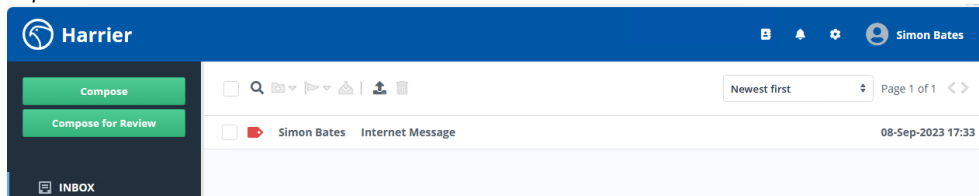
Indications of internet mode are the Delete button and the Spam and Trash folders.  
Click “Compose”

Compose Internet Message



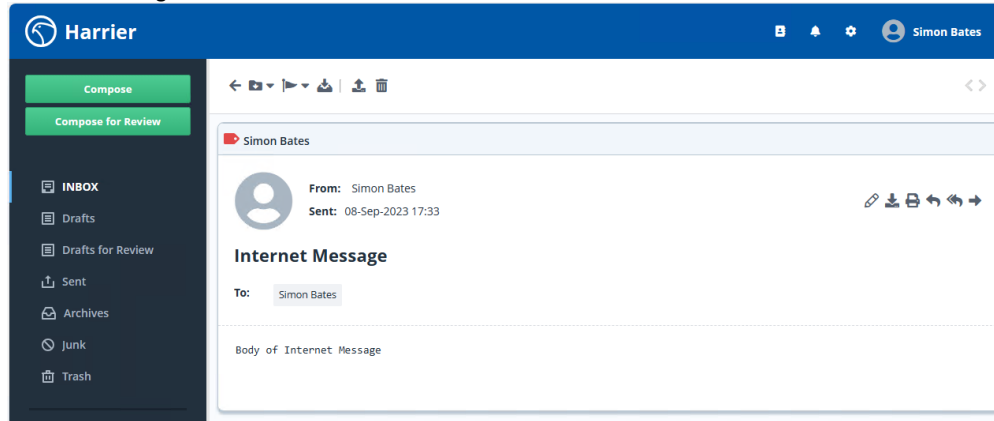
Populate the “To:”, “Subject” and “Message”  
 Press “Send”  
 The message arrives in the inbox

Populated Internet Inbox



Click on the message to view it's contents:

Internet Message Contents



**Military Mode**

The “initial Harrier configuration” will have created the file  
 “c:\Isode\harrier\etc\harrier\_web\_conf.xml”  
 Edit the file “c:\Isode\harrier\etc\harrier\_web\_conf.xml”  
 Scroll to the bottom of the file.  
 Modify the domain “field.net” so that it becomes two slightly modified domains:

Modified "harrier\_web\_conf.xml"

```
<domain name="field.net">
  <imap_url>imap://mu-one.field.net:143</imap_url>
  <smtp_url>smtp://mu-one.field.net:587</smtp_url>
  <ldap_url>ldap://mu-one.field.net:19389</ldap_url>
  <mode>internet</mode>
</domain>

<domain name="mmhs.field.net">
  <imap_url>imap://mu-one.field.net:143</imap_url>
  <smtp_url>smtp://mu-one.field.net:587</smtp_url>
  <ldap_url>ldap://mu-one.field.net:19389</ldap_url>
  <mode>military</mode>

<sio_catalog>$(harrier.dir.etc_or_share)/label_catalog.xml</sio_catalog>
<sio_policy>$(harrier.dir.etc_or_share)/policy.xml</sio_policy>
<org_allow_send_as_self>>true</org_allow_send_as_self>
</domain>
```

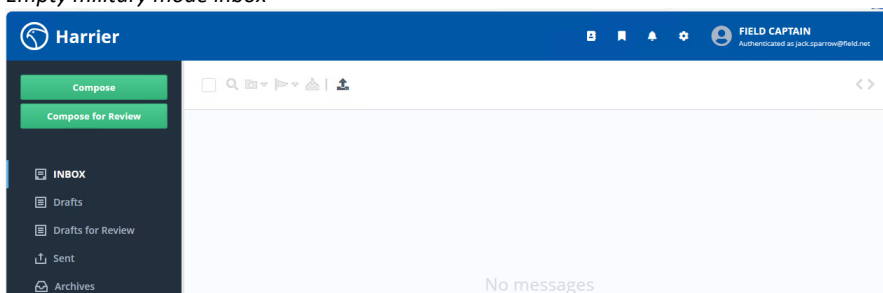
Restart the "Harrier Web Server" service.

The change above allows harrier to allow log ins from the domain "mmhs.field.net" When users from this domain log in, Harrier will operate in "military" mode.

Log in to Harrier using the user jack.sparrow@field.net

The military mode inbox is presented.

Empty military mode inbox



Note that because Jack Sparrow occupies the "FIELD CAPTAIN" role, we are presented with the "FIELD CAPTAIN" mailbox.

Click "Compose"

The military message form is presented.

## Un Populated Military Form

The screenshot shows a 'COMPOSE (no subject)' window with the following fields and options:

- FROM:** BLACK PEARL (dropdown menu)
- ACTION:** ROUTINE (with a progress bar)
- INFO:** ROUTINE (with a progress bar)
- EXEMPT:** Enter recipient(s)
- SICS:** Enter SICS
- HANDLING INSTRUCTIONS:** Enter handling instructions
- MESSAGE INSTRUCTIONS:** Enter message instructions
- DTG:** 110940Z Sep 2023 (with calendar icon)
- EXPIRES:** Set a message expiry date (with calendar icon)
- REPLY BY:** Set a deadline for a response (with calendar icon)
- MMHS TYPE:** Set an MMHS type
- SUBJECT:** Set an optional subject for the message
- MESSAGE:** (empty text area)

At the bottom left is a 'Send' button with a 'u' icon and an 'MTF' icon. At the top right is a 'Create...' button.

The compose screen allows for:

1. The addition of Security Labels
2. Defining a message Originator
3. Action and Information recipients together with their precedence selection
4. Exempt recipients. This field can be used to exclude any recipients from a message sent to a distribution list.
5. Subject Indicator Codes (SICS). Formal military messages are often originated from and addressed to organizations. BLACK PEARL, is the organization configured at MU-ONE when following the M-Switch User Sever Evaluation guide. When a message is delivered to an organization it is processed by a Profiler, which looks at the content of the message to determine which Roles should receive the message. This is often based on SIC (Subject Indicator Codes) included in the message. Distribution based upon other headers and content is possible.
6. Handling & Message Instructions
7. Message Expiry and Message Reply By times/dates
8. Message Subject and content
9. This message type supports attachments, which can be added using the icon next to the "Send" button

Populate the Form fields with some test information.

Populated Military Form

\* COMPOSE Military Message

NATO|Restricted Create...

**FROM**  
FIELD CAPTAIN

**ACTION** PRIORITY  
FIELD CAPTAIN x

**INFO** ROUTINE  
Enter recipient(s)

**EXEMPT**  
Enter recipient(s)

**SICS**  
A1B x

<b>HANDLING INSTRUCTIONS</b> Enter handling instructions	<b>MESSAGE INSTRUCTIONS</b> Enter message instructions
<b>DTG</b> 110940Z Sep 2023	<b>EXPIRES</b> Set a message expiry date
<b>REPLY BY</b> Set a deadline for a response	<b>MMHS TYPE</b> Set an MMHS type

**SUBJECT**  
Military Message

**MESSAGE**

Send

Press “Send”

The message arrives in the inbox

Populated Military Inbox

Harrier FIELD CAPTAIN  
Authenticated as jack.sparrow@field.net

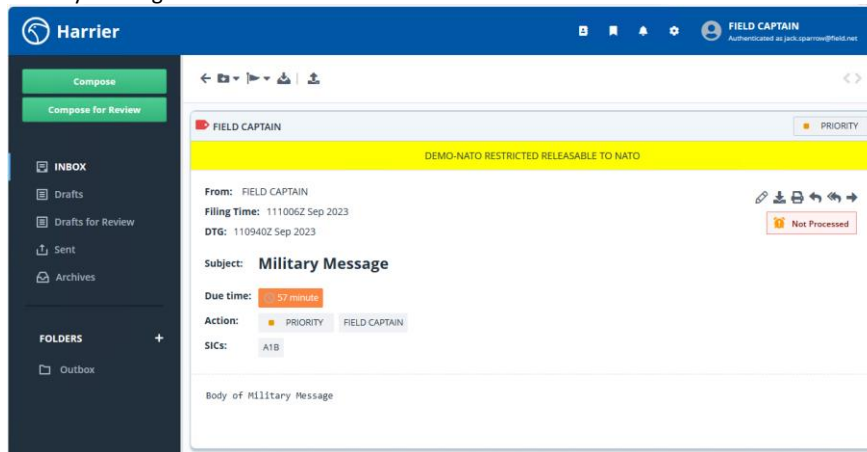
Compose  
Compose for Review  
INBOX

Page 1 of 1

Military Message  
FIELD CAPTAIN DEMO-NATO RESTRICTED RE... 59 minute PRIORITY 110940Z Sep 2023

Click on the message to view it's content:

## Military Message Contents



## ACP127 Message Mode

Harrier can also be used in a mode more suited as an ACP127 client.

Edit the file “c:\Isode\harrier\etc\harrier\_web\_conf.xml”

Scroll to the bottom of the file.

Modify the domain “mmhs.field.net” so that “mode” is changed from “military” to “acp127”

*Edit configuration for acp127 mode*

```
<domain name="mmhs.field.net">
  <imap_url>imap://mu-one.field.net:143</imap_url>
  <smtp_url>smtp://mu-one.field.net:587</smtp_url>
  <ldap_url>ldap://mu-one.field.net:19389</ldap_url>
  <mode>acp127</mode>

<sio_catalog>$(harrier.dir.etc_or_share)/label_catalog.xml</sio_catalog>
  <sio_policy>$(harrier.dir.etc_or_share)/policy.xml</sio_policy>
  <org_allow_send_as_self>>true</org_allow_send_as_self>
</domain>
```

Edit  
the  
file

Restart the “Harrier Web Server” service.

Log in to Harrier using the user jack.sparrow@field.net

Click “Compose”

Populate some test data.



*Compose in ACP127 Mode*

\* COMPOSE ACP127 Message

NATO|Restricted Create...

**EXEMPT**  
Enter recipient(s)

**SICS**  
Enter SICS

<b>HANDLING INSTRUCTIONS</b> Enter handling instructions	<b>MESSAGE INSTRUCTIONS</b> Enter message instructions
---	---

<b>DTG</b> 141643Z Sep 2023	<b>EXPIRES</b> Set a message expiry date
--------------------------------	---

<b>REPLY BY</b> Set a deadline for a response	<b>MMHS TYPE</b> Set an MMHS type
--	--------------------------------------

**SUBJECT**  
ACP127 Message

**MESSAGE**  
Body of Message

Send MTF

In ACP127 mode, you will notice two major differences in the message compose window:

1. Two vertical lines enforce the character limit for subject and message content fields
2. As ACP127 messaging does not support message attachments, there is no file attachment option next to the “send” button.

## What Next?

More information on Harrier can be found on the Isode website at [www.isode.com/products/harrier.html](http://www.isode.com/products/harrier.html).

Detailed configuration and operational information on Harrier can be found in the Admin Guide available from the Isode website at [www.isode.com/documentation/HARRIERADM.pdf](http://www.isode.com/documentation/HARRIERADM.pdf)

## Whitepapers

Isode regularly publishes whitepapers on technical and market topics related to its products. A full list of these can be found at [www.isode.com/whitepapers/](http://www.isode.com/whitepapers/).

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