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webMethods X.400 Adapter

Installation Guide

VERSION 6.5

MARCH 2009

This document applies to webMethods X.400 Adapter Version 6.5.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

ADAPTER-X400-IG-65-20090331

CONTENTS

1 About This Guide

Welcome!

This guide is for users of the webMethods X.400 Adapter. It describes how to install the webMethods X.400 Adapter.

The webMethods X.400 Adapter is built on top of webMethods Trading Networks (Trading Networks) and the webMethods Integration Server and is implemented as an Integration Server Gateway Service.

The X.400 Adapter uses the ADDONMAIL P7 client (third party product of ADDONMAIL UA-FI) to enable the webMethods Trading Networks (Trading Networks) to communicate with X.400 servers using the P7 protocol.

Typographical Conventions

This document uses the following typographical conventions:

Convention	Example
Procedures are highlighted by a blue box in the left column. Procedures are described as a series of numbered steps.	**Procedure Title** 1. Select the **File** command from the **Activity** menu.
Characters that you must type exactly are shown in a typewriter (`courier`) font.	Type: `setup` and then press ENTER.
Variable information that you must type based on your specific situation or environment is shown in italics.	Type: *webMethods6**IntegrationServer*\doc and then press ENTER.
Keyboard keys are shown in uppercase.	Press ENTER; then press TAB.
Keys that you must press simultaneously are joined with the "+" symbol.	Press CTRL+ALT+M.
Directory paths are shown with the "\" directory delimiter unless the subject is UNIX-specific. In these cases, the "/" is used. If you are working in a UNIX environment, substitute a "/" for the "\" shown in the procedures in this book.	*webMethods6**IntegrationServer*\packages

Convention	Example
Information that you must read before beginning a procedure or that alerts you to negative consequences of certain actions is denoted with this special symbol.	**Caution**: If the folder is not already open in the Document Browser, open it before you start the following procedure.
Notes that provide related, but non-critical, information are denoted with this special symbol.	**Note**: When you start the Trading Networks Console, you will be asked to log on to a webMethods Trading Networks Server.

Related Documentation

This section lists the documentation that is provided with webMethods X.400 Adapter. In addition, it lists documentation for the ADDONMAIL UA-FI that you might also find useful.

webMethods X.400 Adapter Documentation

The following table lists other manuals that webMethods provides with the webMethods X.400 Adapter.

Refer to this book...	For...
webMethods X.400 Adapter User's Guide	Information about how to use the webMethods X.400 Adapter, including: setting up Trading Networks profiles for the X.400 Adapter, as well as sending and receiving messages, notifications, and errors.

ADDONMAIL UA-FI Documentation

The ADDONMAIL product UA-FI (User Agent File Interface) is for mail enabling of applications using the X.400 network.

The following table lists documents that you might find useful.

Refer to this book...	For...
UA-FI Configuration Guide	Detailed information concerning UA-FI configuration files and parameters (e.g., `maxware.ini`, `<service profile>.prf`) and the configuration of ADDONMAIL P7 client (UA-FI).
	Location: Delivered with the ADDONMAIL-P7 client

Refer to this book...	For...
UA-FI Programmer's Guide	Detailed information concerning installation, configuration, and programming of the ADDONMAIL P7 client (UA-FI).
	Location: Delivered with the ADDONMAIL-P7 client.

2 Installing the webMethods X.400 Adapter

Packages to Install for the X.400 Adapter

To install the webMethods X.400 Adapter, you need to install two Integration Server packages:

- X400 (X.400 Gateway package)

- X400forTN (X.400 for Trading Networks package)

Where you install the packages depends on whether you are using a DMZ.

Using a DMZ	Machine on which to install the packages
Yes	▪ Install the X400 package on the machine within the DMZ. This machine is referred to as the *X.400 Gateway*. ▪ Install the X400forTN package on the machine outside DMZ
No	▪ Install both the X400 and X400forTN on the same machine

System Requirements

This section describes the system requirements that must be met before you can install the webMethods X.400 Adapter.

Platform and Operating System Requirements

The following table lists the supported platforms for the X.400 Gateway and the Java virtual machine (JVM) to use for each platform.

In the table, the Supported JVM column lists the JVMs that you can use.

Platform and Operating System	Supported JVMs
x86_64 processor, Red Hat Enterprise Linux 4, 64 bit	IBM Java 1.4, 64 bit

webMethods Software Requirements

The following table lists the webMethods components you must install before you can install webMethods X.400 Adapter.

Component	Version
Integration Server (required for the X400 and X400forTN packages)	6.5
Developer (required for the X400 and X400forTN packages)	6.5
Trading Networks (required for the X400forTN package)	6.5

Third-Party Software Requirements

The following table lists third-party software that you must install before you can install the X400 package on the X.400 Gateway machine.

Product	Version	Notes
ADDONMAIL UA-FI Client for Linux	>= 3.17	TCP/IP

Hardware Requirements

The following lists the hardware requirements and recommendations for the X.400 Gateway machine. Included are the requirements for the Integration Server, which must be installed on the same machine as the webMethods X.400 Gateway.

Hardware	Requirements
CPU and Memory	No additional requirements beyond those of the Integration Server and Trading Networks version 6.5.
Hard Drive Space	Recommendation is a minimum of 1 MB for temporary files. The accurate requirement depends on configuration and payload volume.

webMethods Component Compatibility

The following table lists other webMethods components that are compatible with version 6.5 of the webMethods X.400 Adapter.

Component	Version
Integration Server	6.5
Developer	6.5
Trading Networks	6.5

Installing the webMethods X.400 Adapter

Before you can install the webMethods X.400 Adapter, you must:

Prerequisite	For more information, see …
Install the ADDONMAIL P7 client (UA-FI)	Chapter about installing and chapter about configuration and customer installation in the *UA-FI Programmers Guide*

Perform the following steps to install webMethods X.400 Gateway:

Stage	Description
1	Install the X400 package
2	Install the X400forTN package

Stage 1   ## Install the X400 package

Install the X400 package on the X.400 Gateway machine. If you are using a DMZ, this is the machine within the DMZ.

1. If the Integration Server is not already running, start it and open the Server Administrator.

2. Copy the X.400.zip file from the download site to the following folder:

    webMethods6\IntegrationServer\replicate\inbound

3. From the Server Administrator in the navigation area, select the **Management** option from the **Packages** menu.

4. Select **Install Inbound Releases**.

5. Select **X400.zip** from the list of inbound releases.

6. Select the **Activate upon installation** checkbox.

7. Click **Install Release**.

Stage 2 **Install the X400forTN package**

If you are using a DMZ, install the X400forTN package on the machine outside of the DMZ. You must also have webMethods Trading Networks installed on this machine. If you are not using a DMZ, install the X400forTN package on the same machine as the X400 package.

1. Copy the `X.400forTN.zip` file from the download site to the following folder:

   webMethods6\IntegrationServer\replicate\inbound

2. From the Server Administrator in the navigation area, select the **Management** option from the **Packages** menu.

3. Select **Install Inbound Releases**.

4. Select **X400forTN.zip** from the list of inbound releases.

5. Select the **Activate upon installation** checkbox.

6. Click **Install Release**.

Configuring the webMethods X.400 Gateway

Perform the following steps to configure the X.400 Gateway:

Stage	Description
1	Configure the ADDONMAIL P7 client (UA-FI)
2	Configure the general parameters for the X.400 Gateway
3	Configure the communication parameters for the X.400 Gateway
4	Test the X.400 Gateway connection

Stage 1 Configure ADDONMAIL P7 client (UA-FI)

This section lists the UA-FI configuration parameters that you need to specify. For more information about UA-FI configuration files and parameters, see the chapters about configuration and customer installation in the *UA-FI Configuration Guide* and *UA-FI Programmer's Guide*.

ACKNOWLEDGE_MODE = <mode>
Specifies whether the UA-FI will automatically generate Receipt Notifications. The keyword is located in *maxware.ini*. You can specify one of the following for <mode>.

■ AUTOMATICALLY—The UA-FI automatically generates the Receipt Notifications. This is the default.

■ MANUALLY—The UA-FI does not automatically generate the Receipt Notifications. Refer to chapter *Sending an X.400 Notification* in the *X.400 Adapter Users Guide* for details.

■ REQUESTED—If requested, the UA-FI generates the Receipt Notifications each time it fetches the messages. The UA-FI will generate the Receipt Notifications even though the messages were fetched before and the UA-FI has sent a Receipt Notification before.

MESSAGE_LANGUAGE = <ISO two-letter country code>
Specifies the language of the error message file (named `max`*cc*`.msg`, where *cc* denotes the two-letter country code). The default value is EN. The keyword is located in *maxware.ini*.

„X.25Driver =0"
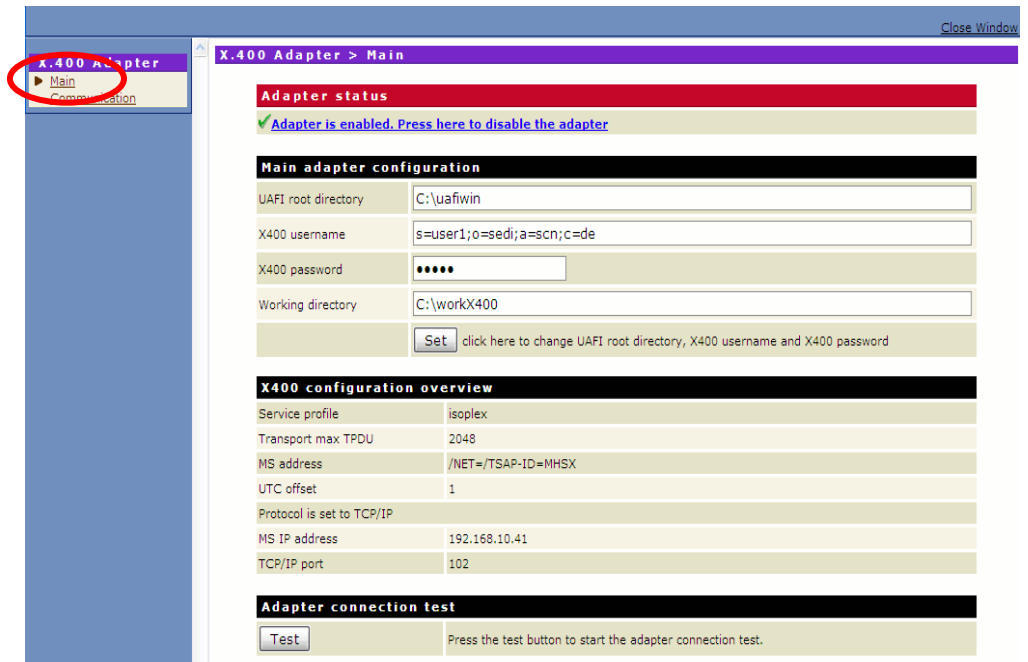Set the above parameter in the `isoplex.prf` configuration file.

Stage 2 Configure the general parameters for the X.400 Gateway

1. From the Server Administrator in the navigation area, select the **Management** option from the **Packages** menu.

2. Select **X400** from package list and click on its **Home** symbol.

3. Click **Main** in the navigation area.

4. Specify the following parameters:

For this parameter…	Specify…
Adapter status	Whether you want the X.400 Adapter enabled or disabled. ▪ To enable the adapter, click **Adapter is disabled. Press here to enable the adapter.** ▪ To disable the adapter, click **Adapter is enabled. Press here to disable the adapter**.
UAFI root directory	The directory selected for UA-FI installation.
X400 username	Your own O/R (Originator/Recipient) name. This is the identifier necessary for access to your own X.400 mailbox. The value is provided by your mailbox provider or X.400 message store administrator. The following lists the elements of an X.400 address. Separate the X.400 address elements using a semicolon (;): C　　ISO-Country code A　　ADMD P　　PRMD S　　Surname G　　Given name O　　Organization name OU1　Organization unit name 1 OU2　Organization unit name 2 OU3　Organization unit name 3 OU4　Organization unit name 4
X400 password	Your X400 password.
Working directory	Directory the X400 Gateway uses to store temporary files. The directory that you specify must already exist. The X400 Gateway automatically creates the subfolders it needs.

Caution: *Never* change this directory and its content.

5. Click **Set** to update the general X.400 Gateway parameters.

This sets some values in the maxware.ini file, some values in the <service profile>.prf file and some values in the *webMethods6\IntegrationServer*packages\X400\config\x400Cfg.properties file.

Caution:

▪ Anytime you change one of the parameters on this screen, you *must* click **Set** again to

update the value.

- If you update values and click **Set** when the adapter is enabled, the adapter is automatically *disabled*. You should test the connection before enabling the adapter. For instructions for testing the connection, see "Test X.400 Gateway connection" on page 19. To enable the adapter, click **Adapter is disabled. Press here to enable the adapter** in the **Adapter status** section of the screen.

Stage 3 Configure the communication parameters for the X.400 Gateway

For more information about setting the communication parameters, see the *UA-FI Configuration Guide.*

1. From the Server Administrator in the navigation area, select the **Management** option from the **Packages** menu.

2. Select **X400** from package list and click on its **Home** symbol.

3. Click **Communication** in the navigation area.

4. In the **Service profile** field, specify the name of the UA-FI configuration to use for communication with the X.400 message store and click **Set**.

You can find the UA-FI communication parameters in the following files:

- `maxware.ini,` which includes configuration parameters used by UA-FI

- `<service profile>.prf`, which contains Mail Service-specific parameters (e.g., addresses to the X.400 message store)

   For more information about the UA-FI-parameters, see the *UA-FI Configuration Guide.*

5. In the **Transport max TPDU** field, specify the maximum number of octets contained in a TPDU and click **Set**. This value is a result of negotiation between the communicating transport layers. Possible values are 128, 256, 512, 1024 and 2048. For best performance, use a larger number, e.g., 2048.

6. In the **MS address** field, specify Message Store (MS) address and click **Set**. The address contains the necessary addressing information, including network DTE-address, TSAP, SSAP and PSAP of the Message Store. When specify the Message Store address, consider the following:

   - Separate the values using the character '/".
   - Prefix network address values with **/Net**=. The network value you specify is case-sensitive.
   - Prefix **TSAP** values with **/TSAP-ID**=. The TSAP value you specify is case-sensitive.
   - Prefix **SSAP** values with **/SSAP-ID**=. The SSAP value you specify is case-sensitive.
   - Prefix **PSAP** values with **/PSAP-ID**=. The PSAP value you specify is case-sensitive.
   - Start the value of a Service Access Point with `0x` if you want to specify a hexadecimal value. The value must consist of a sequence of pairs of hexadecimal digits (0-F). If you specify non-hexadecimal characters, the non-hexadecimal characters are ignored. If you do not specify an even number of hexadecimal digits, the value you specify is padded with zeros (0).

7. In the **UTC offset** field, specify the difference between your local time and the GMT in hours and click **Set**.

8. In the **Protocol** field, specify the communication driver to use for communication with the message store and click **Set**. The X.400 Gateway supports **TCP/IP** and **ISDN** (Windows only) communication modules (drivers) that access different networks.

   - If you specify **TCP/IP** for **Protocol**, specify the following field:

– In the **TCP/IP** field, specify the TCP/IP port number to the
Message Store. Specify a port number between 0 and 65535.
The default port number is 102.

▪ If you select **ISDN** (Windows only) for **Protocol**, specify the
following fields:

– In the **ISDN number** field, specify the telephone number to the
Message Store.

– In the **ISDN submit delay** field, specify the number of seconds
for the delay of an ISDN submit.

– In the **MS IP address** field, specify the IP address to the
Message Store, using standard IP format (e.g.,
`192.168.1.123`).

Caution:

▪ Anytime you change one of the parameters on this screen, you *must* click **Set** again to
update the value.

▪ If you update values and click **Set** when the adapter is enabled, the adapter is
automatically *disabled*. You should test the connection before enabling the adapter.
For instructions for testing the connection, see "Test X.400 Gateway connection" on
page 19. To enable the adapter:

1. From the home page of the X400 package, click **Main** in the navigation area.

2. In the **Adapter status** section, click **Adapter is disabled. Press here to enable
the adapter**.

Stage 4 Test X.400 Gateway connection

Before you enable the adapter, you should test the X.400 Gateway connection to the
X.400 Message Store.

1. From the Server Administrator in the navigation area, select the
Management option from the **Packages** menu.

2. Select **X400** from package list and click on its **Home** symbol.

3. Click **Main** in the navigation area.

4. Scroll to the bottom of the page and click **Test**.
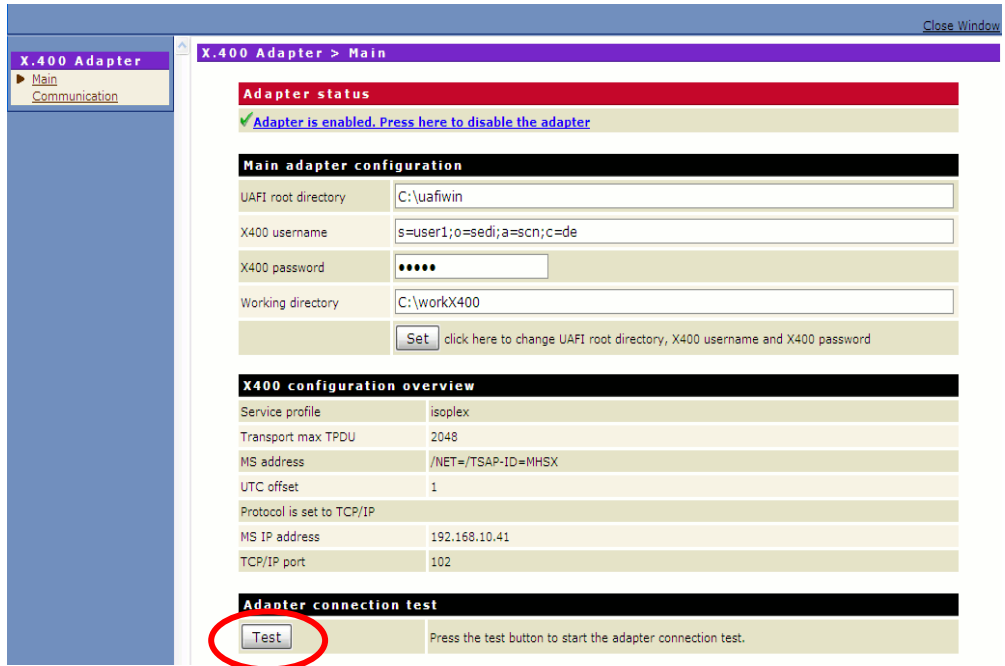
5. The X.400 Gateway returns with one of the following values:

Return value	Meaning…
0	The X.400 Gateway successfully established a connection to the X.400 Message Store.
-1	An error occurred when the X.400 Gateway attempted to connect to the X.400 Message Store.
	If provided by UA-FI, further error messages are displayed. For more information about UA-FI error messages, see the chapter about error handling in the *UA-FI Programmer's Guide*.

Stage 5   Configure cleanup interval for cross reference list (optional)

To build a relationship between a localId generated by ADDONMAIL P7 client (UA-FI) for a X.400 message and the related TN documentId(s), webMethods X.400 Adapter uses a cross reference list file. The relationship is used to set the correct TN user status for each TN document, which is included in a X.400 Mail.

For automatic cleanup of old entries in this list, there are two configuration parameters in the file *webMethods6\IntegrationServer*\packages\X400\config\x400Cfg.properties,

which can be edited/added manually.

Parameter	Meaning...
CrossRefMaxAge	maximum entry age in hours **Default is 24** If an entry is older than <maximum entry age> it will be deleted during next cleanup interval.
CrossRefCleanupInterval	number of send&fetch calls to wait, until the cleanup is processed; **Default is 100** Cleanup cycle is started after <number> of send&fetch calls.

Changing the default values may be necessary, if there is high traffic on your system and the list is growing too much.

Stage 6   Configure the X.400 Adapter - Remote Server

1. At the machine where the X400 TN package is installed, start the webMethods Integration Server and login to the administration GUI

2. Under the **Settings** menu of the navigation aria click **Remote Servers**

3. Enter the following information:

4.

For this parameter...	Specify...
Alias	Name that you want to use for the alias.
Host Name or IP Address	Host name or IP address of the remote server for which you are creating the alias
Port Number	Port number on which the remote server listens for incoming requests from the server
User Name	User name for a user account on the remote server
Password	Password for the user account.

5. Click the **Save Changes** button to save the parameters entered

Uninstalling the webMethods X.400 Adapter

Perform the following to uninstall the webMethods X.400 Adapter:

Stage	Description
1	Uninstall the X400 package
2	Uninstall the X400forTN package
3	Uninstall the ADDONMAIL P7 client (UA-FI) See chapter about installing and chapter about configuration and customer installation in the *UA-FI Programmers Guide*

Stage 1 Uninstall the X400 package

1. From the Server Administrator in the navigation area, select the **Management** option from the **Packages** menu.

2. From the package list, select the **X400** package.

3. Click Delete ✖ to uninstall the X400 package.