Version 5.2.2

Administrator Guide

April, 24 2011

Copyright 2010 EtherFAX, LLC

Table of Contents

Disclaimers 4
Support 5
Introduction 6
Components 6
EtherFAXfx Network Architecture 7
EtherFAXfx Stand-Alone Installation 7
EtherFAXfx N-Tier/Multi-Server Architecture 7
Initial Steps after Installation 9
Initial Admin Login 9
Setting up EtherFAXfx 10
Connecting and Configuring Fax Lines/Boards 11
Configuring Fax Ports to Send and Receive Transmissions 11
Configuring Dialing Rules 12
Raw Fax Dialing Rules 15
Managing Raw Fax Dial Rules 15
Configuring Port Grouping for Outbound Transmissions 16
Create New Port Group 16
Change Existing Port Group 17
Setting Up Outbound Routing Rules 17
Change Existing Outbound Routing Rule 21
Fax Agent 21
Introduction 21
Service Registration 21
Service Reregistration 23
Configurations 23
Working with Users and Domains 27
EtherFAXfx Domains 27
Overview 27
Creating Users 29
Manually Create a User 29

Synchronize with Microsoft Active Directory 30
Import Users from a File 39
Modifying Users 43
Single User 43
Multiple Users 44
User/Domain Permissions 47
EtherFAXfx Permissions Hierarchy 47
Configuring User Permissions 47
Working with Faxes & Messages 49
Working with Inbound Faxes 49
Routing Inbound Faxes to Users 49
Managing Un-routed Fax 51
Printing Faxes with Network Printers 53
Setting up Network Printer 53
Working with Outbound Faxes 56
Print to Fax (EtherFAXfx Print Driver) 56
Web UI 56
Email to Fax 56
File Gateways 64
PCL Print Spooler 68
Working with Blacklist Publications & Subscriptions 73
Create a Blacklist Publication 73
Subscribe Users to a Blacklist Publication 75
Working with Tracking Keys 76
Create additional Tracking Keys 77
Create Tracking Dictionary 79
EtherFAXfx Notifications 81
Notification Types 81
Delivery Templates 82
Working with Address Books 90
User Private Address Books 90
Global/Public Address Books 90
External Address Books 91
Importing Contacts from CSV 95

Import Specification 96
Default Settings 97
Monitoring EtherFAXfx 99
EtherFAXfx Reports 99
Creating the Report 99
Activity Report 99
Default Report 100
Top 10 List 100
EtherFAXfx Queues 100
Message Queue 100
Message Schedule 100
Actions available on the Message Queue/Schedule: 101
Maintenance & House Keeping 102
Purging Records 102
Backup & Restoring EtherFAXfx SQL Database 103
The Database Backup Guide 103
The Database Restore Guide 107
Backup & Restoring EtherFAXfx Document Stores 109
Appendix A – Configuration Tokens 110
Appendix B – Message Tokens 112
Appendix C – User Tokens 116
Appendix D – Utility Tokens 118
Token Extended Syntax 119
Appendix E – Gateway Specifications 121
Embedded Codes 121
Embedded Codes for PCL 121
Embedded Codes for PDF 121
Embedded Code Commands 121
Control File 124
HP Digital Sender 126
SAP 126
FujiXerox XST 126
Oracle 126
Xerox DOC XST 126
Custom Gateway Setup [v5.2.1.15 and above] 127

Disclaimers

etherFAX and etherFAXfx are registered trademarks of etherFAX, LLC. Windows is a registered trademark of Microsoft Corporation. All other trademarks are the property of their respective owners.

Support

EtherFAXfx customers are encouraged to purchase a EtherFAXfx Support Contract which provides them with unlimited telephone, email and web based product support from Monday to Friday 8.00 am to 5.00 pm Mountain time (GMT -7). EtherFAXfx Partners can also provide on-site support and training when needed. EtherFAXfx Support Contract holders are entitled to all EtherFAXfx product service packs and upgrades at no additional charge.

Web Support: www.etherFAX.com
Email Support: Email support is available at support@etherFAX.net
Phone Support: EtherFAX support technicians can be reached at +1 (303) 640 4338

Introduction

Components

The EtherFAXfx 2007 fax server consists of the following modules and components.

EtherFAXfx IIS web component (EtherFAXfx Web Client & Admin Panel)

EtherFAXfx web client allow users to view, send, forward, retrieve, search and print faxes from any compatible Web browser. Also includes admin panel for administrator to manage the fax server.

EtherFAXfx Render Agent (Document Rendering Engine)

This is the document conversion engine that renders native documents to faxable format (TIFF) and submits documents to the fax board.

EtherFAXfx FaxAgent (Fax board & FOIP Drivers)

This service/component handles fax requests from and to EtherFAXfx fax server and acts as the agent between EtherFAXfx fax services and the fax board.

EtherFAXfx SMTP Listener (Email to Fax integration)

This service/component handles and parses email messages sent from any SMTP-enabled email servers to be sent as faxes through EtherFAXfx.

EtherFAXfx File Gateways (Embedded Codes & Control File Integration)

Enable backend applications such as ERP, CRM & AS/400 to drop faxes into network folders/FTP with embedded fax information which is monitored by the file gateway service.

EtherFAXfx Database (Microsoft SQL 2008 Engine)

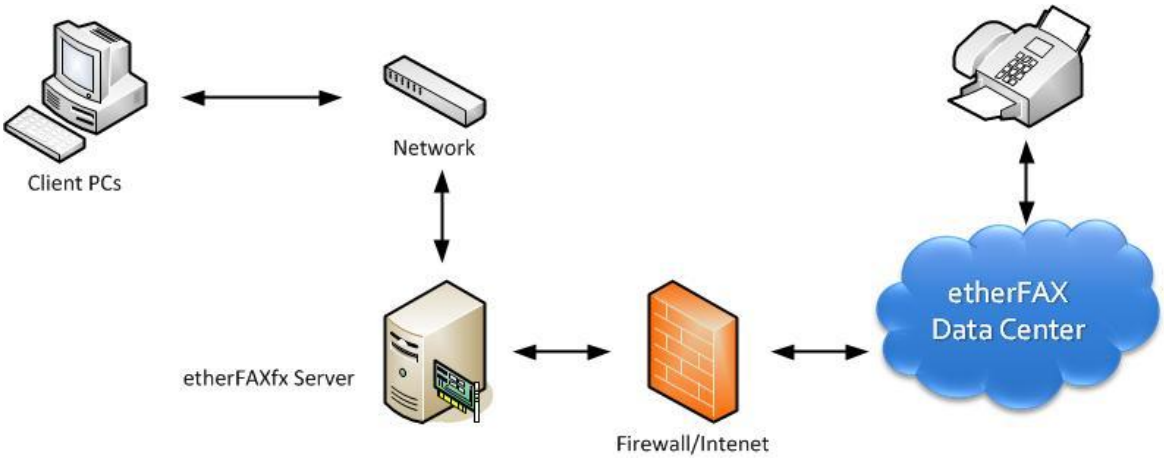
Stores transactional records and information of all incoming/outgoing faxes, users, domain, and system information.

EtherFAXfx Web Services/SOAP SDK

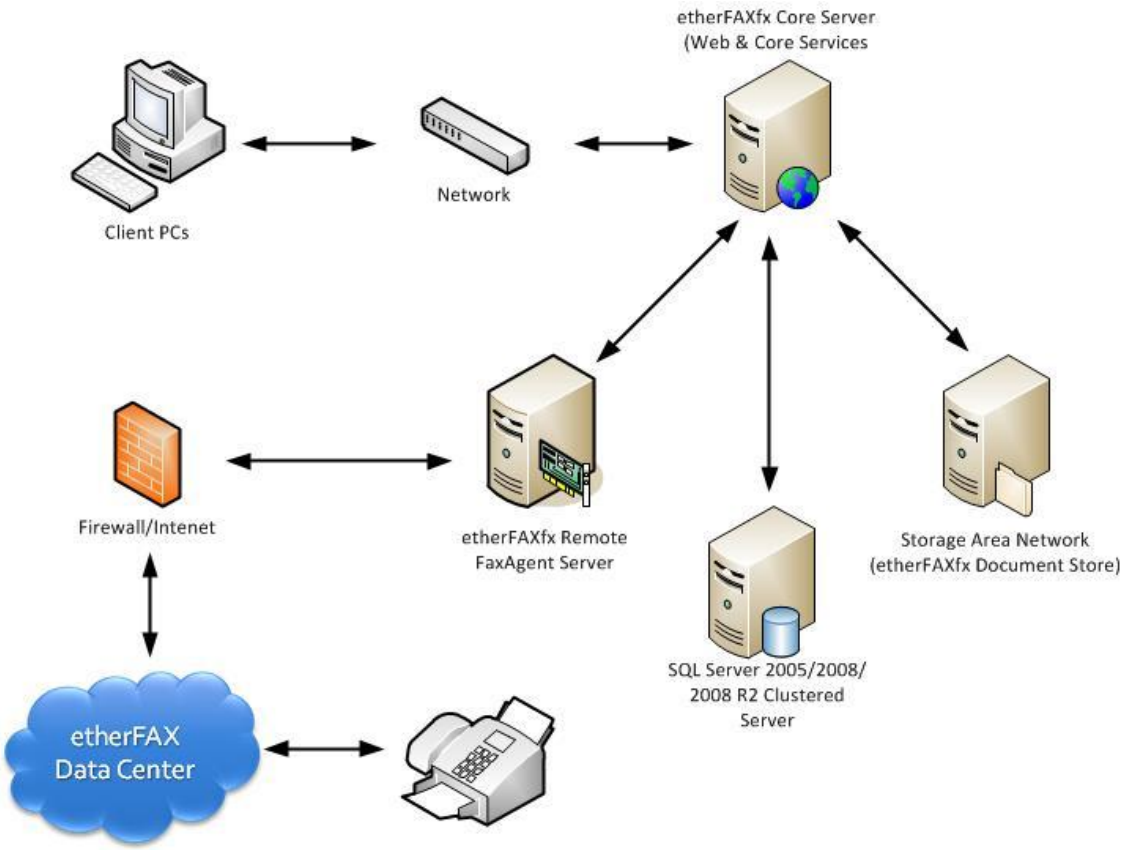
Allow third-party applications to integrate EtherFAXfx functionalities through a set of comprehensive APIs.

EtherFAXfx Network Architecture

EtherFAXfx Stand-Alone Installation



EtherFAXfx N-Tier/Multi-Server Architecture



Initial Steps after Installation

Initial Admin Login

After EtherFAXfx has been installed, you should log in as the administrator.

1. Open your Web browser and go to the URL `http://<fax server name>/admin`, where `<fax server name>` is the server where EtherFAXfx was installed.

2. The login screen displays. Log in using the initial default credentials.
   Login: **admin**
   Password: **password**

3. Click **Login**.

4. The admin panel displays. You should now change the admin password from the default value. For information about changing a user's data, see the chapter titled "Modifying Users" starting on page 43.

Setting up EtherFAXfx

Before EtherFAXfx users can begin sending or receiving faxes, you must perform the following tasks:

1. Create domains (Optional).
   For more information, see the chapter titled “EtherFAXfx Domains” starting on **page 27**.

2. Create users.
   For detailed instructions, see the chapter titled “Creating Users” starting on **page 29**.

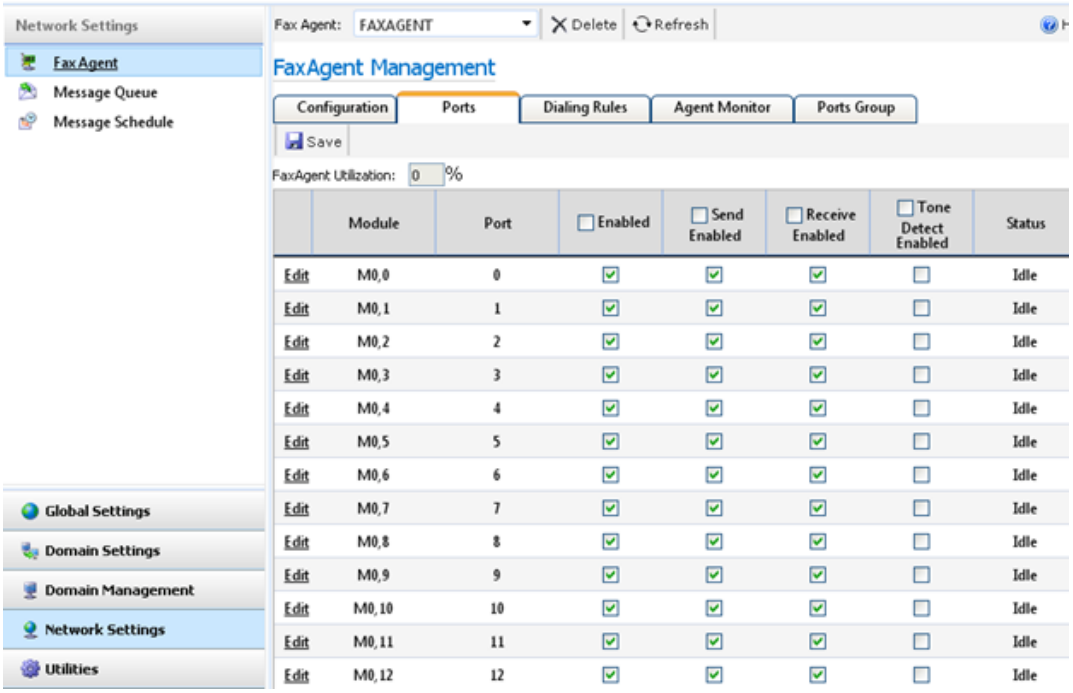
3. Configure Fax board properties.
   For detailed instructions, see the chapter titled “Connecting and Configuring Fax Lines/Boards” starting on **page 11**.

4. Create inbound routes.
   For detailed instructions, see the chapter titled “Routing Inbound Faxes to Users” on **page 49**

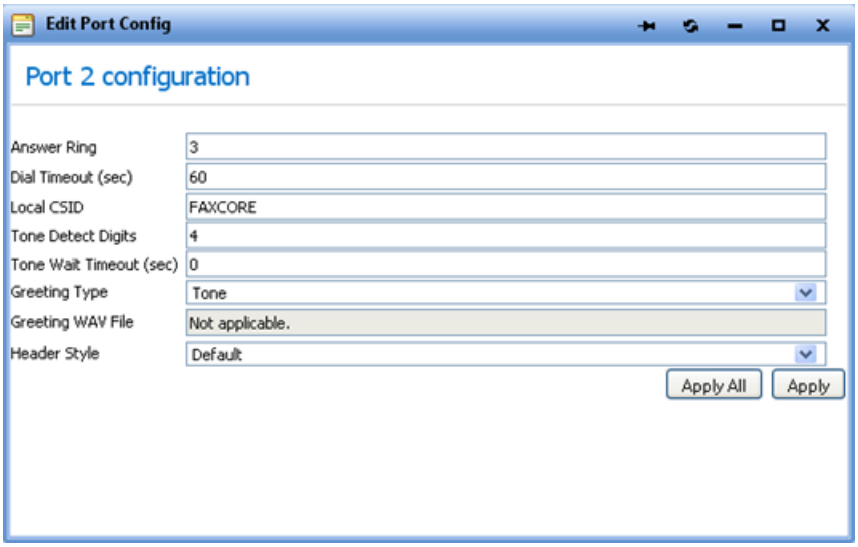
Connecting and Configuring Fax Lines/Boards

Configuring Fax Ports to Send and Receive Transmissions

1. Navigate to **Network Settings > Fax Agent > Ports**. This section allows management of the available fax ports for the selected fax agent. Here you can enable the port capabilities.



2. To access a port's configuration, click the **Edit** link for the port. The **Edit Port Configuration** dialog box displays.



3. **Greeting Type** can be **None**, **Tone**, or **WavFile**. You can choose **WavFile** if the fax board is a TR1034, which supports that option (this option should only be configured if you have DTMF/Tone detection enabled)

   None – Fax call is answered without any greetings.
   Tone - Provide the sender a Bong when the fax call is answered.
   WavFile – Plays a wav file from a location stored on the server when the fax call is answered.

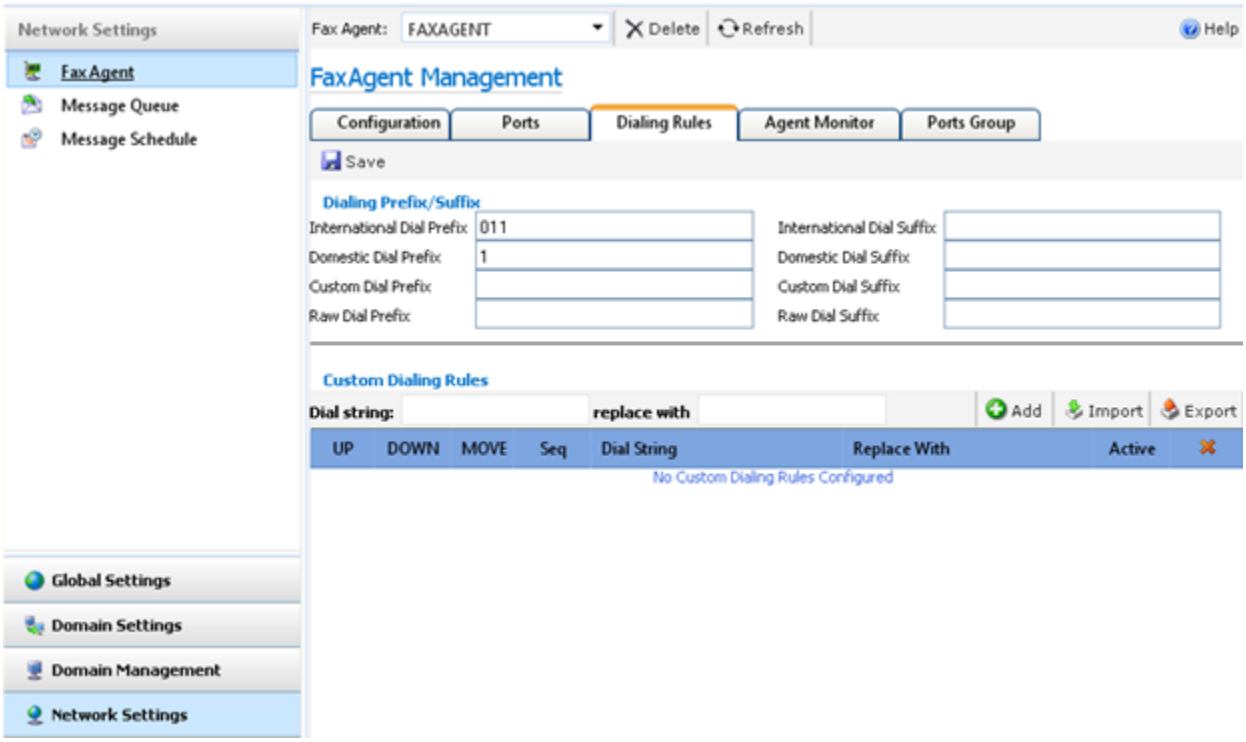
4. Make any desired changes and click **Apply** or **Apply All** to save these settings for the port.

For more information about other settings on this page refer the section **FaxAgent - Configurations** to **page 23**

Configuring Dialing Rules

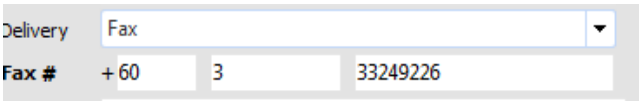
The dialing rules section lets you set prefixes and suffixes for international and domestic dialing and dial replacement strings. These dialing rules are only applicable to Fax address types and not Raw Fax address types.

To access this section, navigate to **Network Settings > Fax Agent > Dialing Rules**.



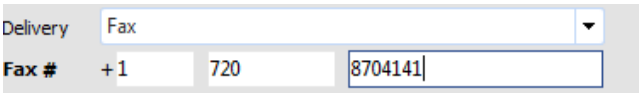
- **International Dial Prefix/Suffix –** Appends/Prepend an international Dial Prefix when EtherFAXfx detects a Country code other than the one specified on the Configuration Tab.
- **Domestic Dial Prefix/Suffix –** Appends/Prepend a domestic Dial Prefix when EtherFAXfx detects an area code other than the one specified on the Configuration Tab.
- **Raw Dial Prefix/Suffix -** This refers to raw fax, which bypasses the dial rules except for the **Raw Dial Prefix/Suffix** fields.

Example 1:



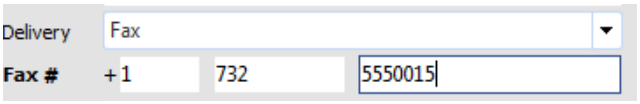
Country Code on Configuration tab: **1**
International Dial Prefix: **011**
EtherFAXfx Dial String: **01160333249226**
Explanation: **EtherFAXfx detects a different Country Code is being dialed and treats this as an international call**

Example 2:



Area Code on Configuration tab: **720**
Domestic Dial Prefix: **1**
EtherFAXfx Dial String: **8704141**
Explanation: **EtherFAXfx detects the same Area Code & Country Code, hence does not appends the dial string with "1" and remove the Area Code from the dial string**

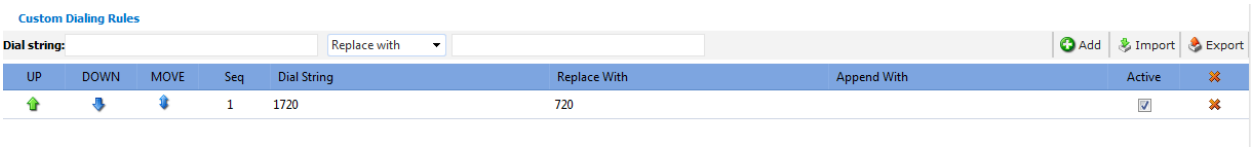
Example 3:



Area Code on Configuration tab: **720**
Domestic Dial Prefix: **1**
EtherFAXfx Dial String: **17325550015**
Explanation: **EtherFAXfx detects a different Area Code is being dialed and treats this as a long distance call.**

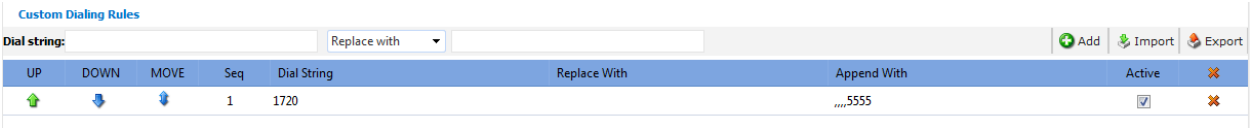
- **Custom Dialing Rules -** Custom Dialing Rules allow you to further manipulate the dial string by replacing or appending numbers to the dial string.

Example 1:



Dial String: **1720**
Replace With: **720**
Actual Dial String: **17208704141**
Final EtherFAXfx Dial String: **7208704141**

Example 2:



Dial String: **1720**
Append With: **,,,,5555**
Actual Dial String: **17208704141**
Final EtherFAXfx Dial String: **17208704141,,,,5555**

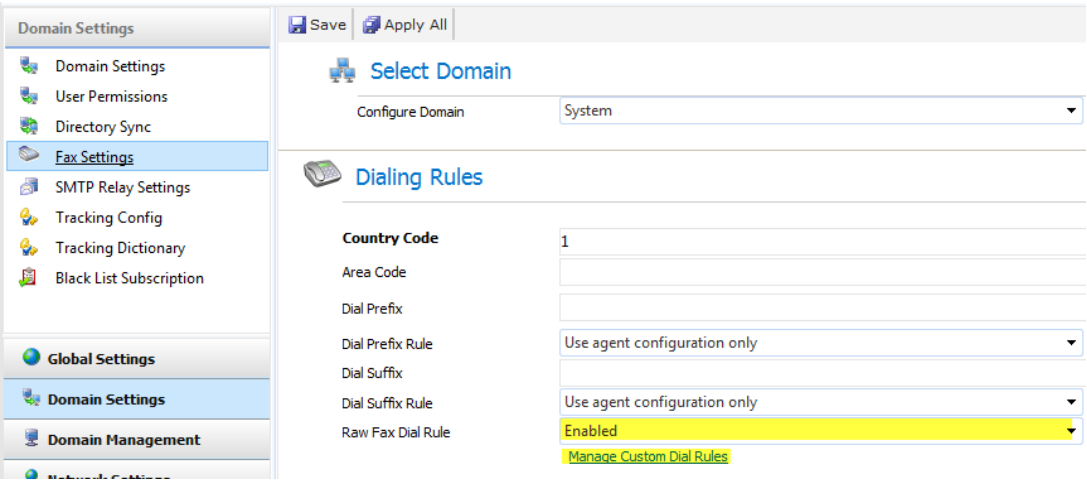
Note: *For SR140 and EtherFAXfx systems, never use* ***","(comma)*** *or* ***"w"(wait for Dial Tone)*** *in the dialing rules.*

Raw Fax Dialing Rules

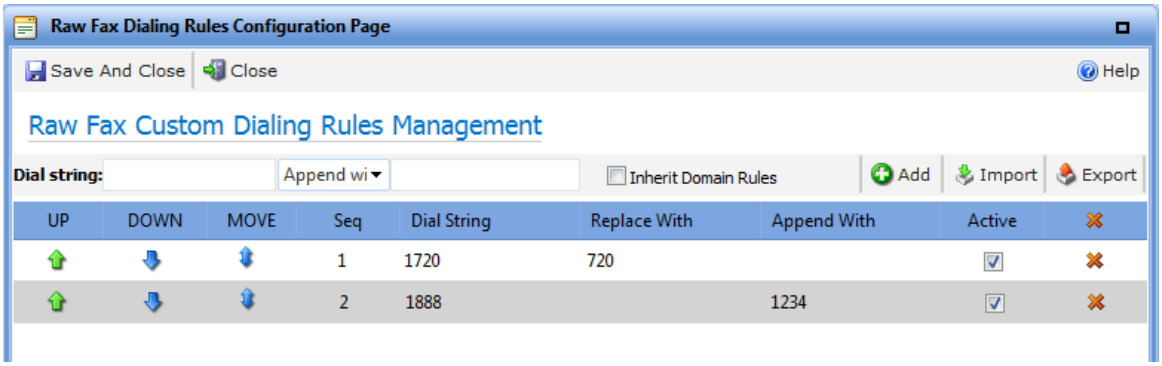
What we have discussed so far about Dialing Rules only applies to Fax addresses. These dialing rules do not apply to Raw Fax addresses. Raw Fax dialing rules are managed on the Domain Settings and are disabled by default.

Managing Raw Fax Dial Rules

1. Navigate to **Domain Settings > Fax Settings**
2. Scroll to the Dialing Rules section; change the Raw Fax Dial Rule to "Enabled" and click "Save" and "Apply All", then click on "**Manage Custom Dial Rules**".



3. On the new window, enter the dial string to manipulate and choose whether to "Append with" or "Replace with" the dial string with a value. When done, click on "**Save And Close"**.



Example 1:

1720 Replace with 720

Raw Fax Number: **17208704141**

Actual Dialed Number: **7208704141**

Example 2:

1888 Append with 1234

Raw Fax Number: **18885554444**

Actual Dialed Number: **188855544441234**

Note: The Raw Fax Dial Rules are managed per-domain; however child domains can inherit the parent domain's Raw Fax Dial Rule by checking the "**Inherit Domain Rules**" option.

Example: Raw Fax Dialing Rules is enabled and configured on SYSTEM domain. Administrator can go into each child domain underneath SYSTEM domain to enable Raw Fax Dialing Rule and check the **"Inherit Domain Rules"** option to inherit the Raw Fax Dial Rule for the child domains.

Configuring Port Grouping for Outbound Transmissions

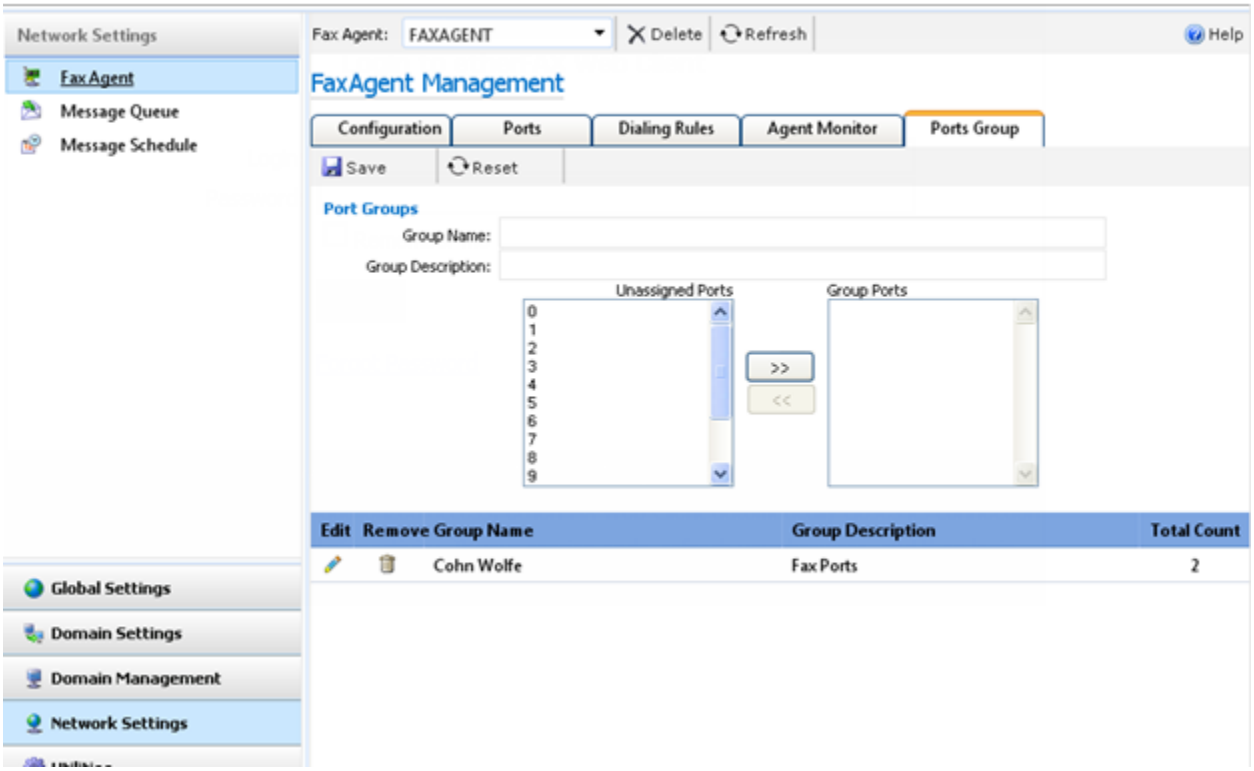
EtherFAXfx lets you group available send ports for outbound faxes. This feature is useful when there are certain department/domain users that require a dedicated number of ports to send faxes.

For example, your EtherFAXfx server has 4 ports available for sending and you want to dedicate 3 of the 4 available ports for users in Domain A. You can do so by grouping Ports 0, 1, and 2 into a port group and define an outbound rule for Domain A to use the port group to send faxes.

Create New Port Group

1. Navigate to **Network Settings > Fax Agent > Ports Group**.

2. Enter a name and description for the new group and use the **>>** and **<<** buttons to add or remove which of the currently unassigned ports belong to the new group.
3. Click **Save** to complete creation of the group.



Change Existing Port Group

Existing port groups are listed at the bottom of the **Ports Group** page.

Click the trash can icon to delete an existing group.

Click the pencil icon to edit an existing group. This populates the **Group Name** and **Group Description** fields and the **Group Ports** box. You can now make appropriate changes and then click **Save** to save changes to the group.

Setting Up Outbound Routing Rules

In order for faxes to be sent from EtherFAXfx 2007, at least one outbound routing rule must exist for each EtherFAXfx server. By default, EtherFAXfx automatically creates the first Outbound Routing rule

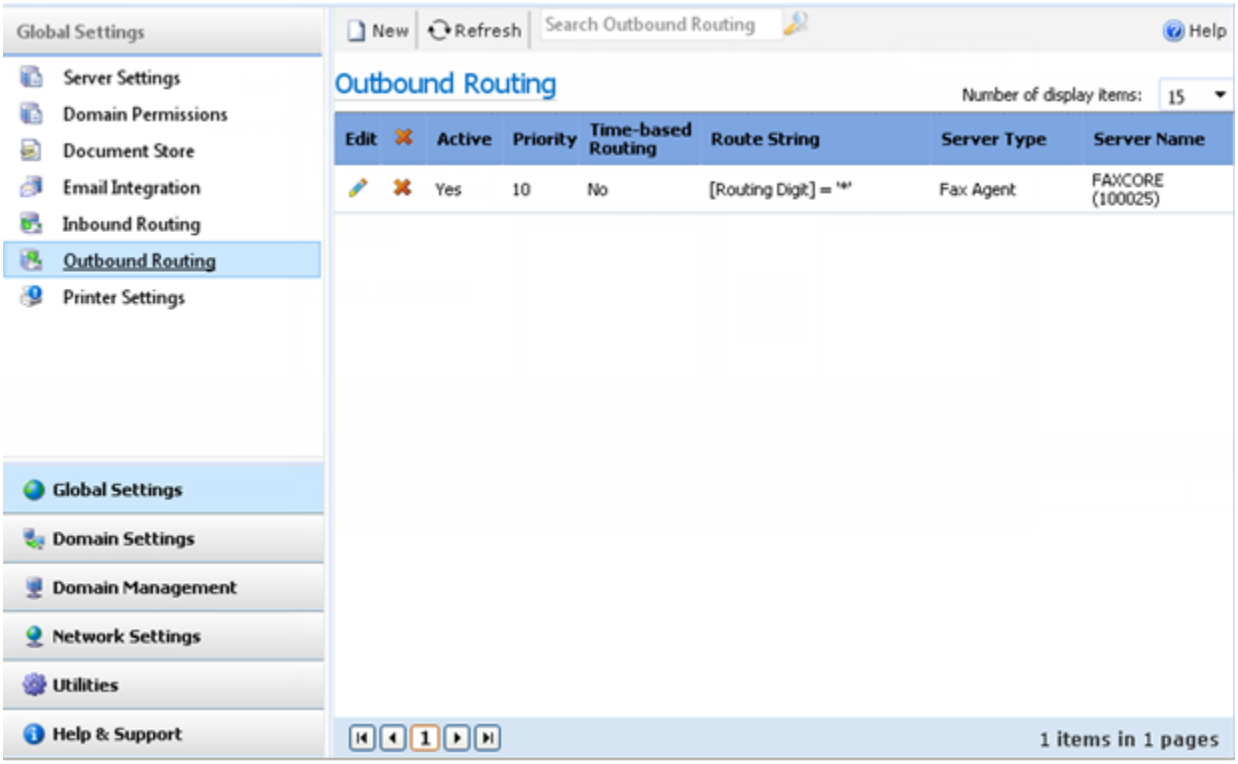
when a FaxAgent is registered that has a wildcard "*" rule that will use the FaxAgent to send all outbound faxes.

The outbound routes define which port groups or fax agent to use to send outbound faxes. Outbound routes can be configured for each domain and for individual users and can be based on dial string (digits). In addition, you can define group ports on each fax agent to dedicate those ports to be used by certain domain(s), user(s) or dial string (digits).

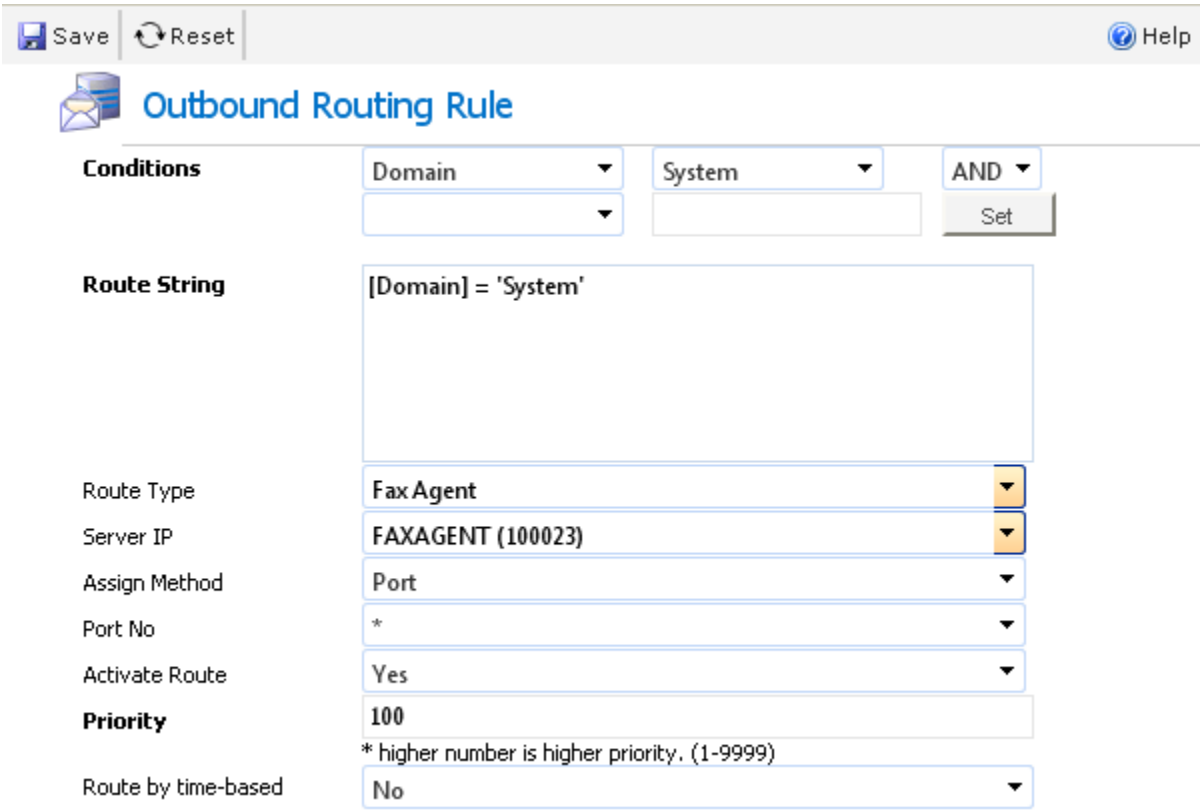
Outbound routes based on dial string are particularly useful for Least Cost Routing purposes.

To set up an outbound route for a domain, follow these steps:

1. Navigate to **Global Settings > Outbound Routing**.
2. Existing outbound routes are displayed. Note that you can edit or delete an existing outbound route on this screen.



3. To create a new outbound route, click **New**.
4. The **Outbound Routing Rule** dialog box displays.



5. After filling in the fields (see below for descriptions and explanations), click **Save** to save the setting for the new outbound route.

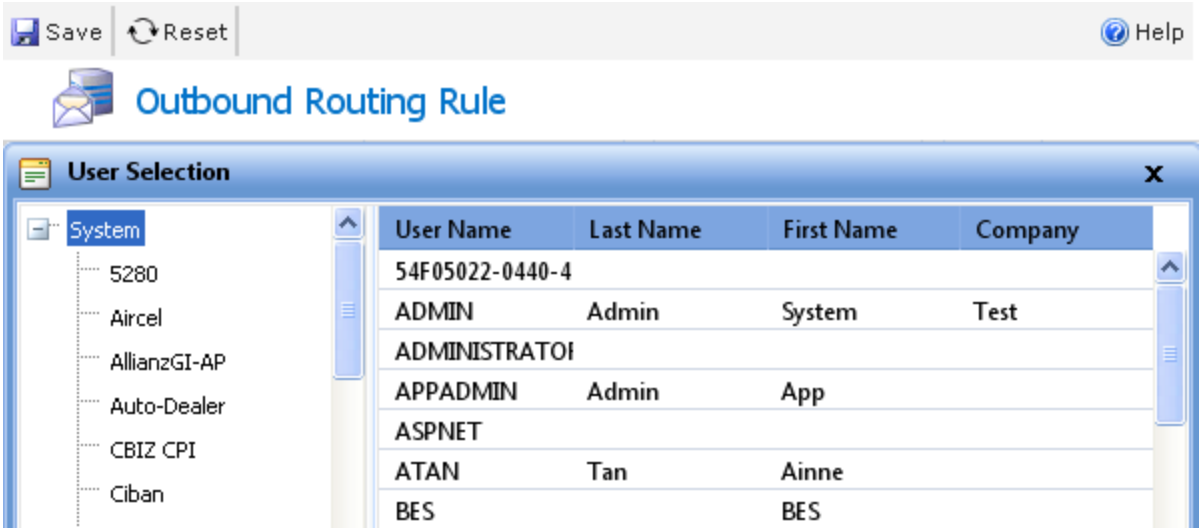
Conditions

Use the dropdowns to specify whether you want to configure the new outbound route for entire domain(s), routing digits, individual user(s), or a combination by using the provided **AND & OR** relationship operators.

If you select **Domain** in the left-hand dropdown, then all available domains are listed as a dropdown in the right-hand box.

If you select **Routing Digits** in the left-hand dropdown, then the right-hand box becomes a text input box in which you can enter the desired digits. Use this to make that number use the specified agent. You can use * as a wildcard – e.g., specifying `1734*` as the routing digits would force any outbound fax to Area Code 734 to use the agent.

If you select **User** in the left-hand dropdown, then click the right-hand box, a dialog box appears that lets you select a EtherFAXfx user.



Double-click the desired username and it appears in the right-hand box.

After completing the selection, click **Set** and the outbound route token string is automatically inserted in the text box. An example is shown in the screen shot above.

Route Type

This is a dropdown with two options, **Fax Agent** and **Fax Server**. If you select **Fax Agent**, the next field, **Server IP** is automatically populated. If you select **Fax Server**, you have to populate the **Server IP** field manually.

> **Note:** Currently, only the **Fax Agent** option is implemented.

Assign Method

The route can be assigned to a port or a port group.

If you select **Port**, then the next field becomes **Port No** and is a dropdown populated with the available ports. In the **Port No** dropdown, you can also select * to use any available port. The * option is the default.

If you select **Port Group**, then the next field becomes **Group** and is a dropdown populated with the available port groups.

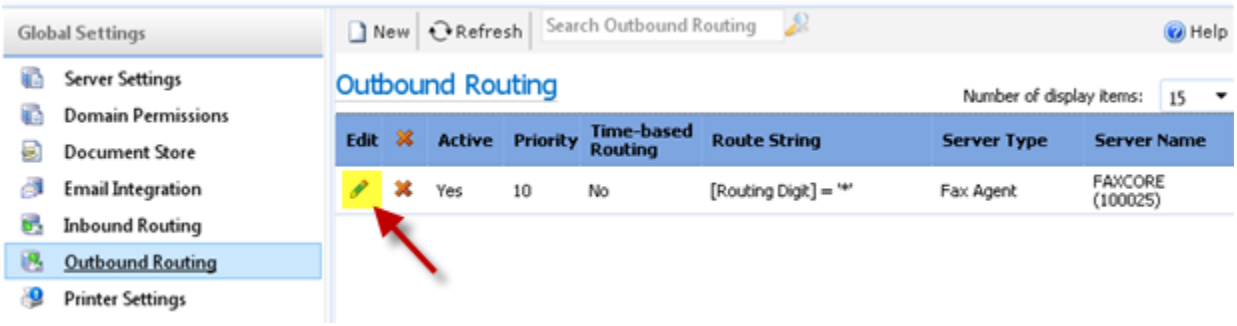
Priority

Enter a number higher than the default value of 100 to ensure that this rule is processed. If you have an existing route, you will want to increase the priority you are creating so that it takes precedence over the existing route, the higher the number, the higher the priority. (1-9999)

Change Existing Outbound Routing Rule

Navigate to **Global Settings > Outbound Routing**.

Existing outbound routing rules are listed on this page. You can click the **X** icon to delete a rule or the pencil icon to edit a rule. If you click the pencil icon, the **Outbound Routing Rule** dialog box (see below) displays.



Fax Agent

Introduction

This chapter describes the requirement and configuration guidelines for EtherFAXfx 2007 fax agent services.

Prerequisite information: Consult your service provider/PBX vendor beforehand for necessary dialing rules for International, Domestic & Local calls.

Service Registration

Upon installation, EtherFAXfx registers the initial FaxAgent automatically. FaxAgent registration is only required if you are installing a 2nd FaxAgent server or re-registering an existing FaxAgent due to change of server name, major version upgrade of Dialogic Brooktrout drivers or board module change.

To register the service, follow these steps (remember to back up the configuration file before making any changes):

1. Edit the fax agent configuration file located within the EtherFAXfx installation directory – e.g., `C:\EtherFAXfx\FaxAgent.exe.config` – with your favorite text editor or Notepad.

2. Locate the subsection

```
<appSettings>
   …
</appSettings>
```

Set the value key `Server` to the name of your EtherFAXfx server. If EtherFAXfx is installed on the local server – the same server where the service is running – leave the value as `localhost`.

3. If you're registering the EtherFAXfx server as a Remote Fax Agent, enter the EtherFAXfx server IP address or FQDN as the value.

   Example:

   ```
   <add key="Server" value="YourEtherFAXfxServerName">
   ```

4. Locate the subsection

   ```
   <applicationSettings>
      …
   </applicationSettings>
   ```

   Set the Web Services URL path to the name of your EtherFAXfx server – e.g.,

   `http:// YourEtherFAXfxServerName:2372/WebServices/wfFaxAgent.asmx`

   If EtherFAXfx server is installed on the local server – i.e., the same server where the service is running – leave the value as the default:
   `http://localhost:2372/WebServices/wfFaxAgent.asmx`

5. When completed, save the document. Start the service and use the Windows Services Management Console to change the FXC2.FaxAgent service startup type from Manual to Automatic.

When initialized, the FXC2.FaxAgent service maps and registers the host server's IP address and name into an agent pool with an associated identifier number.

Note: When either the IP address or hostname changes on the Fax Agent/Fax Board host server, the Fax Agent must be removed from the **EtherFAXfx Admin Panel > Network Settings > Fax Agent** page and reregistered to capture these changes. The corresponding outbound routing rule must also be recreated to associate with the updated identifier number.

Service Reregistration

Note: Re-registration of FaxAgent is only required if there is a change in port/channel numbers or module of the fax board. If the faxagent.exe.config is over-written by accident/unintentionally, simply populate the agent ID in the new faxagent.exe.config and restart the FXC2.FaxAgent service.

When re-registration of the FaxAgent is necessary , follow these steps:

1. Navigate to Network **Settings > Fax Agent > Configuration** and **DELETE** the required fax agent by selecting from the drop down list. Then stop the FXC2.FaxAgent service on the host server of the deleted agent.
2. Edit the fax agent configuration file located within the EtherFAXfx installation directory – e.g., `C:\EtherFAXfx\FaxAgent.exe.config` – with your favorite text editor or Notepad. (remember to back up the configuration file before making any changes)

3. Locate the subsection

```
<appSettings>
   …
</appSettings>
```

   Remove the numerical value from the Agent ID key.

   `Example:`

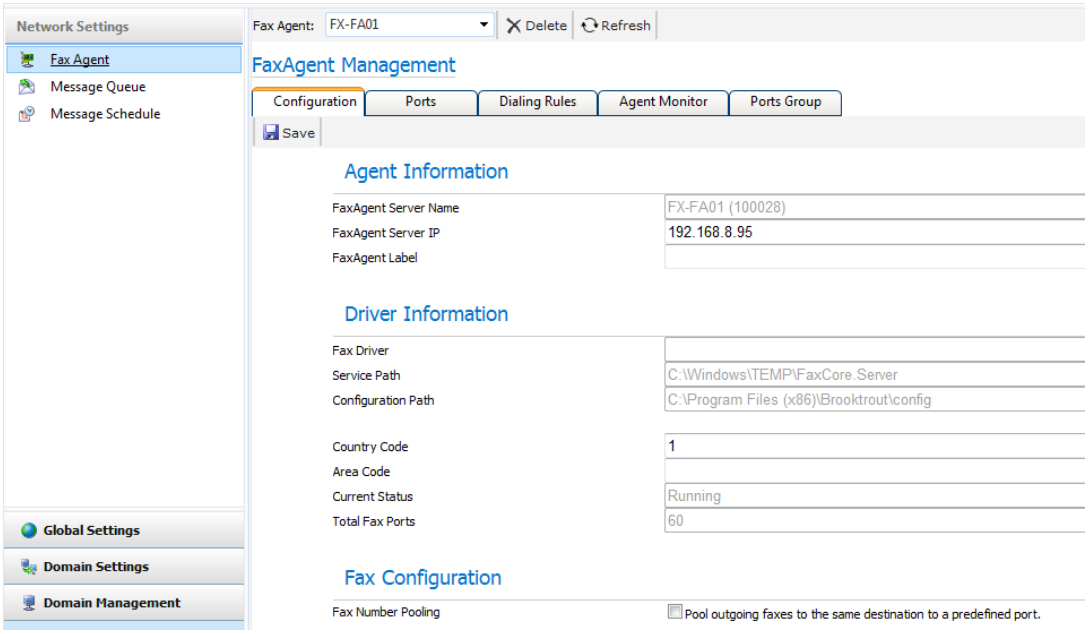
```
<add key=”AgentID” value=”” />
```

4. When completed, save the document and start the FXC2.FaxAgent service to automatically re-register itself into the agent pool together with a new identifier number.

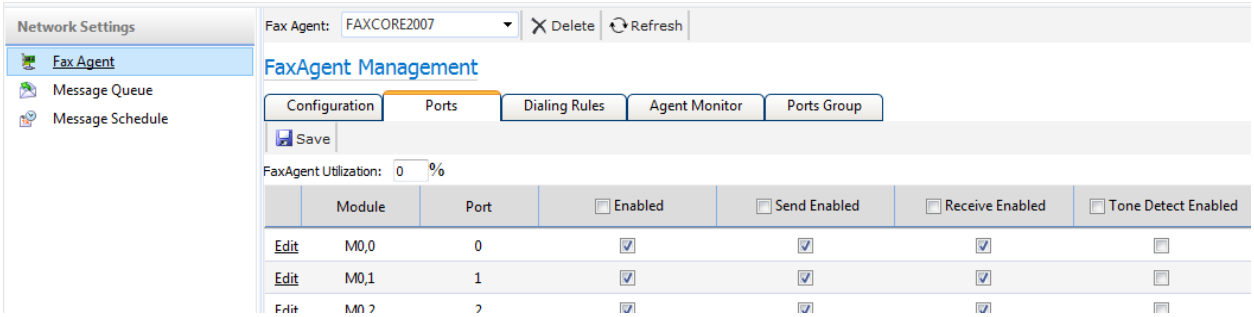
Configurations

1. Append a description to your fax agent by navigating to **Network Settings > Fax Agent > Configuration** and selecting the desired fax agent from the dropdown list at the top of the

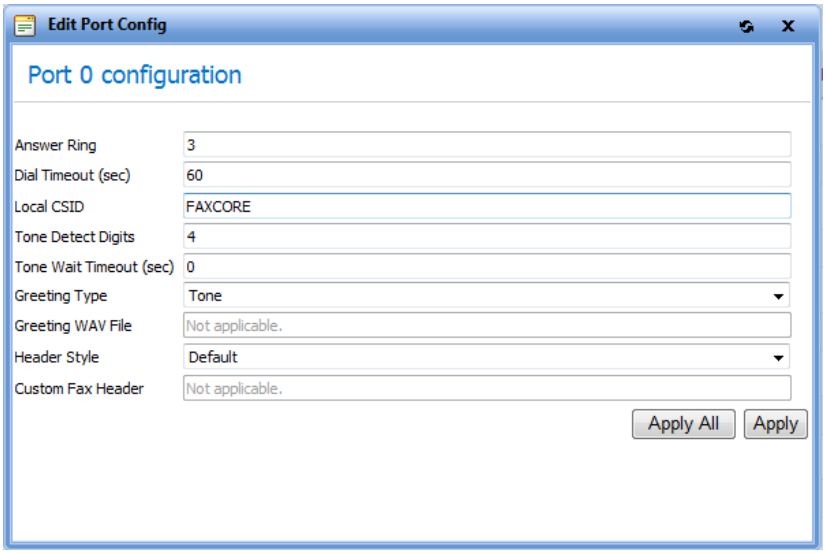
screen. Populate the corresponding **Fax Agent Label** field.



2. Populate the country and area code of the region and click the **Save** button to store and apply the changes. These refer to the location where the fax agent resides.
3. Enable "**Pool outgoing faxes to the same destination to a predefined port**" if you want all outbound faxes that are going to the same fax number to send through the same port to avoid multiple ports sending to the same number which might cause "Line Busy" errors.
4. Upon completing the registration process, based on the telephony circuit setup, navigate to **Network Setting > Fax Agent > Ports** and activate the send and receive permissions for each fax channel accordingly.



5. For analog fax boards that support capturing of dual-tone multi-frequency signals, activate the tone detect option to take advantage of dual-tone multi-frequency routing capabilities.
6. Edit other Port Configurations by clicking on the Edit link:


Edit Port Config
Port 0 configuration
Answer Ring
3
Dial Timeout (sec)
60
Local CSID
FAXCORE
Tone Detect Digits
4
Tone Wait Timeout (sec)
0
Greeting Type
Tone
Greeting WAV File
Not applicable.
Header Style
Default
Custom Fax Header
Not applicable.
Apply All
Apply

Parameter	Description
Answer Ring	Number of rings to allow before answering a fax call
Dial Timeout:	Allow in seconds before timing out an outbound fax
Local CSID	CSID to broadcast for the port (Domain & User settings overwrite the value here)
Tone Detect Digits	Number of digits to detect for DTMF collections
Tone Wait Timeout (sec)	Seconds to wait before timing out DTMF collections
Greeting Type	Plays a Tone, Wav or None when a fax call is answered
Greeting Wav File	If Wav is selected for Greeting Type, specify the location of the WAV file.
Header Style	Specify to use either the Default fax headers or Custom Fax headers.

Working with Users and Domains

EtherFAXfx Domains

Overview

EtherFAXfx domain structure is similar to Active Directory where administrators can create a forest with a parent domain and child domains underneath.

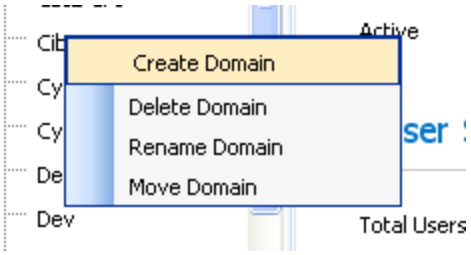
User settings and configurations are inherited from the Domain Settings and then Domain Settings are inherited from the Global Settings. When working with users and domains it is important to understand which settings takes precedence over the other, User or Domain or Server? Below is the order of precedence for settings and configurations:

- User level
- Domain level
- Server level

User settings will always take precedence over settings even though they are initially inherited from the Domain Settings when created. Once created, Administrators can change the user settings to overwrite the Domain settings.

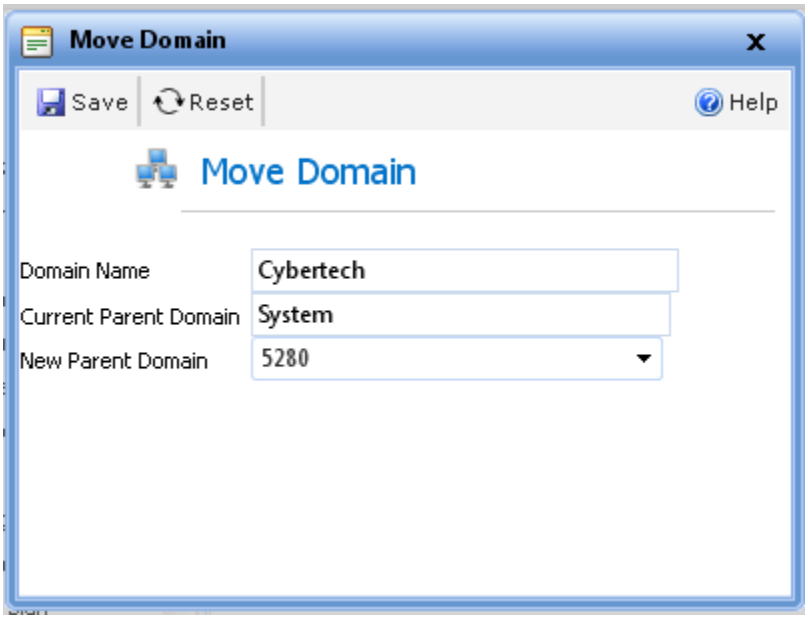
Creating a Domain (Optional)

1. This is an optional step because EtherFAXfx has a default Domain (SYSTEM) which you can use to store users in.
2. Navigate to **Domain Management > Domain Info**.
3. On the left, the existing domains are displayed as a hierarchy. Right-click on the name of a domain in the list to display the context menu and select **Create Domain** to create a new child domain beneath the name you clicked on.



Modifying or Deleting a Domain

1. Navigate to **Domain Management > Domain Info**.
2. On the left, the existing domains are displayed as a hierarchy. Right-click on the name of a domain in the list to display the context menu. You can delete the domain, rename it, or move it to another location in the hierarchy. Note that these three options are inactive (grayed) if you right-click on the System domain, because that is the root of the hierarchy and cannot be changed or moved.
3. A domain cannot be deleted if it has users in it.
4. If you choose the **Move Domain** option, a dialog box opens that lets you choose the new location in the hierarchy.



Creating Users

There are three ways to create new users in EtherFAXfx:

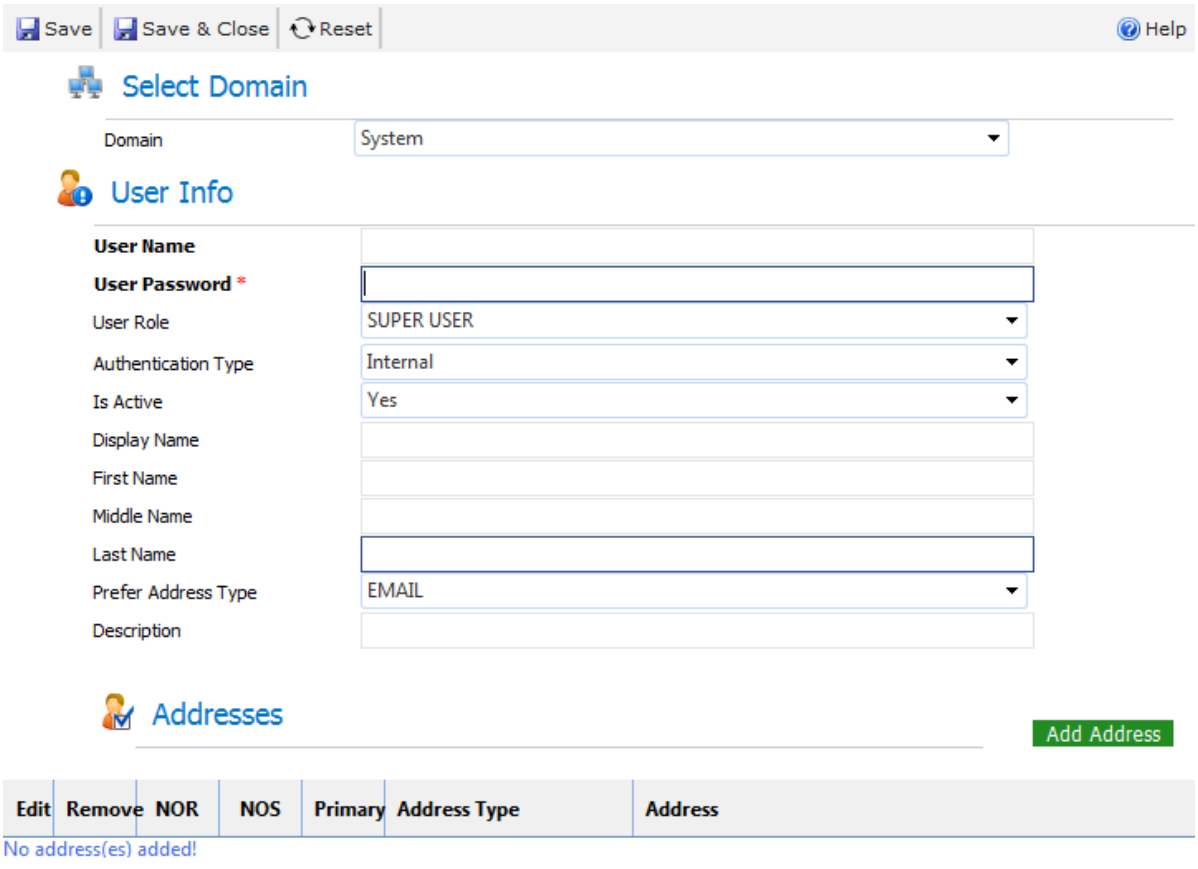
- Create a user manually
- Synchronize with a Microsoft Active Directory
- Import users from a file

Instructions for each of these are provided in the following sections.

Manually Create a User

To create a single new user manually, do the following:

1. Navigate to **Domain Management > Users**.
2. Click **New**. A dialog box appears for entering new user data.



3. Select the appropriate domain and enter the user's information.
   For **Authentication Type**, leave the setting to **Internal**. **External** authentication method will only work if the User was created via Domain Sync process described on **page 30 (Synchronize with Microsoft Active Directory)**
4. Click **Save**.
5. Error messages – e.g., a missing required field – appear at the top right-hand corner of the dialog box. If the creation is successful, the message New user is created is displayed in that position.

Synchronize with Microsoft Active Directory

EtherFAXfx lets you add new users from a Microsoft Active Directory. This synchronizing functionality also lets you update data for existing users.

Synchronizing with a Microsoft Active Directory is a one-way read-only process. During synchronization, EtherFAXfx reads the Active Directory and updates the EtherFAXfx database by adding, modifying, or deleting users. The Active Directory is not modified.

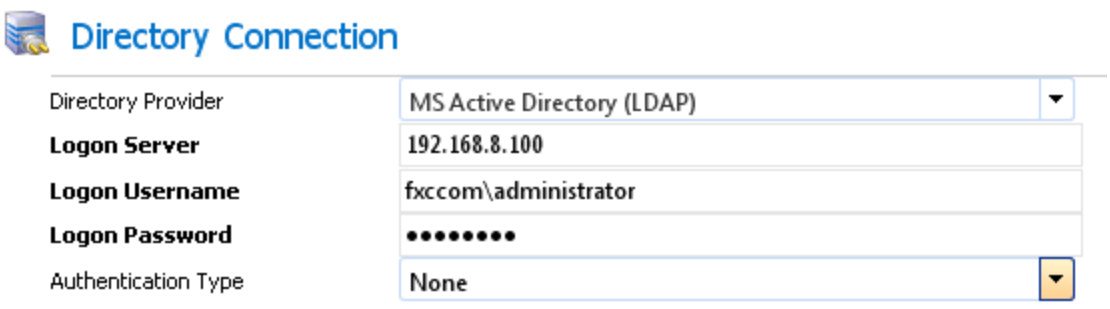
Directory Synchronization is set at the Domain level.

You can control which users are updated during synchronization and which ones are not. A EtherFAXfx domain can contain some users that are set to be synchronized with the Active Directory and other users that are set not to be synchronized. So native EtherFAXfx user accounts can exist without being affected by directory synchronization. For instructions concerning how to set individual user accounts so that they can be synchronized or not synchronized, see the section titled "Multiple Users" on **Page 44**.

Current EtherFAXfx users can be included or excluded from synchronization from the Domain Users page by selecting the users and executing the appropriate action (enable directory sync, disable directory sync) from the action drop list.

To synchronize EtherFAXfx user information with a Microsoft Active Directory, navigate to **Domain Setting > Directory Sync**. The resulting screen has several sections, which are discussed individually below.

Directory Connection



Provide required information. For **Logon Server**, provide either the IP address or a DNS resolvable name of the server where the Active Directory resides. **Logon Username** and **Logon Password** refer to logging on to that server.

Search Filter Settings

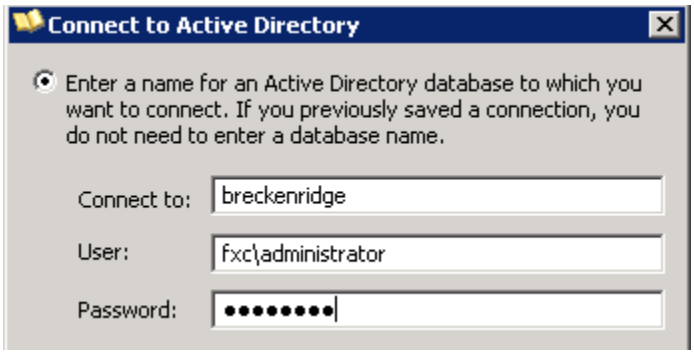
This step is optional and only used when you want to limit or filter the users that are being synchronized with EtherFAXfx. If you are synchronizing all users from your Active Directory, you can leave these fields blank.

A great tool from Microsoft to figure out what Search Filter strings to use – Active Directory Explorer

http://technet.microsoft.com/en-us/sysinternals/bb963907.aspx

To use Active Directory Explorer:

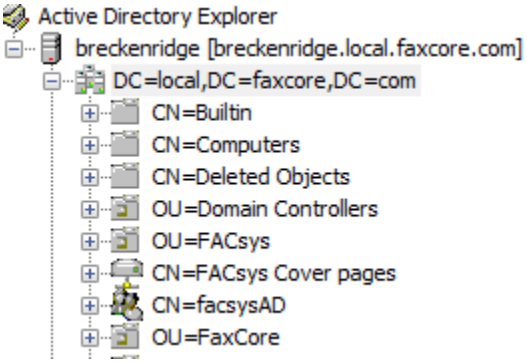
Run ADExplorer.exe:



Connect to: `Your Active Directory Servername/IP Address`
User: `User with Domain Admin rights`
Password: `Domain Admin User Password`

Expand the **server name -> domain name**

Example:



Domain

The FQDN of the Active Directory domain within which to search.

Example:

```
local.etherFAXfx.com
```

Organization Units

Limit the search to the specified organizational unit(s) under the domain. The organizational units can be specified as a simple unit name or as a fully qualified LDAP path. You can specify multiple organization unit filters in this box by separating them with semicolons.

Example 1:

```
EtherFAXfx
```

Sync users within the EtherFAXfx OU in Active Directory.

Example 2:

```
TestOU1,OU=EtherFAXfx
```

Sync users within the TestOU01 which is a sub-OU of EtherFAXfx

Example 3:

```
TestOU1,OU=EtherFAXfx;OU=EtherFAXfx
```

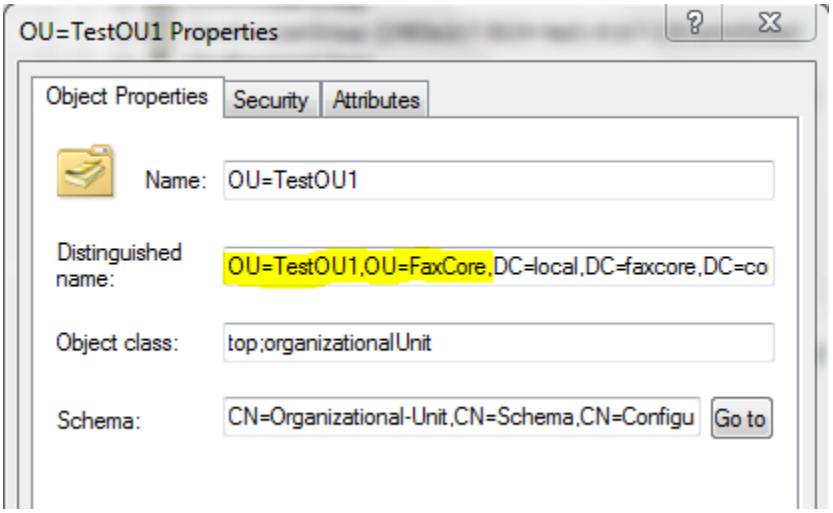
Sync users within TestOU01 which is a sub-OU of EtherFAXfx AND also sync users within EtherFAXfx OU.

Tips:

To use Active Directory Explorer to get the correct string for OU field:

Right click on the OU that you want to Sync from ADExplorer and click on Properties.

The “**Distiguished name”** field will give you the full string that you need. You will only need the values that has “OU=” for this example the string will read:
`OU=TestOU1,OU=EtherFAXfx`.



EtherFAXfx automatically adds the first OU=, hence you will only need to enter:
`TestOU1,OU=EtherFAXfx`

Security Groups

Limit the search to the specified security group(s).

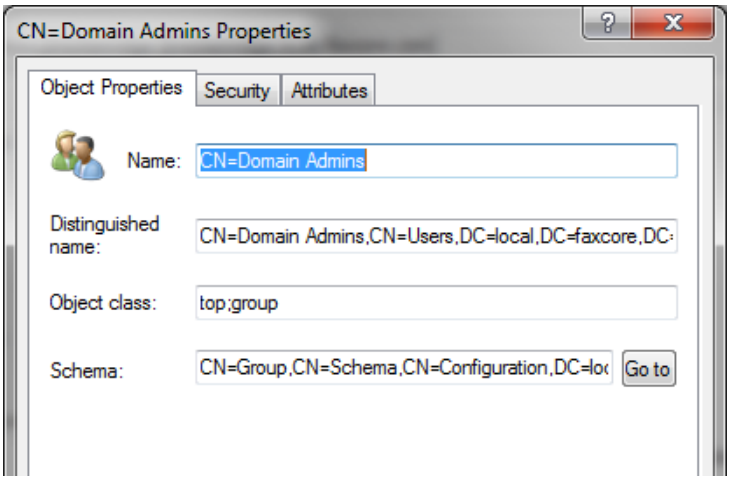
Example:

```
CN=Domain Admins,CN=Users,DC=local,DC=etherFAXfx,DC=com
```

Syncs users that is a member of “Domain Admins” security group

Tip:

To use Active Directory Explorer to get the correct string for Security Group field:



Right click on the Security Group and click Properties. Copy the “Distinguished name:” value and paste into the Security Group field in EtherFAXfx.

Custom Filter

Active Directory attribute(s) by which to filter the results. This can comprise of a number of LDAP queries.

Example1:

```
memberof=CN=Domain Admins,CN=Users,DC=local,DC=etherFAXfx,DC=com
```

Sync users that is a member of Domain Admins

Example2:

```
CN=Administrator
```

Sync only user: Administrator

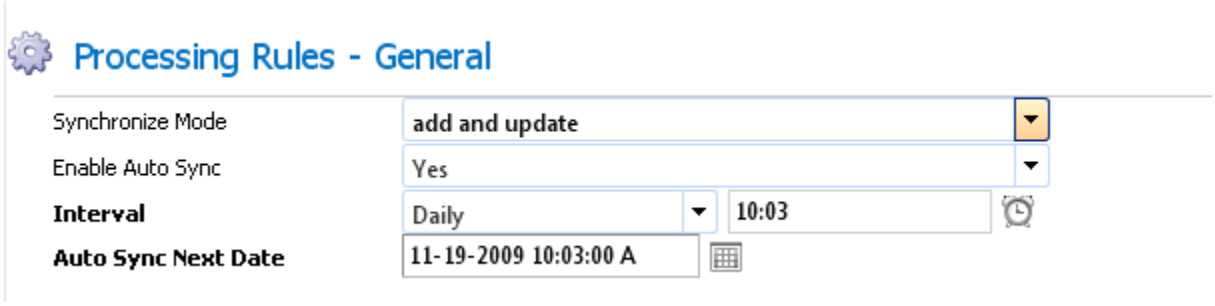
Properties to Read

Additional Active Directory properties by which to filter.

Max Users to Read

Total number of user to synchronize.

General

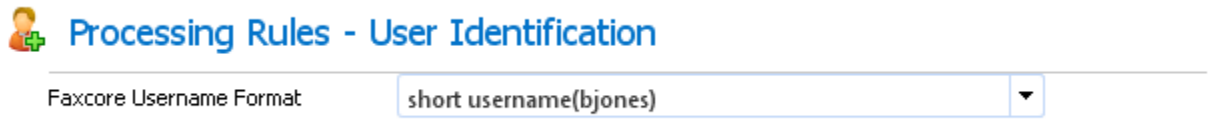


Synchronize Mode is a dropdown with three options:

- **add only**
  Only add any new users found during synchronization.
- **update only**
  Update existing users with changes found during synchronization but do nothing else.
- **add and update**
  Add new users and update existing users.

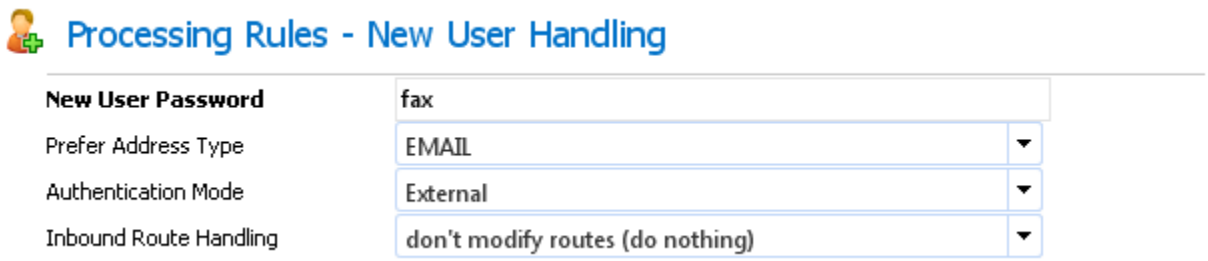
Enable Auto Sync is a dropdown with two options, **Yes** and **No**. If you choose **Yes**, the additional boxes shown above appear, letting you set up the frequency, time, and start date for the auto sync operation.

User Identification



Specifies how the username is displayed. Options are **short username** (e.g., bjones) or **full username** (e.g., bjones@etherFAXfx.com).

New User Handling



New User Password

This is a default password, available if authentication doesn't work.

Prefer Address Type

This is the Primary address to send successful/failed notifications. This should be set to EMAIL if users will be sending faxes via Outlook or email client because the email address is used to authenticate the user.

Preferred address (email, fax, etc.)

Authentication Mode

External – Users will be authenticated through Active Directory login credentials.

Internal- Users will be authenticated against EtherFAXfx database and the "New User Password" will be the user's default password.

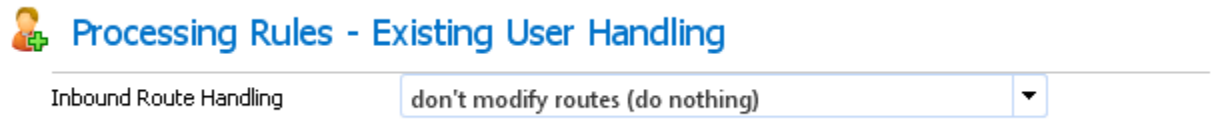
Inbound Route Handling

This is a dropdown with two options:

- **don't modify routes**
  Use existing routes.

- **add new route**
  When a new user is added, use the fax number specified for that user in the Active Directory.

Existing User Handling



This is a dropdown with two options:

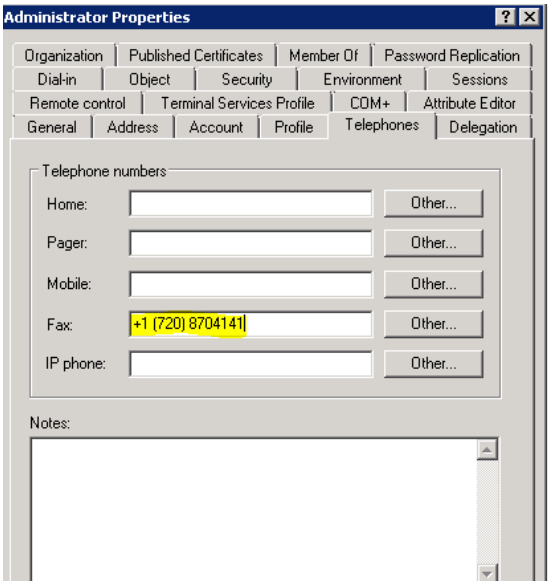
- **don't modify routes**
  Use existing routes.
- **update user route**
  Update user's route from the Active Directory.

Inbound Route Handling

Routing digits custom attribute

For use in case no fax number is provided in the Active Directory.

By default EtherFAXfx synchronizes the user's Inbound Route with the Fax number (facsimiletelephonenumber) attribute/ field:



If the Fax number is not located on this field, you can specify a different attribute to use to create Inbound Routes:

Example:

`Pager`

This creates an inbound route for the users with the numbers in the Pager field.

Prefix to append to new fax routes, Max length for routing digits

Values for these fields are dependent on the specifics of your telephone system and location.

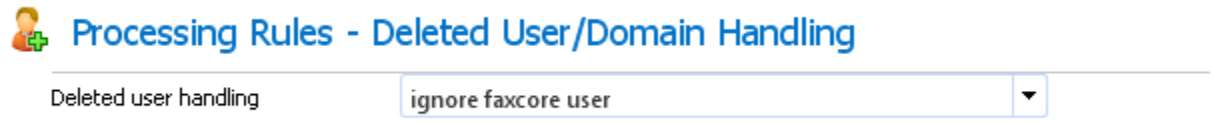
Example:

Setting **Prefix to append to new fax routes** to * and **Max Length** to 4 would means create Inbound Routing rules with the last 4 digits of the value in the Fax field in Active Directory and include a wildcard.

Fax number in Active Directory: **+1 (720) 8704141**

Inbound Routing rule created: ***4141**

Deleted User/Domain Handling

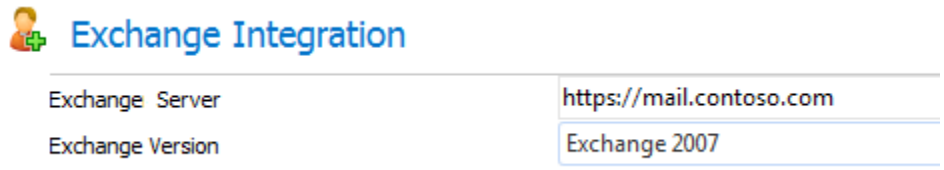


Specifies what to do if a EtherFAXfx user has been deleted from the Active Directory. This is a dropdown with three options:

- **ignore etherFAXfx user**
  Take no action for this user.
- **set etherFAXfx user inactive**
  Don't delete the EtherFAXfx user. Instead set this user to inactive status.
- **delete etherFAXfx user**
  Delete the user from EtherFAXfx.

Exchange Integration

This section allows users that are synchronized from Active Directory to use their Personal address book from Microsoft Exchange server.



Exchange Server

Enter the URL of the Exchange server.

Exchange Version

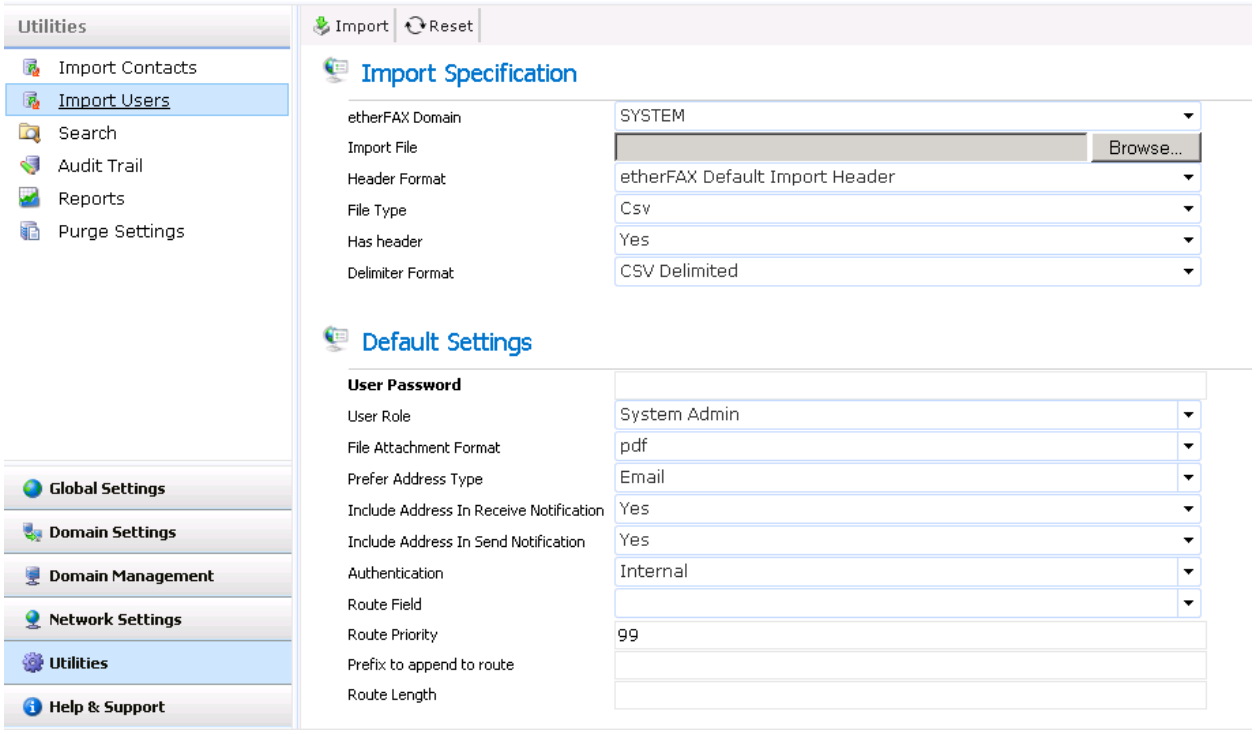
This is a dropdown. The choices are **Exchange 2007** or **Exchange 2003 and below**.

Note: If you are running Exchange 2010, select Exchange 2007 from the dropdown.

Import Users from a File

You can import users into EtherFAXfx from a file.

Navigate to **Utilities > Import Users**.



Import Specification

EtherFAXfx Domain

Specify the domain into which the users are to be imported.

Import File

Click **Browse** to find the file containing the data to be imported.

Header Format, File Type, Has header Format

Use the **Browse** button next to the **Import File** input field to specify the file. For the format of the file, you can use the default format defined by EtherFAXfx, or you can specify your own format. In the **Header Format** input field, select **EtherFAXfx Default Import Header** to use the EtherFAXfx default, or **Custom Header** to use your own format. If you select **Custom Header**, a new input field, **Control File**, appears with a **Browse** button that lets you point to the file in which you have defined your custom layout.

The EtherFAXfx default layout header format specifies that the input fields are to be listed in the following order:

```
UserName, DisplayName, FirstName, MiddleName, LastName, CompanyName, Email,
Fax, Http, Ftp, File, Printer, Mobile, FaxRaw, Phone, Route, Desc, Password,
Role, FileFormat, PreferAddressType, ReceiveNotify, SendNotify,
Authentication, RouteField, RoutePriority, RoutePrefix, RouteLength,
LocalCSID, LocalCallerID
```

Where the fields have the following meanings:

Data Field Name	Description	Example
UserName	User login name.	`johndoe`
DisplayName	User's display name.	`John Milano Doe`
FirstName	User's first name.	`John`
MiddleName	User's middle name.	`Milano`
LastName	User's last name.	`Doe`
CompanyName	User's company name.	`Contoso, Inc.`
Email	User's email address. Add FMT=PDF/TIF after email address to specify the file format to receive attachments in email. A space is required	`jdoe@contoso.com FMT=PDF`

Data Field Name	Description	Example
	after email address.	
Fax	User's fax number.	+1-720-870-4141
Http	User's http address. Add FMT=PDF/TIF after http address to specify the file format to post file via HTTP. A space is required after HTTP address.	http://webapp.contoso.com FMT=PDF
Ftp	User's ftp address. Add FMT=PDF/TIF after FTP address to specify the file format to post file via FTP. A space is required after FTP address.	ftp://ftp.contoso.com FMT=PDF
File	User's file path/address. Add FMT=PDF/TIF after file path to specify the file format to save file to path. A space is required after file path. Address can be a local path on the EtherFAXfx Server or UNC Path. See example.	C:\User\administrator\ FMT=PDF \\pc_name\path\Usn=username;Dmn=domain;pwd=password FMT=PDF
Printer	User's network printer.	Xerox Printer
Mobile	User's mobile number.	1-720-870-4141
FaxRaw	User's raw fax number.	17028074141
Phone	User's phone number.	1-720-870-2900
Route	User's Inbound Route digits	4141
Desc	Simple description of the User.	John Doe from Accounting
Password	User's Password	password
Role	User's Privilege level/role 1 = System Admin 2 = Domain Admin 3 = Super Users 4 = Standard Users Use only single digit (1,2,3, or 4) in this column	4
FileFormat	Notification Attachment File Format PDF/TIF	PDF

PreferAddressType	User's Preferred Address Type. Acceptable values are Email, Fax, HTTP, FTP, File, Printer. Fax.Raw	EMAIL
ReceiveNotify	Specify whether to notify on receive TRUE / FALSE	TRUE
SendNotify	Specify whether to notify on send TRUE / FALSE	TRUE
Authentication	User is authenticated internally or externally. INTERNAL / EXTERNAL	INTERNAL
RouteField	Which column to use to create Inbound Route for the User	FAX
RoutePriority	Priority of User 's Inbound Route	100
RoutePrefix	Additional digits to append to the Inbound Route.	9
RouteLength	Length in digits to create Inbound Route	4
LocalCSID	User's CSID to broadcast when sending a fax	Contoso, Inc.
LocalCallerID	User's CallerID to broadcast when sending a fax	1-555-444-3333

Suppose you create your own very simple control file that looks like this:

```
UserName, Email, DisplayName
```

Your import file might then look something like this:

```
UserName, Email, DisplayName
etherFAXfx01, jsmith@clientcompany1.com, John Smith
etherFAXfx01, hbrown@clientcompany1.com, Helen Brown
etherFAXfx02, mjones@clientcompany2.com, Martha Jones
```

Note the first row, which contains the names of the fields. This is optional. You can include it for your own guidance when entering data. However, if you do include that header row, be sure to select **Yes** in the **Has header** input field, so that EtherFAXfx will ignore that first row.

Default Settings

This section allows Administrators to configure the default settings for the Imported Users if these settings are not available or not specified in the CSV file used for the import. If the setting has been specified on the CSV, the **CSV settings will take precedence**.

User Password (required field – for users that does not have a password specified in CSV file)

Default user password.

User Role

User's privilege level.

File Attachment Format

Default for attached files (PDF or TIF).

Prefer Address Type

Preferred contact method (email, fax, etc.).

Authentication

Internal – This should be configured to internal only because External authentication only works with users that are synchronized from Active Directory.

Remaining Fields

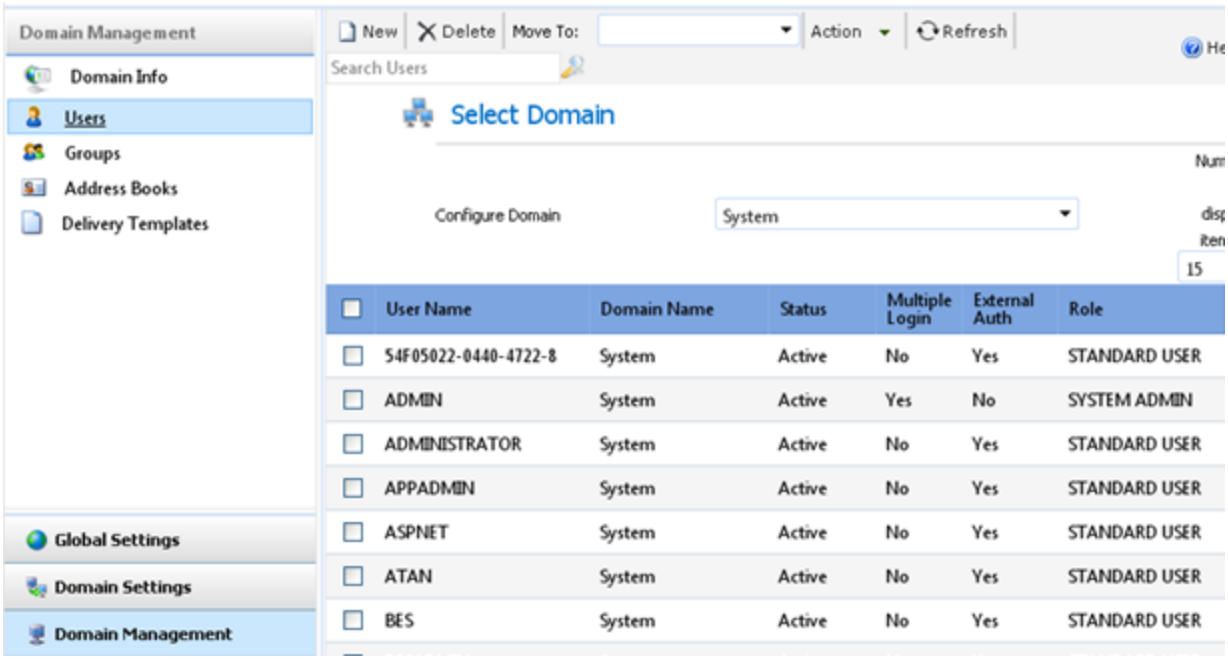
For an explanation of the remaining fields, see the section titled "Inbound Route Handling" on page 36.

Modifying Users

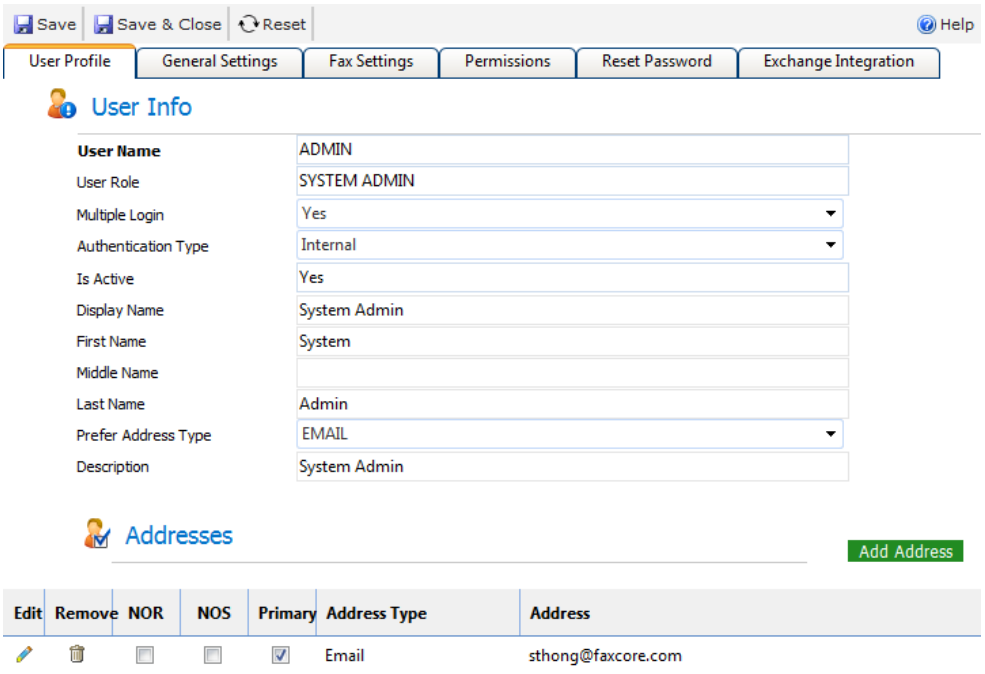
Single User

To change information for a single existing user, follow these steps:

1. Navigate to **Domain Management > Users.**
2. If necessary, use the search box at the top, labeled **Search Users**, to find the desired user. Note: The search field only searches the selected domain only. For more extensive search, navigate to **Utilities > Search > Domain Users**



3. Double-click the user name. The user dialog box opens.



4. Change information as appropriate and click **Save**.

Multiple Users

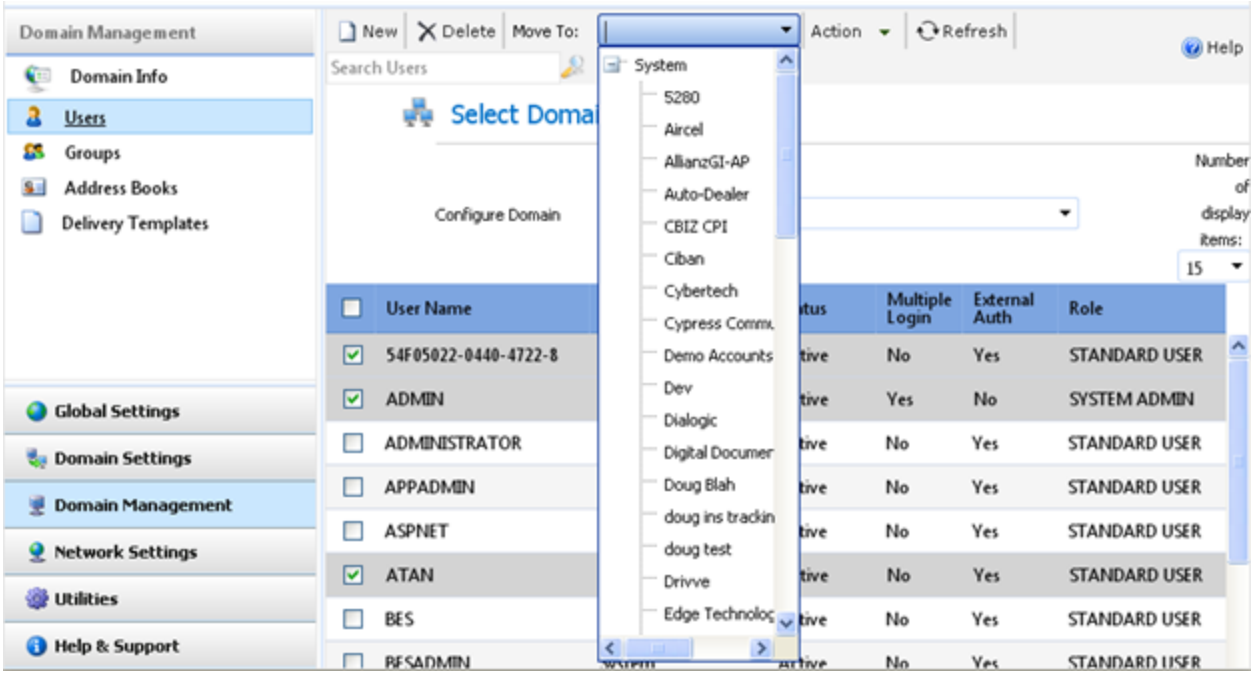
There are certain changes that you can perform on multiple users at one time:

- Move user(s) to a different domain
- Set to active/inactive
- Reset password (applies to internal Authentication only. This does not reset the Active Directory password)
- Set privilege level (standard user, super user, administrator)
- Enable external/internal authentication.

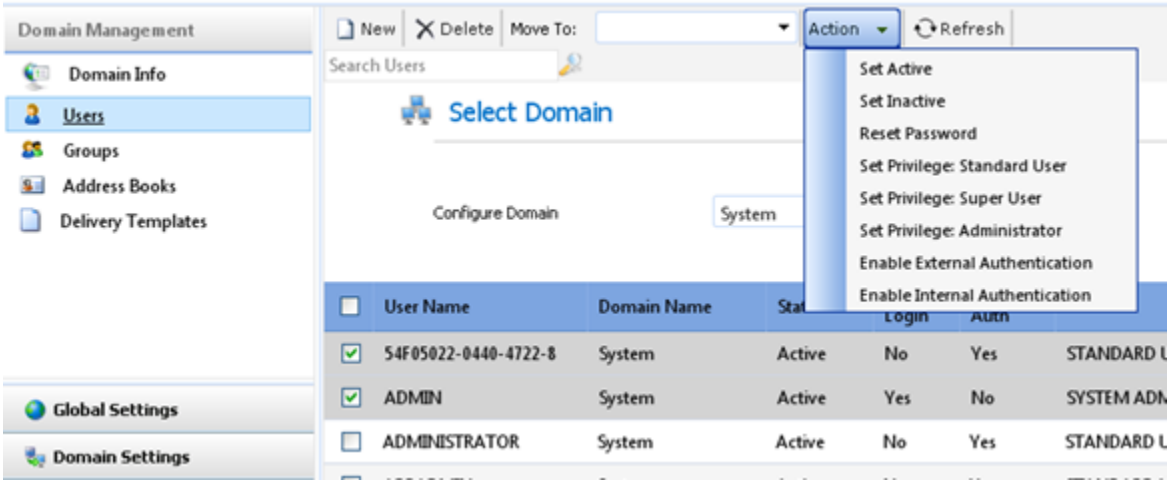
Note: If you enable external authentication for a user, that user's data may be updated if you synchronize the EtherFAXfx user database with a Microsoft Active Directory. To avoid that possibility, enable internal authentication for that user.

To perform any of these changes for multiple users, do the following:

1. Navigate to **Domain Management > Users**.
2. Check the box next to the user(s) you want to change. Note that you can check multiple boxes on one page or all of them at one time by using the check box next to **User Name** in the header row. However, if you change to a different group of names by using the arrows or page numbers at the bottom of the screen, the boxes you have checked will become unchecked.
3. To move the checked user(s) to a different domain, use the **Move To:** dropdown at the top of the screen.



4. To apply any of the other actions listed above to the checked user(s), use the **Action** dropdown at the top of the screen.



User/Domain Permissions

EtherFAXfx Permissions Hierarchy

Permissions are set at the domain level for the entire domain. The system administrator can define domain level permissions that in many cases override user level permission set up by domain administrators. For example, the system administrator can specify that a particular domain is not allowed to send international faxes.

Even if the domain administrator specifies that the users can send international faxes, the setting will be overridden by the domain level setting.

Configuring User Permissions

To set permissions for all users in a given domain, navigate to **Domain Settings > User Permissions** and select the desired domain from the domain dropdown.

Set permissions as desired and click **Save** to save those settings.

Specific Settings

Send Permissions > Allow http sending
Allow users in domain to send HTTP posts to URL. (example: Post to a Sharepoint Document library)

Send Permissions > Allow ftp sending
Allow users in domain to upload file to FTP folder/locations.

Send Permissions > Allow file sending
Allow users in domain to upload file to folder.

Send Permissions > Allow printer sending
Allow users in domain to print to printer.

Document Permissions > Allow Document Upload
Allow users in domain to upload and share documents.

Document Permissions > Document Quota
Allow users in domain to upload documents up to the specified maximum size.

Notifications Permissions

In order for users to receive email notifications, you must first enable the appropriate user permissions. This is done in the **Notifications Permissions** section of the page. The permissions in that section have the following meanings:

Allow Notify When Message Receive Success
Lets EtherFAXfx notify the users upon receive success.

Allow Notify When Message Receive Fail
Lets EtherFAXfx notify the users upon receive fail.

Allow Notify When Message Send Success
Lets EtherFAXfx notify the users upon send success.

Allow Notify When Message Send Fail
Lets EtherFAXfx notify the users upon send fail.

Note: *By default, these settings are set to "**Yes**"*

Working with Faxes & Messages

Working with Inbound Faxes

Routing Inbound Faxes to Users

Inbound routing rules tell EtherFAXfx how to route inbound faxes to users. When a fax is received, EtherFAXfx searches for an appropriate inbound routing rule to determine where to route the fax to. This means that EtherFAXfx checks to see if the fax properties match the criteria specified in an inbound routing rule. If they do match, then the fax is routed to the user or group defined in the rule.

Inbound Routing Methods

Inbound faxes can be routed based on several properties of the received fax, including the following:

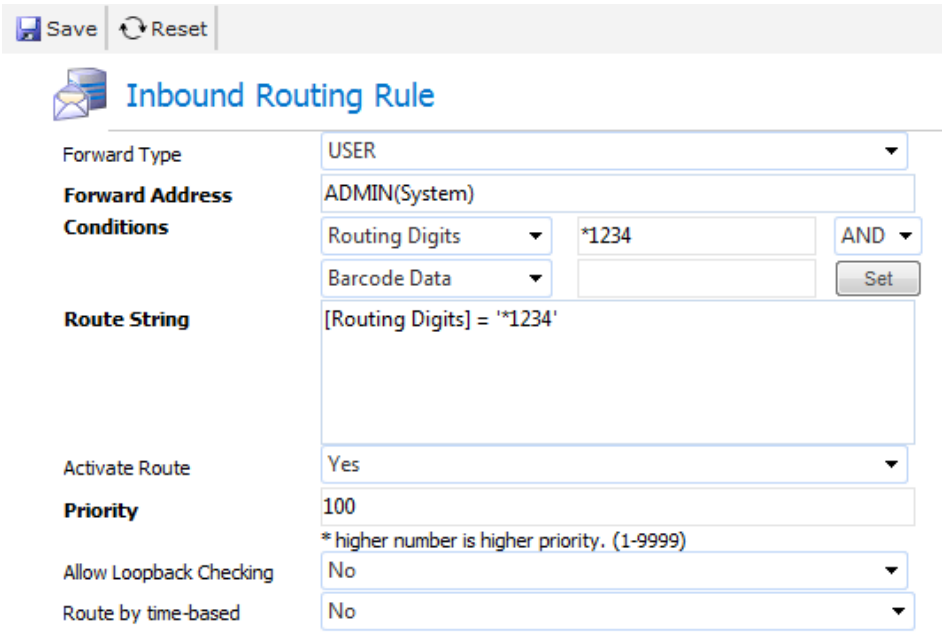
- Barcode data (Optional Module)
- Fax port number
- Routing digits
- Remote caller ID
- Remote CSID
- Server name

Note: Some of the above routing methods may not be available to route on based on telco configurations

Create New Inbound Routing Rule

To create a new inbound route:

1. Navigate to **Global Settings > Inbound Routing**.
2. Click **New**. The **Inbound Routing Rule** dialog box opens.



3. Use the **Forward Type** dropdown to specify whether this rule applies to a single user or a group.
4. Click in the **Forward Address** box to bring up a separate dialog box for selecting a user or group address.
5. Use the dropdowns in the **Conditions** section to create the rule, and then click **Set**. The **Route String** box is automatically populated, as in the example screen shot above.
6. When all desired properties have been set, click **Save**.

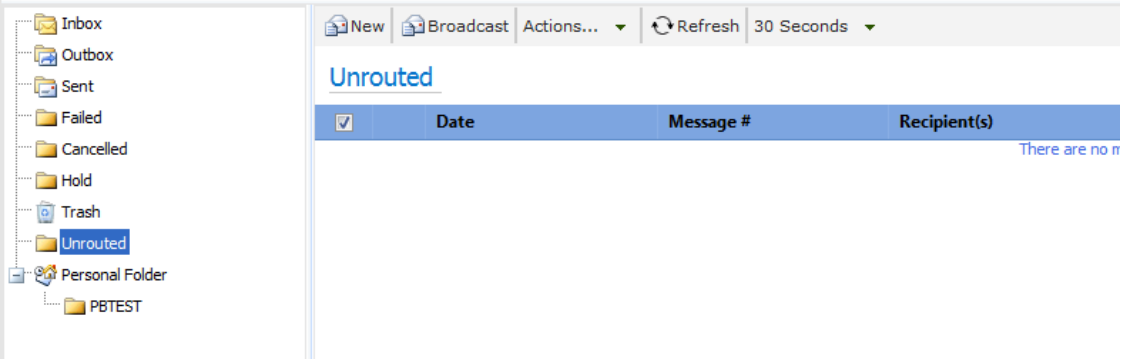
Edit Existing Inbound Routing Rule

1. Navigate to **Global Settings > Inbound Routing**.
2. Existing inbound routing rules are listed on this page. Use the **X** icon to delete an existing rule or the pencil icon to edit it.

Managing Un-routed Fax

Faxes that do not match an inbound routing rule are considered un-routed fax. These faxes are by default routed to a system user called: **SYS-UNROUTED**. This system user's main purpose is to store un-routed fax.

The inbox of SYS-UNROUTED user can be displayed as a system folder in the User Interface called "**Unrouted**"

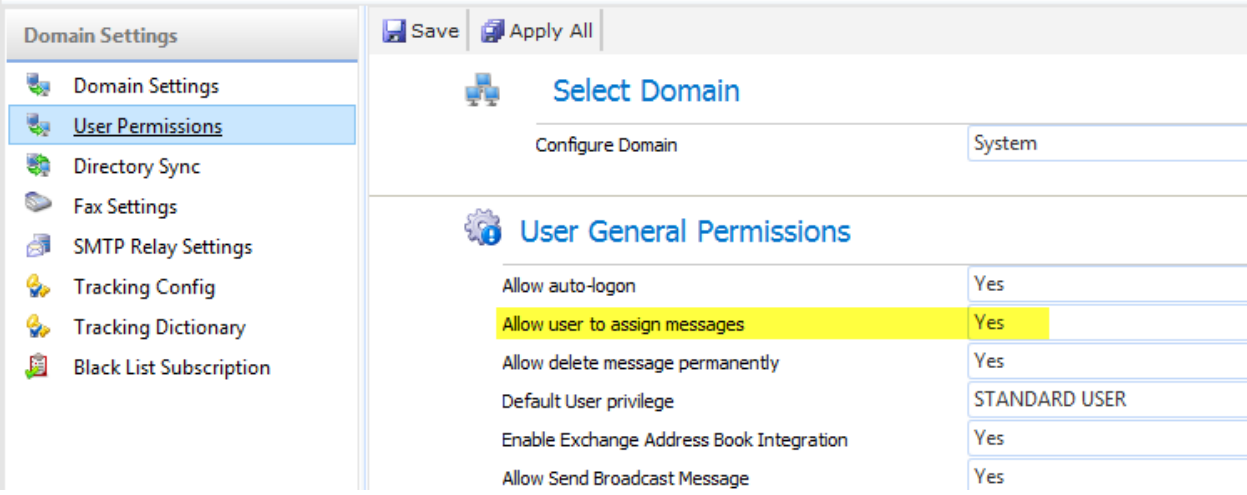


The **Unrouted** folder is NOT VISIBLE to users by default. To enable users to view/assign messages from this folder, administrator must enable the permission of the user(s) to "**Allow user to Assign Messages**".

To allow ALL USERS in a specific domain to Assign Messages / view the "Unrouted" folder,

Navigate to **Domain Settings > User Permissions** and scroll to **User General Permissions**

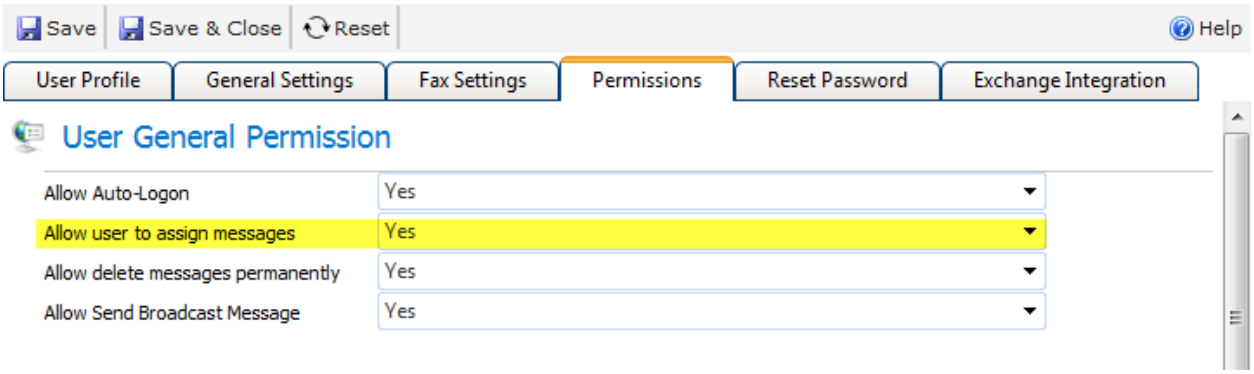
Set **"Allow user to assign messages"** to **"Yes"**



Click "**Save**" and "**Apply All**". All users within the selected Domain will now have access to the "**Unrouted**" folder.

To allow specific users to Assign Messages / view the "Unrouted" folder,

1. Navigate to Domain Management > Users and locate the user to allow access to the "**Unrouted**" folder.
2. Double click on the user to edit the user settings.
3. Navigate to the Permissions tab and set "**Allow user to assign messages**" to "**Yes**".



4. Click "**Save & Close**" when done. The user will now have access to the "**Unrouted**" folder when he/she log in to the EtherFAXfx Web User Interface.

Printing Faxes with Network Printers

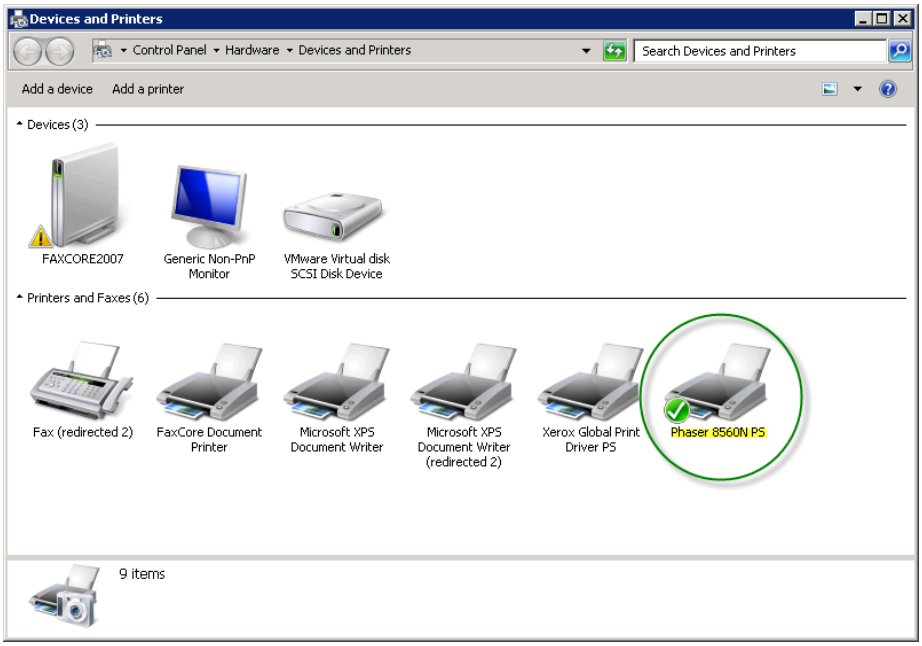
In many occasions, faxes need to be printed out as a hard-copy document. EtherFAXfx provides users with the option to print faxes manually from the User Interface or setup a Network Printer in their User Profile to print faxes automatically.

Before Network Printers are made available to users in EtherFAXfx, Administrators must first add the network printers to the system. This section describes the steps to add a network printer to the EtherFAXfx server.

Setting up Network Printer

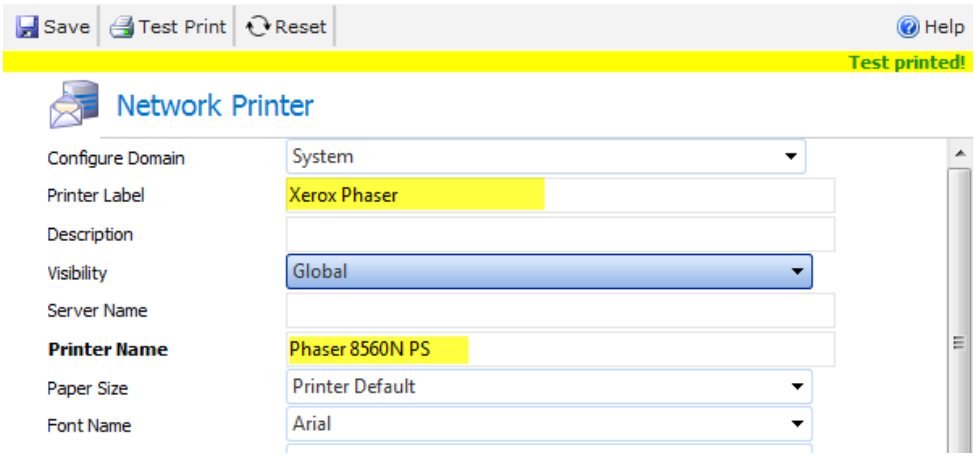
Step1: Install Printer Drivers to EtherFAXfx Server in Windows

Firstly, install the Printer to the EtherFAXfx server as a local printer and make sure you are able to print to the printer by doing a Print Test Page on Windows.

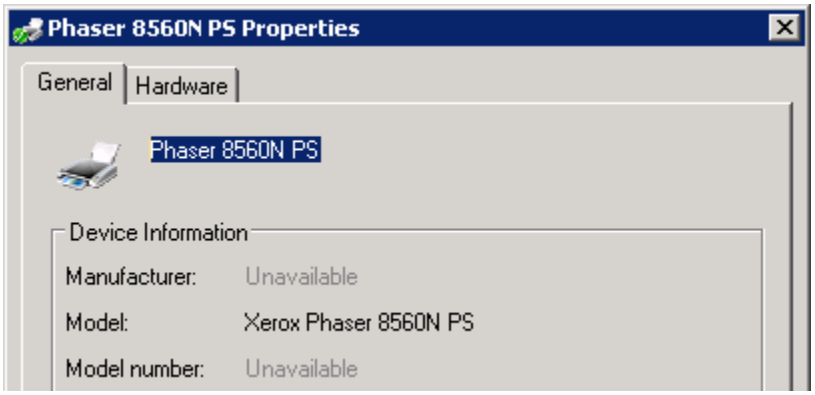


Step2: Add Network Printer to EtherFAXfx

1. Next navigate to Global Settings > Printer Settings and click on “New”
2. Enter a Printer Label for the Printer, Example: Xerox Phaser



3. Enter the **Printer Name** of the printer we’re adding. The Printer Name must match the exact same name of the Printer in Windows.

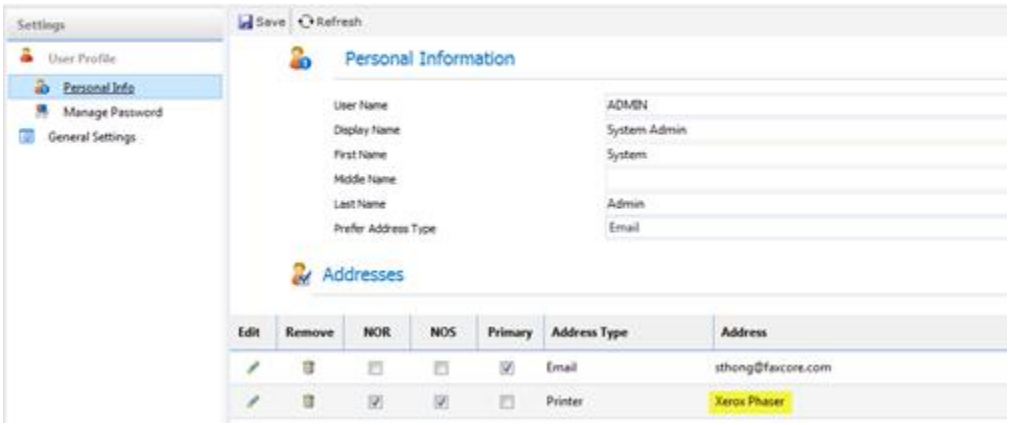


4. Click Test Print to see test the printer.

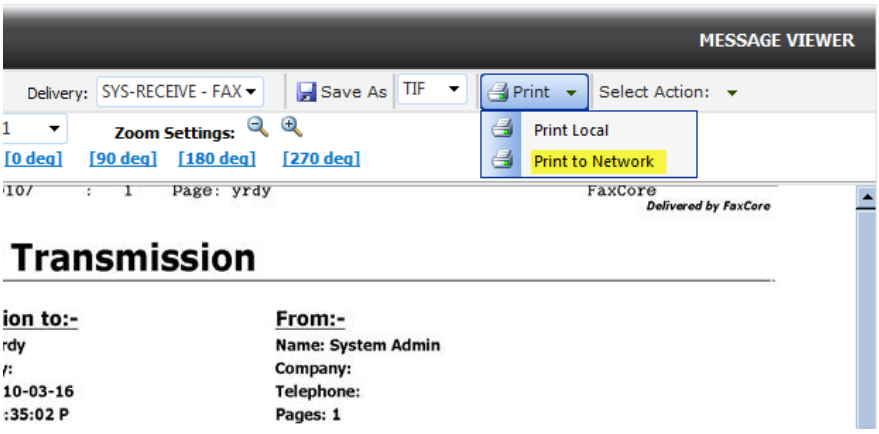
5. Click “**Save”** when done.

Users will now be able to:

- ***Add the printer to their User Profile to setup printer to print automatically on Receive and Send as Notifications.***



- ***Print messages from the Message Viewer.***



Working with Outbound Faxes

EtherFAXfx provides various methods to send outbound faxes.

Print to Fax (EtherFAXfx Print Driver)

Users can print to EtherFAXfx Print Driver from a native application such as Microsoft Word, Excel, Quickbooks, etc. to submit a fax to EtherFAXfx. Refer to **EtherFAXfx User Manual** for more details.

Web UI

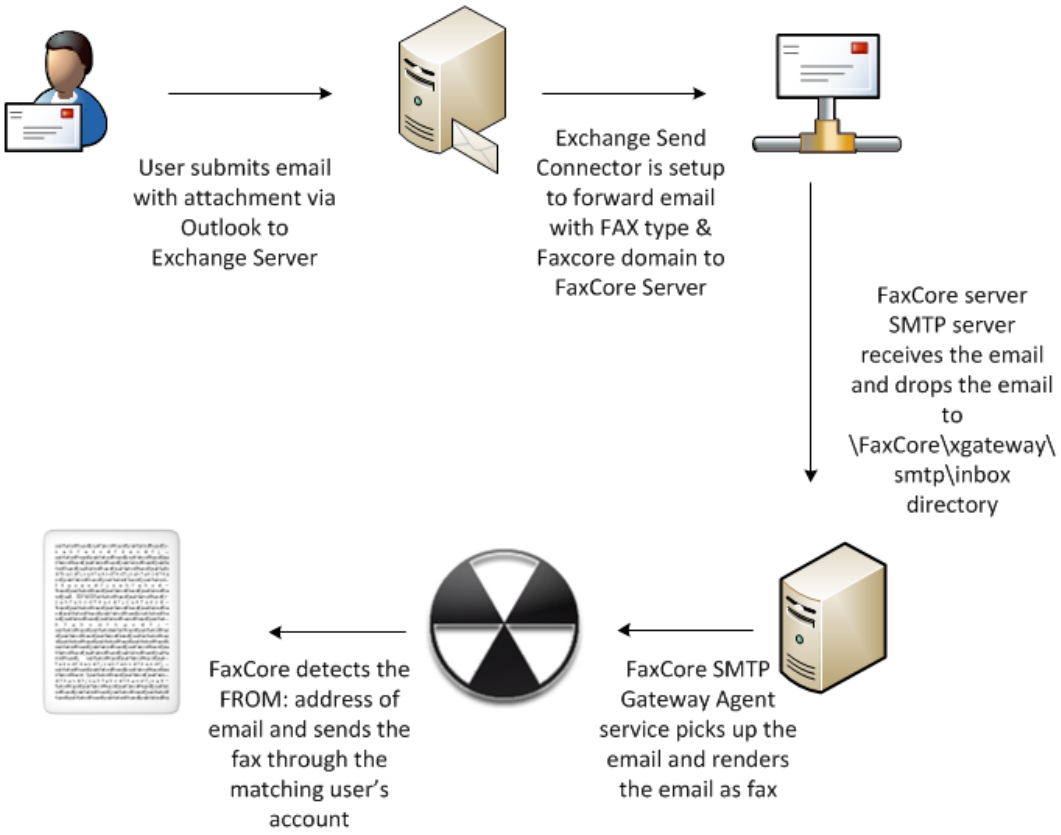
Users can logon to EtherFAXfx Web User Interface to submit a fax/message by attaching documents. Refer to **EtherFAXfx User Manual** for more details.

Email to Fax

Introduction

In an effort to eliminate any IT concerns about installing 3rd party software on the email server, EtherFAXfx utilizes a standard Microsoft Exchange SMTP connector to relay messages destined for FAX address to the EtherFAXfx fax server.

This method provides direct conversion of Microsoft Exchange Business Fax address types to outbound fax addresses. Advanced configuration allows administrators to grant email to fax privileges to specific users or mail server domains, eliminating the possibility of external spamming of the EtherFAXfx server's SMTP email gateway.



The above diagram illustrates the complete workflow of EtherFAXfx email to fax feature. This section covers configuration and setting up EtherFAXfx to enable email to fax. To implement email to fax, the following steps are required:

1) Setup Exchange Server Send Connector/SMTP Connector
2) Setup EtherFAXfx Server SMTP service to drop to SMTP gateway folder
3) Configure **SMTPGatewayAgent.exe.config** file (optional)

Upon configuration of the above steps, emails with the following address format will be submitted to EtherFAXfx to be sent out as fax.

Basic SMTP email format:
faxnumber@fax.yourdomainname.com
(e.g. +1-720-870-4141@fax.etherFAXfx.com)

Advance SMTP email format to include more information with the fax:
faxnumber/name/company/tracking/billing@fax.yourdomain.com
(e.g.
+1-720-870-
4141/JohnDoe/ContosoInc/Trackingkey1/Billingcode1@fax.etherFAXfx.com)

Outlook Business Fax Address format:

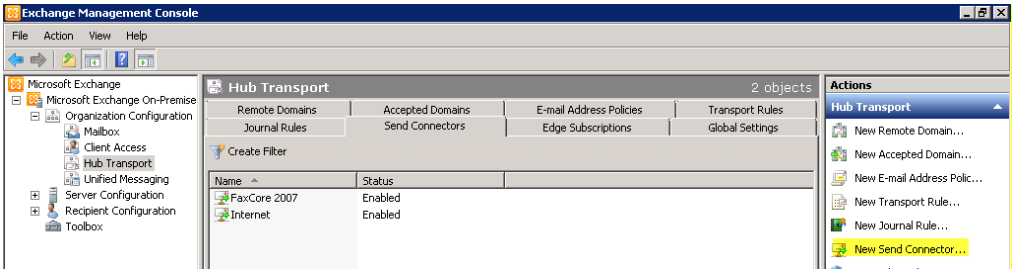
[FAX:Name@Number@Company]
(e.g. [FAX: Tom Linhard@+1-720-870-4141@EtherFAXfx]

Setup Exchange Server Send Connector/SMTP Connector

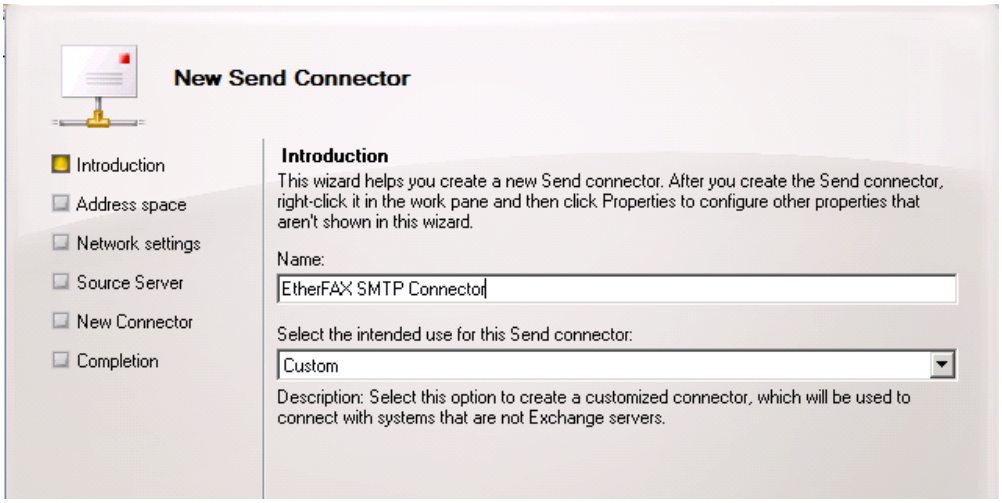
Exchange 2007 / 2010

Step 1: Add a 'Send Connector' to Microsoft Exchange 2007 server for the address space: 'fax.etherFAXfx.com' (Substitute fax etherFAXfx.com for your domain name)

1. Open the **Exchange Management Console > Organization Configuration > Hub Transport**.
2. Under 'Actions' select 'New Send Connector'.

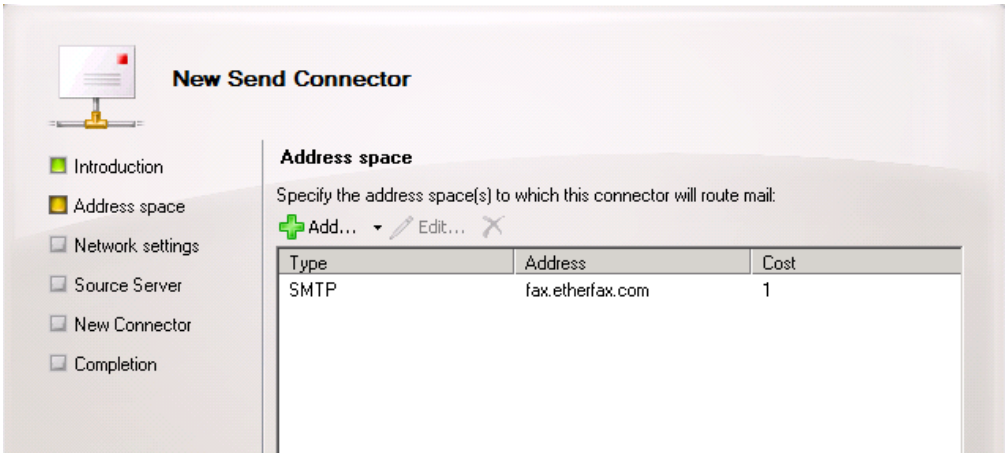


3. In the 'New SMTP connector' wizard enter the 'Name' for the connector in the 'Introduction' screen. The name can be set to: 'EtherFAXfx SMTP Connector'. (Or any descriptive name you like)
4. From the 'Select the intended use for this Send Connector' drop down list box select 'Custom'.

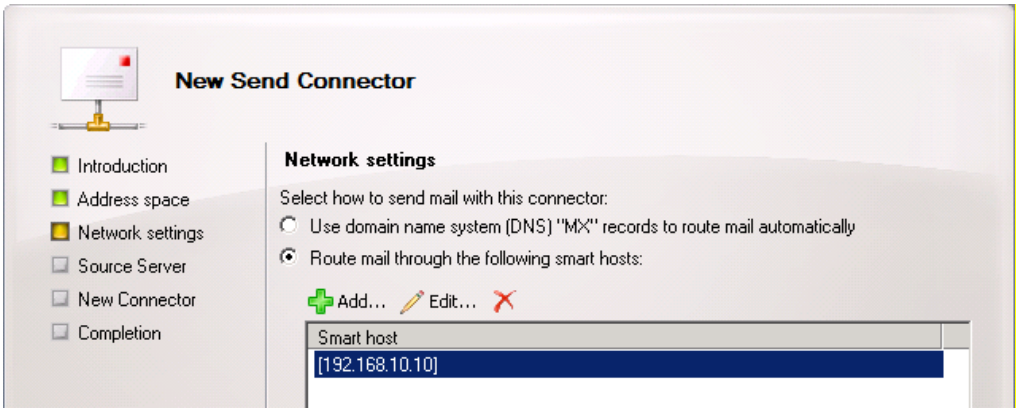


5. In the 'Address space' screen click on 'Add' and enter 'fax.etherFAXfx.com' (replace 'fax.etherFAXfx.com with your domain name). Click 'Ok'.

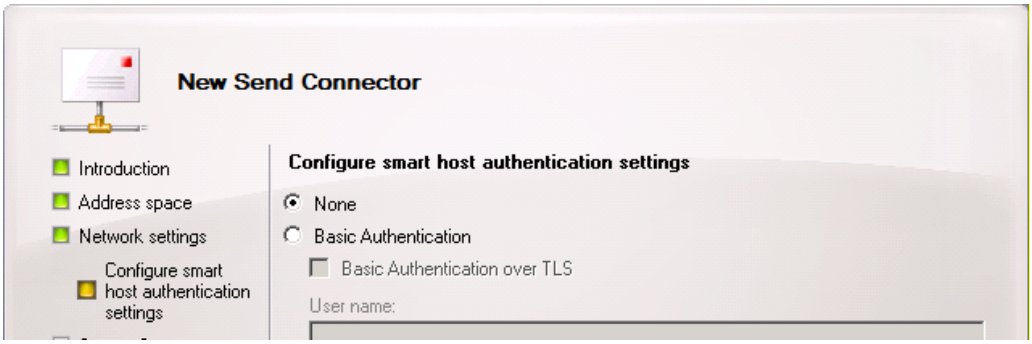
6. Ensure that the address space created has the default ‘Type’ of ‘SMTP’, and click Next'.



7. In the 'Network Settings' screen choose ‘Route mail through the following smart host’.
8. Click on ‘Add’ and insert the ‘IP address’ of the server where EtherFAXfx is installed and click ‘Next’.



9. In the ‘Configure smart host authentication settings’ screen set “None” and click ‘Next’.



10. In the ‘Source Server’ screen select the Hub Transport server with which the connector will be associated (If it isn’t already defaulted to the correct server).
11. Complete the wizard in order to create the ‘Send Connector’.

When the Send Connector Wizard is complete, the EtherFAXfx connector will be available in the ‘Send Connector’ tab. This connector should be set to ‘**Enabled**’ by default.

Step 2: Add a Send Connector for the FAX Address Space

This is the step that allows you to send faxes by using the "Business FAX" addresses in your outlook client contacts, or by specifying a fax on the address line as [FAX:anyone@1234567890].

Important: This cannot be done via the Exchange Management Console, you must use the cmdlets in the Exchange Management Shell. Exchange Management Console will only allow SMTP connectors to be created.

1. Open 'Exchange Management Shell' from 'Start' -> 'Programs' -> 'Microsoft Exchange 2007'.
2. In the console enter the following:
   new-sendConnector ***FAX*** *-DnsRoutingEnabled:$false -Smarthosts:****<IP of machine where EtherFAXfx is installed>***

   Example:
   new-sendConnector ***FAX*** *-DnsRoutingEnabled:$false -Smarthosts:****192.168.1.5***

3. Press enter and when prompted for 'AddressSpaces[0]:' type in: *FAX:**
4. Press Enter Twice. You should end up with something like this:

```
Cmdlet new-sendConnector at command pipeline position 1

Supply values for the following parameters:

AddressSpaces [0]: FAX:*

AddressSpaces [1]:

Identity AddressSpaces        Enabled

FAX      <FAX:*:1>            True
```

You should now be able to view the new connector by opening the 'Exchange Management Console' -> 'Organization configuration' -> 'Hub Transport' -> 'Send Connector'.

After doing those two things, you will need to restart **ALL** Exchange 2007/2010 services. (It may be easier to restart the server). You will also need to go in and rebuild the Offline Address Book so that the new address spaces are created and sent to the Outlook client.

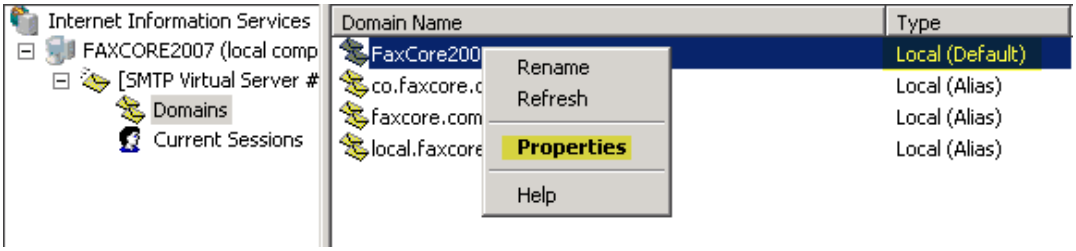
If you do not restart and rebuild, you will get an NDR saying "None of your e-mail accounts could send to this recipient." when you try to send a FAX from Outlook.

Setup EtherFAXfx Server SMTP service to drop to SMTP gateway folder

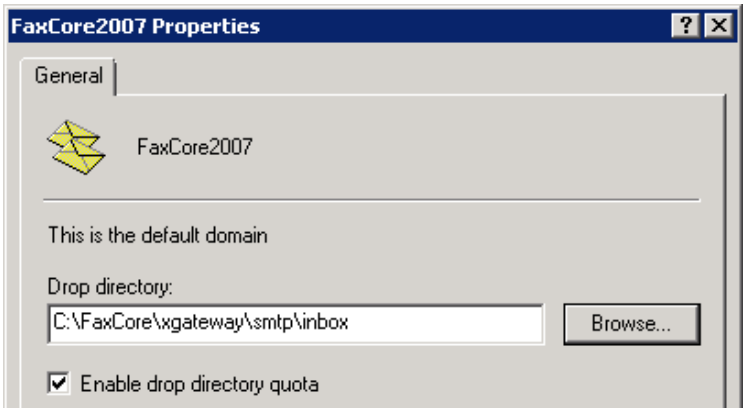
Step 1: Setup Default SMTP Drop Folder

1. On the EtherFAXfx server, navigate to Start Menu > Administrative Tools > Internet Information Services (6.0) Manager.

2. Expand SMTP Virtual Server and select Domains. On the right pane, locate the Default Domain Name (should be your EtherFAXfx server name) > right click on it and select Properties.

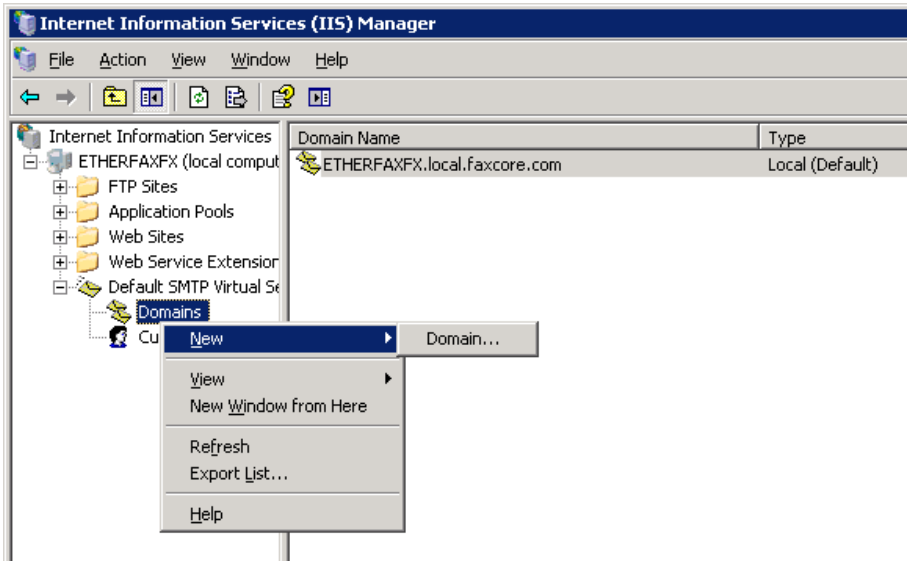


3. Click on Browse and browse to EtherFAXfx install directory\xgateway\smtp\inbox as shown in the next screen.

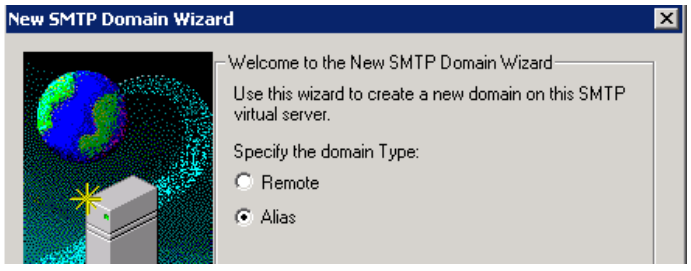


Step 2: Add SMTP domain names

1. Right click on Domain and select **New -> Domain**



2. Select "**Alias**" on the "**New SMTP Domain Wizard**" window and click "**Next**".



3. On the next screen, enter the domain name/address space that is configured on the Exchange Send Connector in earlier section (Step 1: Add a 'Send Connector' to Microsoft Exchange 2007 server for the address space: 'fax.etherFAXfx.com' (Substitute fax etherFAXfx.com for your domain name))

4. Repeat the above steps to add your local SMTP domain to the list. For Example: **local.contoso.com**

Configure SMTPGatewayAgent.exe.config file (optional)

This step is optional and only required to change the configuration of the SMTP Gateway service other than the default settings. The SMTPGatewayAgent.exe.config file located in \EtherFAXfx\ directory provides administrator to configure the following options:

```
<SMTPGateway>
    <SMTP>
      <add key="baseDirectory" value="xgateway\smtp"/>
      <add key="inboxDirectory" value="xgateway\smtp\inbox"/>
      <add key="treatEmailBodyAsDocument" value="0"/>
      <add key="faxAsRaw" value="0"/>
      <add key="inBodyAuth" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
      <add key="removePrefix" value="FAX"/>
      <add key="bufferSize" value="16384"/>
      <add key="IMESEQ" value="NAME@ADDR@COMPANY"/>
      <add key="BackupTimerInterval" value="1000"/>
    </SMTP>
  </SMTPGateway>
```

Key	Description	Default Values:
baseDirectory	Base Directory of the SMTP gateway folders	`xgateway\smtp`
inboxDirectory	Drop folder to monitor incoming emails to fax	`xgateway\smtp\inbox`
treatEmailBodyAsDocument	Specifies whether to treat email body as a separate document. If set to “0”, email body will be included in the Notes section of the coverpage. (0 = NO, 1 = YES)	`0`

inBodyAuth	Specifies whether to use authentication in email body. (0 = NO, 1 = YES).
	If set to yes, email body must contain the following on the first line of the email body:
	`[user: Encryptedpass]`
	Example:
	`[jdoe: 0PjIJYa6udJtQGQ0L1FwnCr5tv0ZxAHK]`
	To encrypt the password, use
		`0`

Key	Description	Default Values:
	http://etherFAXfxserver/_debug/testencrypt.aspx	
maxAttempts	Maximum number of retries on failures before considering the email has failed with exceptions. Emails with exceptions will be moved to \Exceptions folder in the "baseDirectory" along with a XML file specifying the error that has occurred.	2
attemptIntervalSec	Interval for each attempt to grab emails from the inbox folder.	30
removePrefix	SAP email connector appends FAX to the email address. This property configures SMTP Gateway Agent to strip off the prefix.	FAX
IMESEQ	Specify the sequence for [FAX:] address types. The sequence of the address types (NAME, ADDR, COMPANY) can be configured in any order.	NAME@ADDR@COMPANY

SMTPGatewayAgent.exe.config file can be edited with any text editor such as Notepad. After modifications has been made, save the file and restart the FXC2.SMTPGatewayAgent service with Windows Management Console.

File Gateways

Configuring EtherFAXfx File Gateways

This section explains the how to configure and enable a file gateway. Detailed information about the functionality of specific gateways can be found in "Appendix E – Gateway Specifications" at the end of this document.

EtherFAXfx 2007 supports the following gateway out of the box:

- Control file
- Embedded codes
- Embedded codes for PCL
- Embedded codes for PDF
- HP Digital Sender
- SAP

- FujiXerox XST
- Oracle
- Xerox DOC XST

Custom gateway is a reflection of the above gateways list, provide option to create more than one of each gateway type.

In the instructions below, the name of the gateway is referenced as <gatewayName>. When performing the steps, substitute the appropriate value for this parameter.

Configuring and enabling a gateway is a 3 step process.

Step 1: Configure a profile for a file gateway

Configuration settings for each file gateway are located in the `GatewayAgent.exe.config` file at the root directory of the EtherFAXfx installation. Each set of processing directories must have its own section (profile) in the config file.

The following parameters can be configured for each gateway profile:

Parameter	Description	Required	Default Value
baseDirectory	The full path to the root directory where the processing directories are created. The directory monitor creates the following directories underneath the baseDirectory: complete, exception, unauthorized, temp	Yes	xgateway\controlfile
inboxDirectory	The full path to the inbox directory where files are placed to be processed. May contain UNC directories.	Yes	xgateway\controlfile\inbox
processFileMask	The file mask indicating the files the directory monitor should scan for processing.	Yes for control file gateways	*.ctl
defaultUserName	The default EtherFAXfx user to assign to created messages. Every message in EtherFAXfx must be owned by a EtherFAXfx user account. This parameter can be used to allow anonymous files to be processed if the user account is not specified directly in the file. The value of this parameter should be the username that is used for logging into the EtherFAXfx server.	No	em-codes

allowAnonymousUsers	Indicates that EtherFAXfx should try to use the defaultUserName even if a username is specified in the file but can't be authenticated. By default (if this is set to 0), if a username is specified in the file, but it does not exist in EtherFAXfx, the gateway processor with throw an Unauthorized error.	No	1
userNamePrefix	Indicates a prefix that prefixes any username field. EtherFAXfx will strip off this prefix before identifying the EtherFAXfx user.	No	null
inputFileType	The type of files (extension) that are being placed in the inbox directory. Used by some gateways to determine the type of file when the extension is not included in the file name.	No	TIF or PDF
isInputFileBinary	1 if the input file type is in binary format. 0 if the input file type is text.	Yes	0
binaryDataStartIndex	For Embedded Codes binary files, specifies the text string that indicates the start of the binary data, and the end of the embedded codes. For PDF, this is usually: %PDF	Yes for binary code files	
preserveCodesInOutput	For Embedded Codes files, specifies if the embedded codes text should be preserved in the output file.	Yes for embedded codes	0
faxAsRaw	Determines whether to treat all fax numbers as raw numbers. Raw numbers are not parsed and normalized by the EtherFAXfx parsers. Set to 1 to treat as raw, or 0 to have EtherFAXfx parse the numbers.	No	0
includeSenderNotification	Indicates if EtherFAXfx should include the default notifications set up in the EtherFAXfx user profile.	Yes	0
includeSenderCoverPage	Indicates if EtherFAXfx should include the default cover page(s) set up in the EtherFAXfx user profile.	Yes	0
maxAttempts	The maximum attempts to try to process a single file.	Yes	2
attemptIntervalSec	Delay in seconds between each attempt.	Yes	30

Step 2: Enabling the Directory Monitor

The Directory Monitor is invoked through the GatewayAgent service. The GatewayAgent is configured in the **`GatewayAgent.exe.config`** file at the root directory of the EtherFAXfx installation. To enable

automatic processing of a gateway, you can edit the corresponding entries to the EtherFAXfx GatewayAgent so that it is aware of the gateways to monitor. Look for the key **TYPE** in the config file and turn on each file gateway by using the value `1` and `0` to turn off directory monitor for a particular gateway (by default, all gateways are turned on).

```
<TYPE>
  <add key="controlFile" value="1"/>
  <add key="embeddedCodes" value="1"/>
  <add key="embeddedCodesPcl" value="1"/>
  <add key="embeddedCodesPDF" value="1"/>
  <add key="hpDigitalSender" value="0"/>
  <add key="SAP" value="1"/>
  <add key="FujiXeroxXST" value="1"/>
  <add key="Oracle" value="1"/>
  <add key="Xerox" value="1"/>
</TYPE>
```

Step 3: Restart the EtherFAXfx Gateway

The EtherFAXfx Gateway (FXC2.Gateway) must be restarted in order to pick up the changes made in step 2 above. Restart the FXC2.Gateway service using Windows 2003/2008 Service Control Manager.

Defining a New Gateway Specification

The process of defining a new gateway specification consists of creating and modifying various EtherFAXfx configuration files, and possibly database metadata. Please contact EtherFAXfx technical support for help with creating new gateway specifications. Click here for **Support** contact information.

PCL Print Spooler

EtherFAXfx 2007 PCL Print Spooler is a service that enables EtherFAXfx to monitor and respond to embedded codes through a print stream. The EtherFAXfx Print Spooler allows document with attached embedded codes to be sent to a printer instead of exporting to a file and then processing.

Configuring EtherFAXfx to Process Print Streams with Embedded Codes

This consists of two steps:

1. Installing EtherFAXfx 2007 PCL Print Spooler service.
2. Configuring the EtherFAXfx 2007 GatewayAgent to process PCL embedded codes.

Installing EtherFAXfx FX PCL Print Spooler Service

Download and run `EtherFAXfxPCLPrintSpooler.msi`. Follow the on-screen instruction to install the EtherFAXfx 2007 PCL Print Spooler service to the EtherFAXfx installation directory.

After installation, a new service called FXC2.PCLPrintSpooler is created on the system and started automatically.

Configuring EtherFAXfx 2007 GatewayAgent to process PCL Embedded Codes.

To configure EtherFAXfx 2007 GatewayAgent to process PCL Embedded Codes, open and edit the `GatewayAgent.exe.config` file located at the EtherFAXfx installation root folder – e.g., `C:\EtherFAXfx\` – with Notepad or an editor of your choice.

Make sure that EmbeddedCodesPCL is enabled. This is already configured by default during installation.

```
<Gateways>
    <TYPE>
        ….
       <add key="embeddedCodesPcl" value="1"/>
        ….
   </TYPE>
```

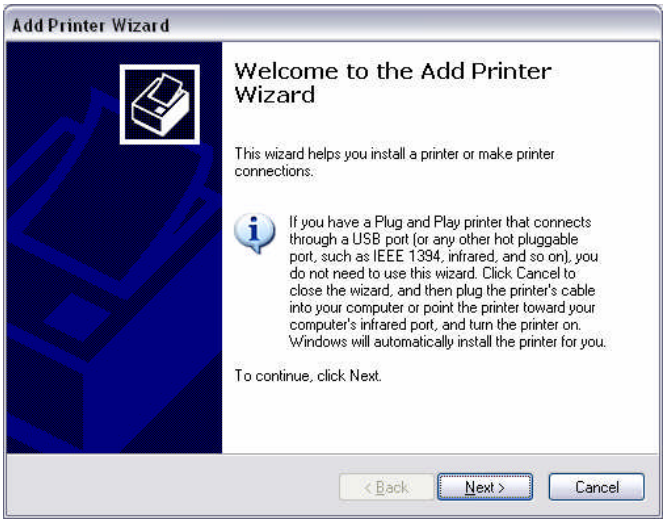
This lets EtherFAXfx process the incoming print streams from the EtherFAXfx PCL printer.

After the appropriate change has been made to the `GatewayAgent.exe.config` file, PCL files with embedded codes can be accepted from the EtherFAXfx 2007 PCL Print Spooler service.

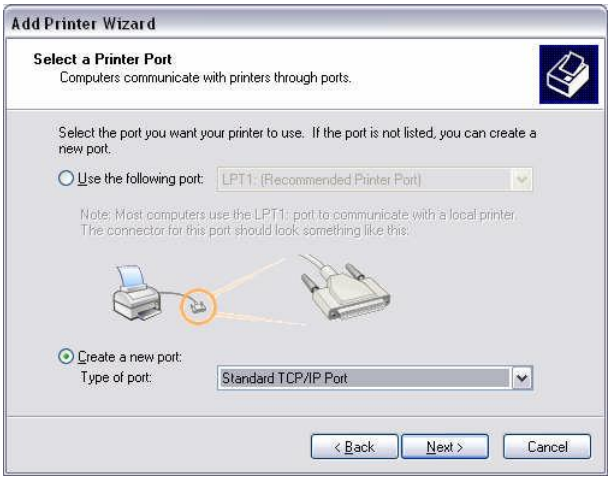
Alternatively, the files can be manually put into a directory. To do this manually, place the PCL files with embedded codes in the `\EtherFAXfx\xgateway\embeddedCodesPcl\inbox` directory.

Installing EtherFAXfx PCL Printer

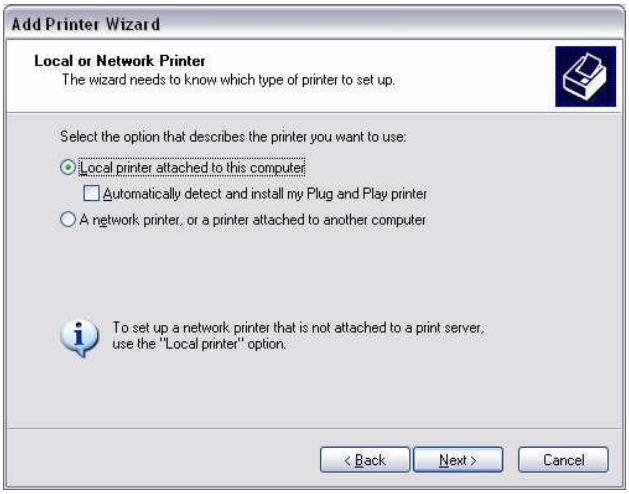
On the client machine, go to **Control Panel > Printers and Faxes > Add Printer**.



Click **Next**.

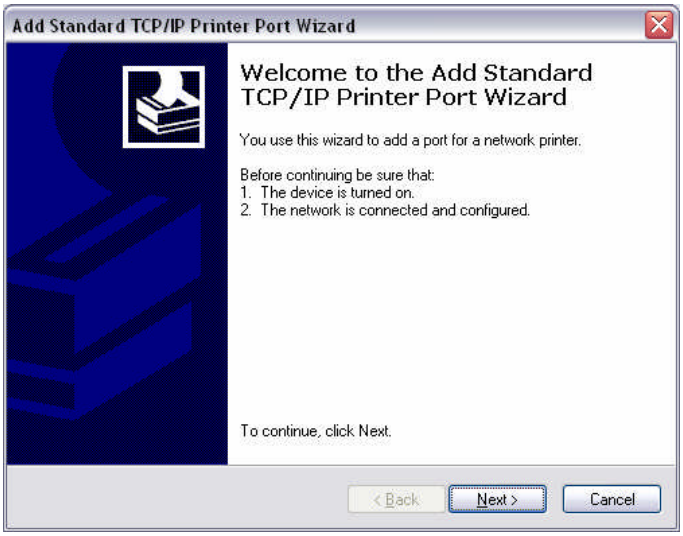


Select Local Printer.

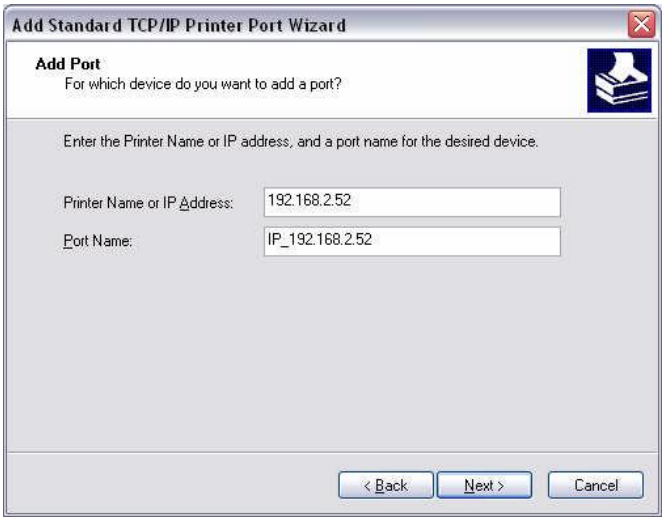


Select Standard TCP/IP Port.

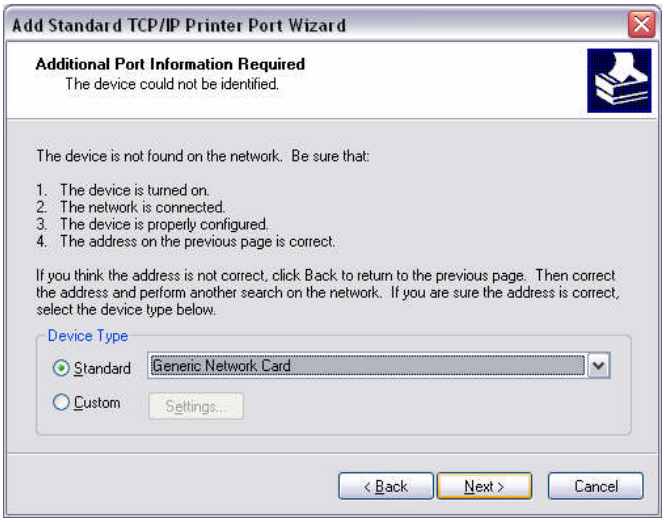
Configuring the TCP/IP Port.



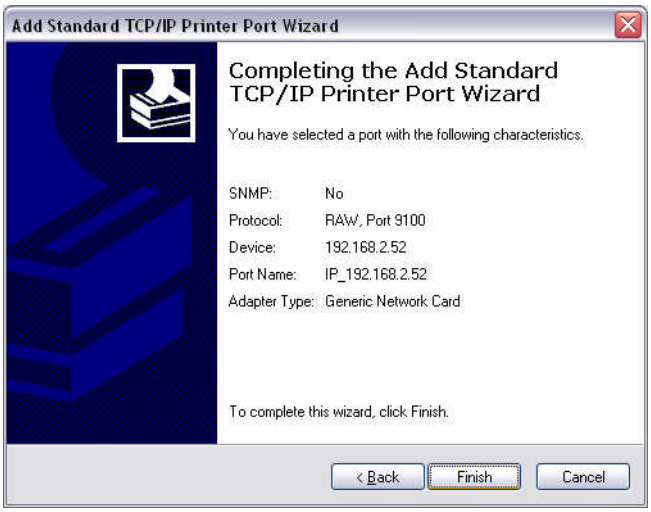
Click **Next** and Enter the IP address of the EtherFAXfx server.



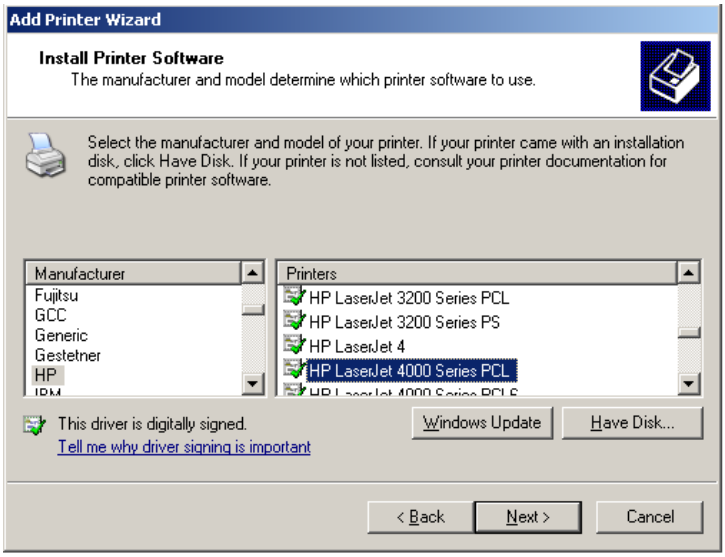
Click **Next** and Select **Generic Network Card**.



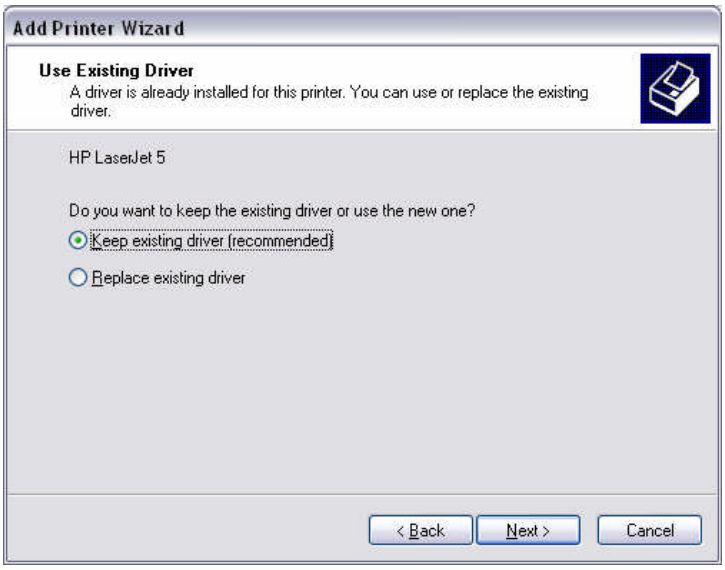
Click **Finish**. Port configuration is complete.



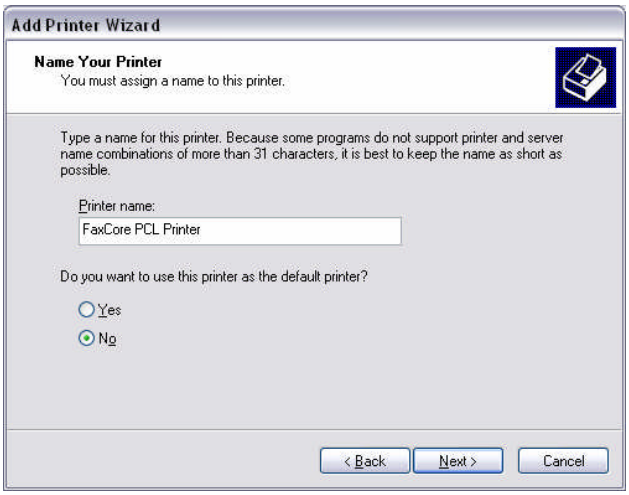
The **Install Printer Software** screen appears.



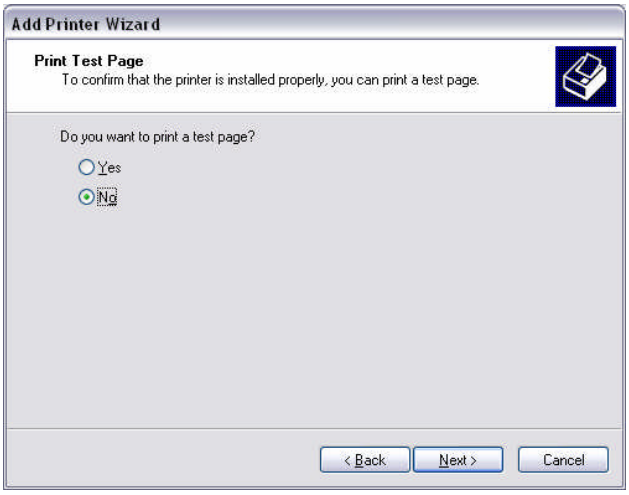
Recommend selecting **HP** for **Manufacturer,** then select the HP LaserJet 4000 PCL printer.



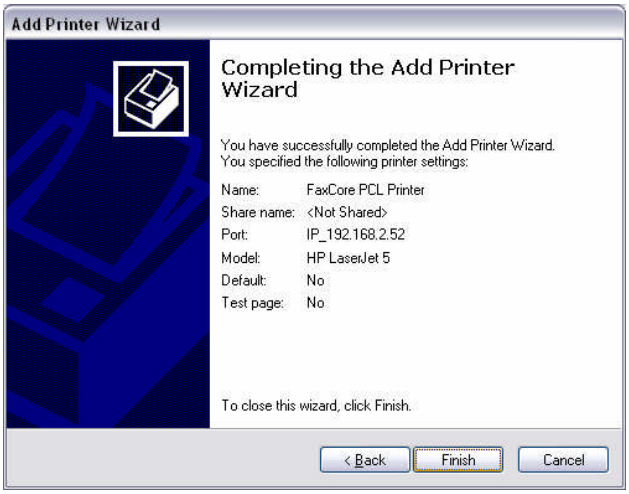
If the driver exists, select **Keep existing driver**.



Give the printer a name – e.g. **EtherFAXfx PCL Printer**.



Select **No** to print a test page.



Click **Finish**. You have completed the installation of the EtherFAXfx PCL printer.

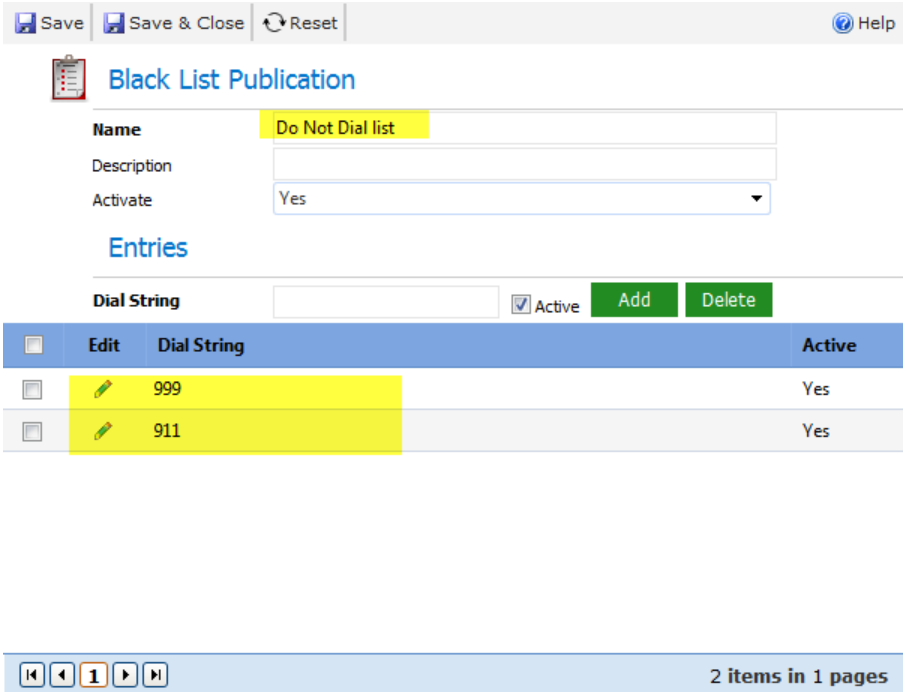
Working with Blacklist Publications & Subscriptions

EtherFAXfx allows administrators to create Blacklist publications to block users/domains from sending to a certain fax numbers/destinations. The following steps are needed to enforce blacklist publications for users/domains.

1) Create a Blacklist publication with a list of blacklist numbers.
2) Subscribe users to the intended Blacklist publication

Create a Blacklist Publication

Navigate to Global Settings > Blacklist Publication and select “New” button.



Give the Blacklist publication a name, example: “Do Not Dial list”

On the Dial String field, enter the numbers that you want on the blacklist and click Add, example “911, 999, etc.”

“*” (wildcard) is not supported. EtherFAXfx compares the dial string from left to right only (numbers starting with the Dial String)

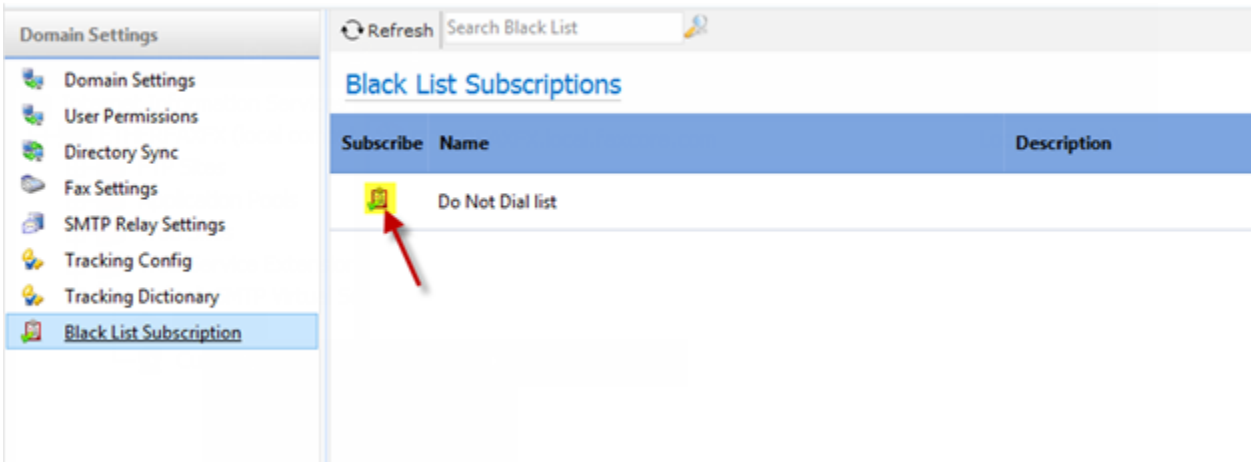
Blacklisted Dial String: 999
User Input Dial String: 9991114444
Match Blacklist: Yes

You can add as many numbers you wish to block to the list.

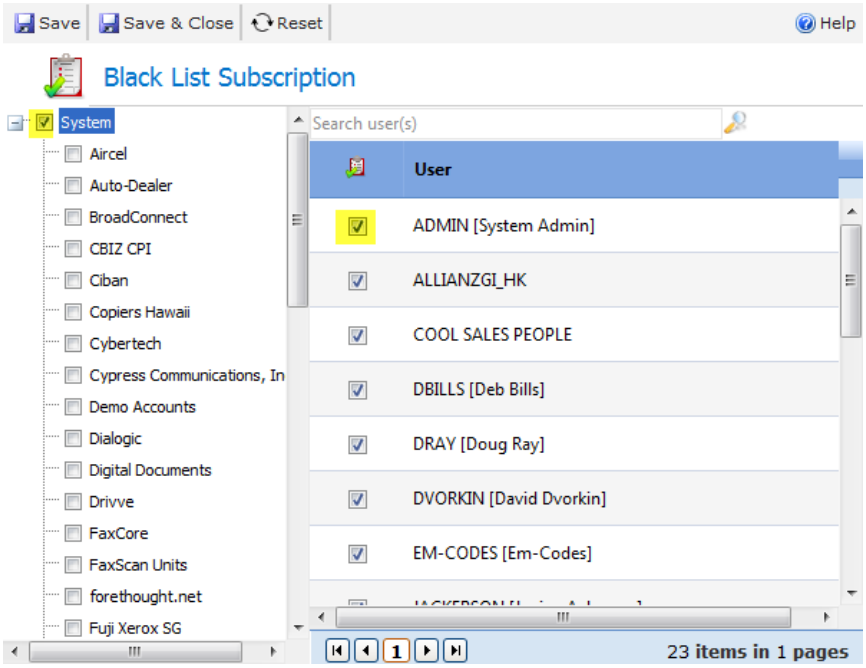
Next, click “**Save & Close**” when done adding numbers to the blacklist.

Subscribe Users to a Blacklist Publication

1. Navigate to **Domain Settings > Blacklist Subscription**



2. Click on the subscribe icon as shown on the figure above to subscribe users/domains to the Blacklist publication.

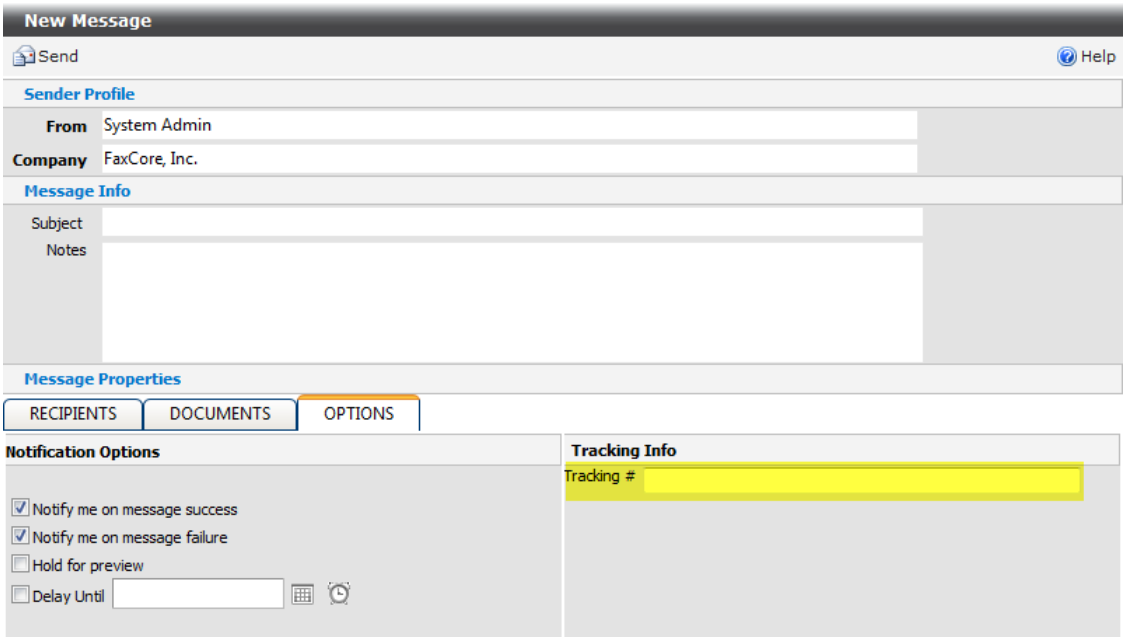


3. You have the option to either select domains from the left pane, or certain users from the right pane to subscribe to the intended blacklist.
4. Click “Save and Close” when done selecting users for the subscription.
5. Users subscribed to the Blacklist publication will now be blocked from sending to the numbers listed in the publication.

Working with Tracking Keys

EtherFAXfx Tracking keys enables users to input tracking keys to inbound and outbound faxes to search, track and manage faxes.

By default, users can enter a tracking key for every fax they send or receive as shown below:



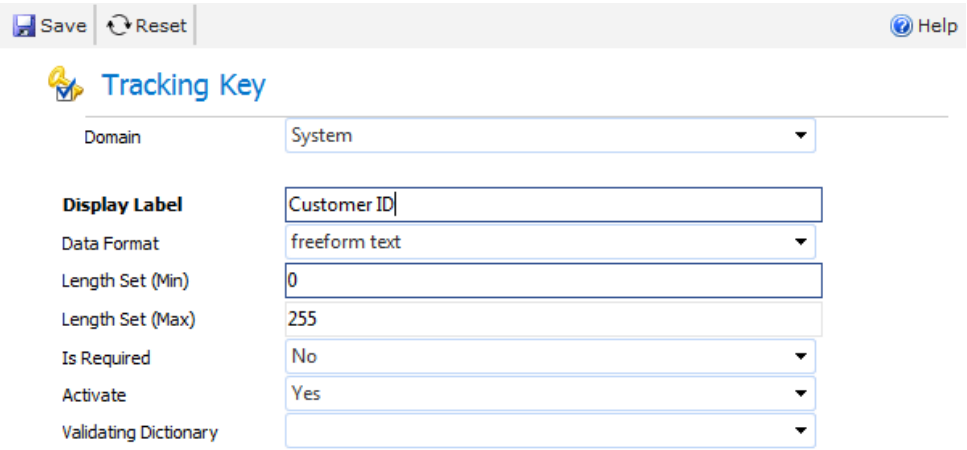
However, this tracking function can be extended and manipulated by administrators to:

1) Allow more tracking keys to be entered.
2) Force user to input a tracking key.
3) Force the type of data to input. (Text, numeric, alphanumeric, alphabetic, etc.)

Administrators can also create tracking dictionaries to allow users to choose tracking values from a drop-down list.

Create additional Tracking Keys

Navigate to **Domain Settings > Tracking Config** and select **"New"**



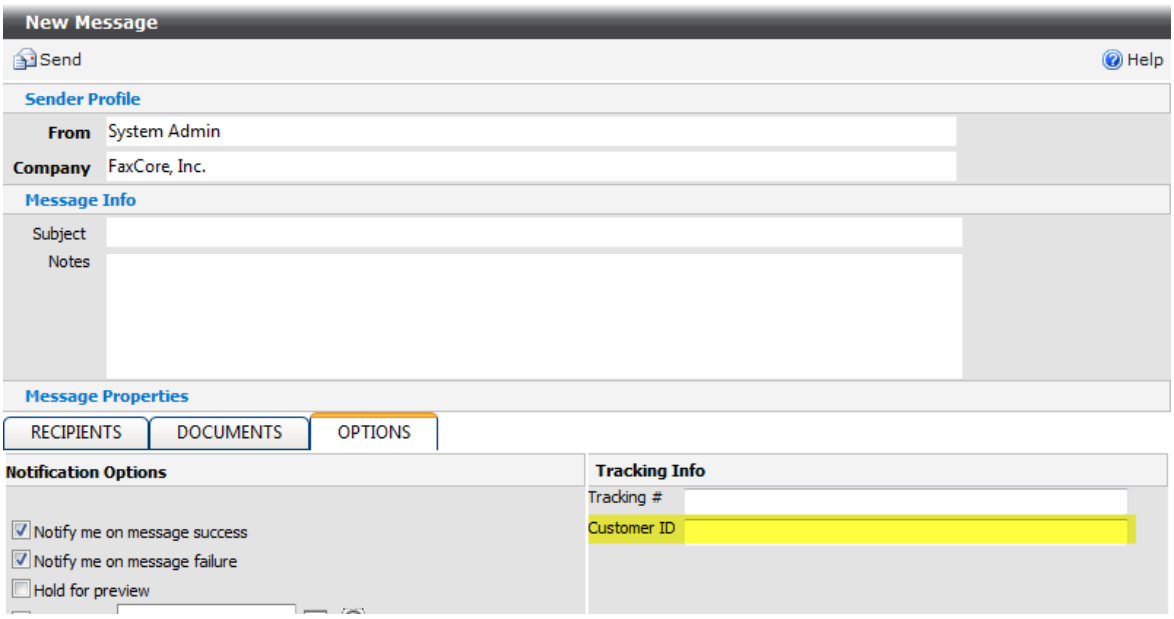
Enter a name for the Tracking Key that would display to the users, example: "**Customer ID**".

The other fields are optional. Modify/change as necessary, descriptions for each fields are provided in the table below:

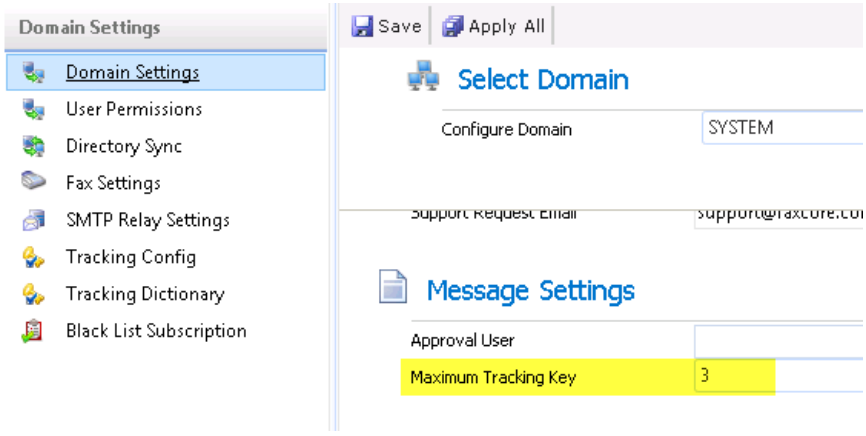
Fields	**Description**
Data Format	Specify what type of data is allowed for user's input
Length Set (Min)	Minimum number of characters for input
Length Set (Max)	Maximum number of characters for input
Is Required	Specify if user's input is mandatory
Activate	Specify if the tracking key is activated
Validating Dictionary	Specify a Tracking Dictionary for users to choose values from a drop down list.

Click "**Save and Close**" when done.

Users within the domain where we created the tracking key should be able to enter the new tracking key we've configured.

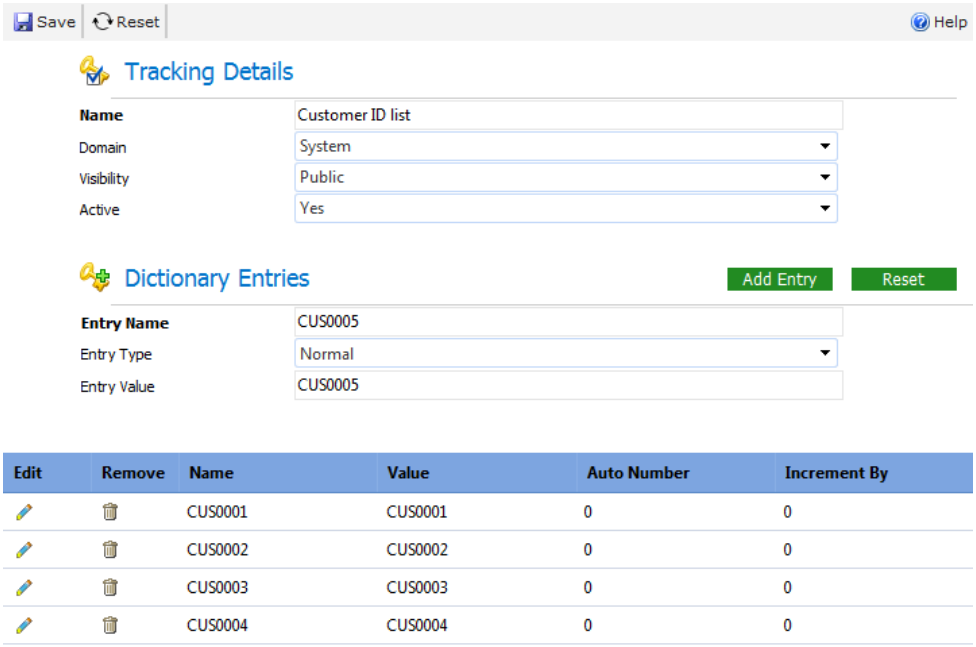


By default, the maximum number of tracking keys allowed per domain is set to 3. This value can be changed by navigating to **Domain Settings > Domain Settings > Message Setting**

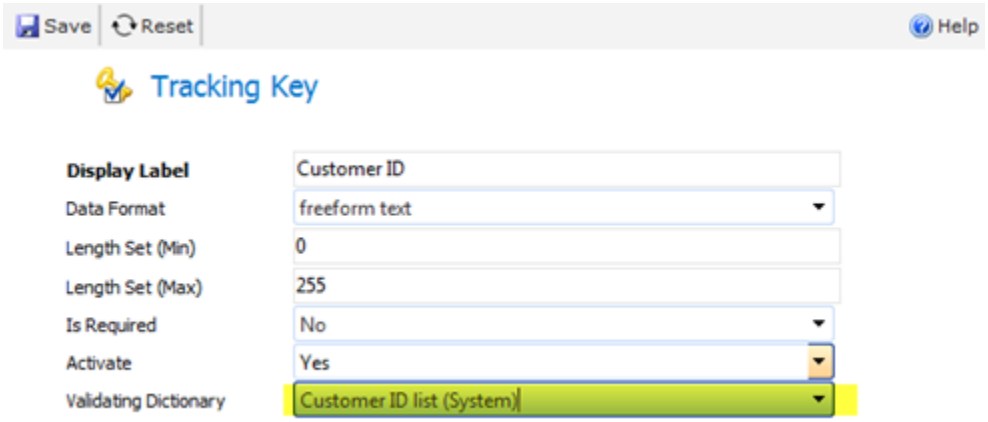


Create Tracking Dictionary

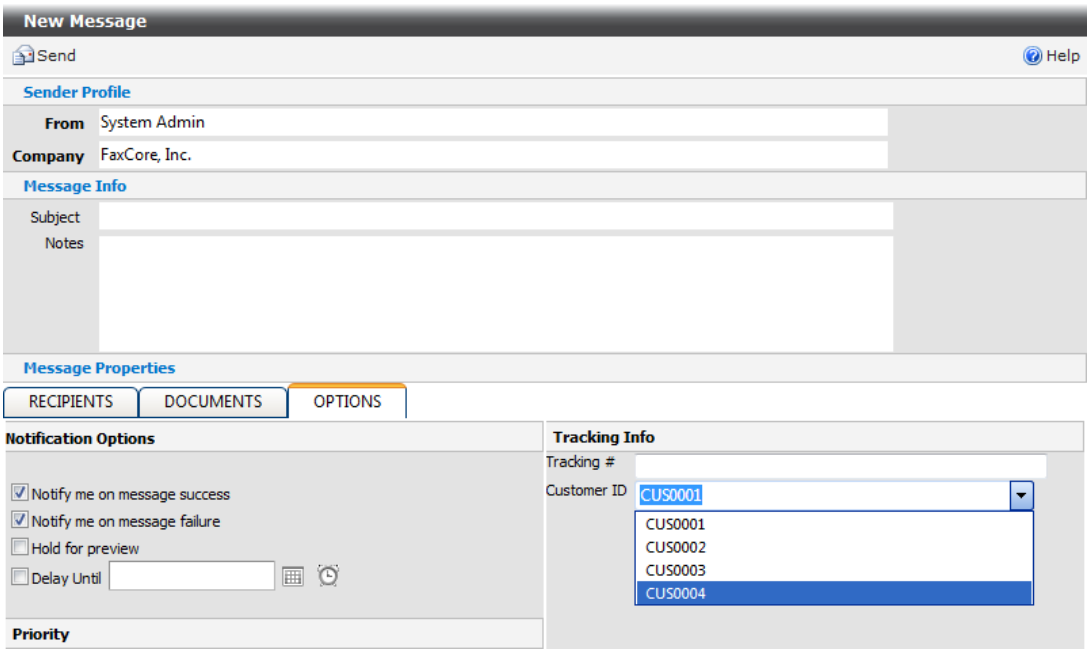
1. Navigate to **Domain Settings > Tracking Dictionary** and click on "**New**"



2. Enter a name for the Tracking Dictionary, example: "Customer ID list".
3. Choose the domain for this Tracking Dictionary to be created for and Set the Visibility to "**Public**".
4. Enter the **Entry Name** (Value to display to user) and the **Entry Value** (actual Value stored for the tracking key). **Entry Type** can be a normal text or auto-number (incremental numbers). Click on "**Add Entry**" to add the entry. Repeat this step to keep adding additional entries to the list.
5. Click on "**Save**" when done adding entries to the list.
6. To associate the newly created Tracking Dictionary to a Tracking Key, navigate to **Domain Settings > Tracking Key**. Double click on the Tracking Key you want to associate the Tracking Dictionary to edit the Tracking Key.



7. Select the Tracking Dictionary we've created earlier as the Validating Dictionary and then "**Save**".
8. Now, when user's send a fax, they will be able to choose the values of the Tracking Dictionary from a drop down list.



EtherFAXfx Notifications

EtherFAXfx can notify users when the following events happen:

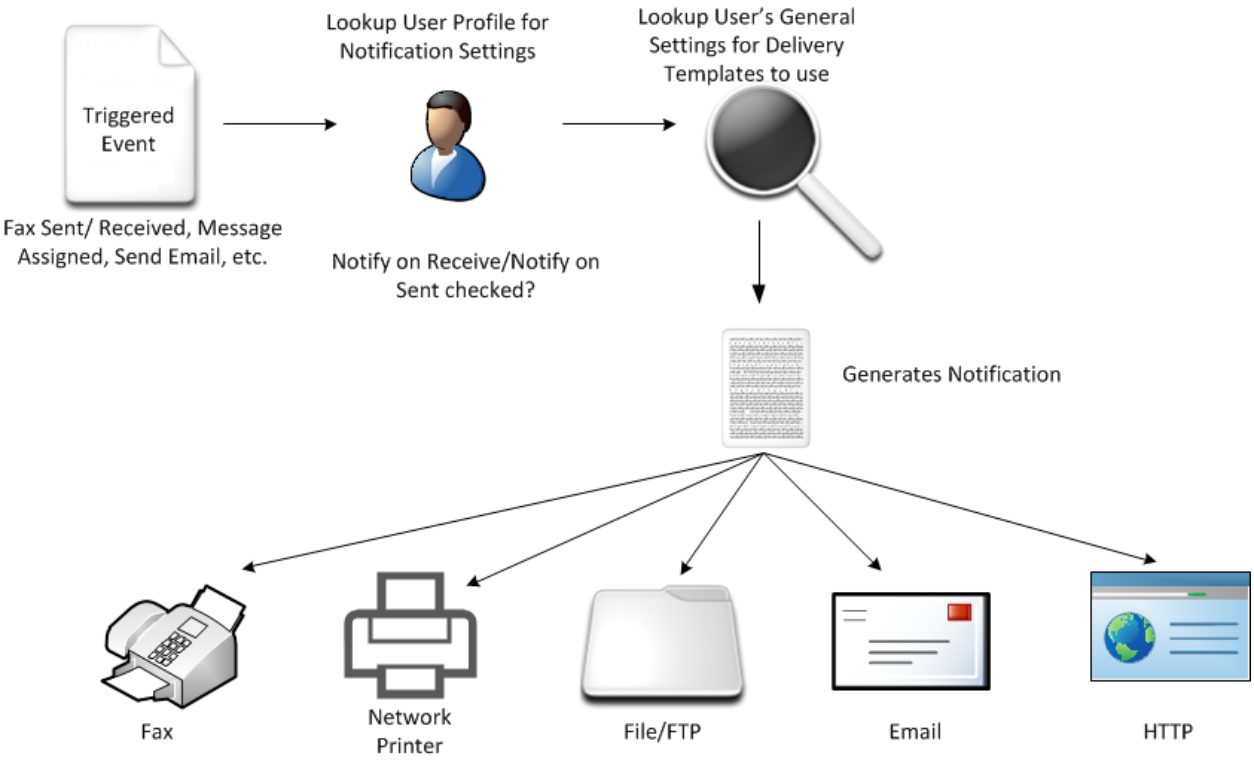
- Send delivery
- Message send success
- Message send error
- Message receive success
- Message receive error
- Recipient receive success
- Recipient receive error
- Message assign receive
- Message forward receive
- Send password
- Message print
- Approval request
- Approved reply
- Rejected reply

Notification Types

Notification can occur in a number of ways:

Notification Type	Description
File	Drops file to a folder
FTP	Drops file to a FTP address
HTTP	Submits a HTTP POST to an URL
Email	Sends an email to an email address
Printer	Prints the fax to a Network Printer
Fax	Forwards the fax to a Fax number

The diagram below illustrates the workflow of EtherFAXfx notification engine:



Delivery Templates

Each of the notification types listed above has its own distinct set of properties that control processing and formatting of the delivered message. For example, email deliveries contain a subject, body, and importance, while ftp deliveries must specify an upload directory and file name for each file transferred.

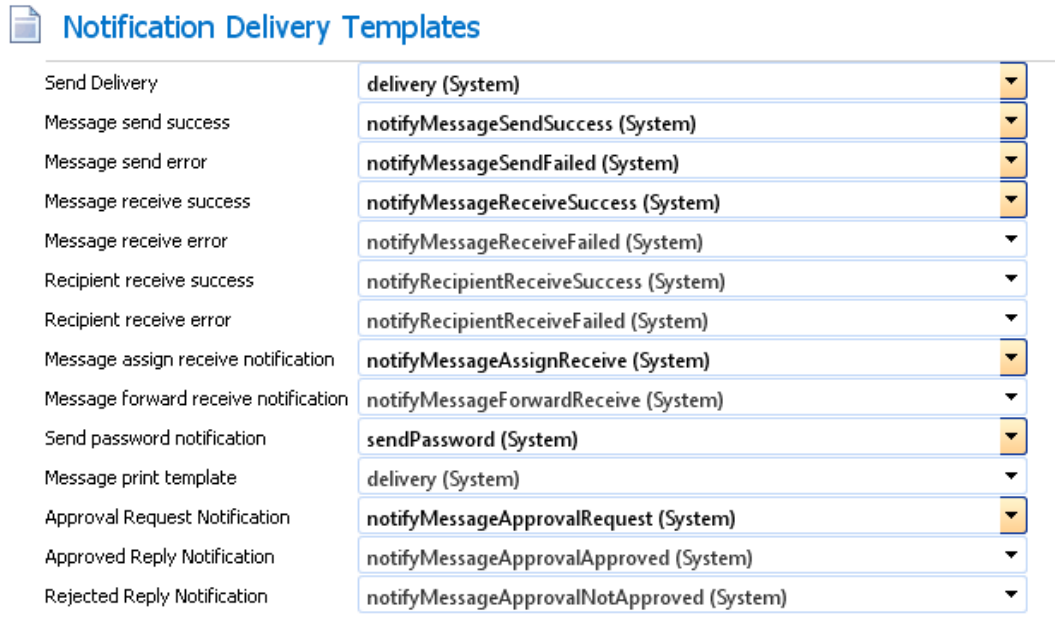
As their name implies, delivery templates are used to control how the protocol-specific properties of each delivery are set and/or formatted. Delivery templates are created and owned by a domain and have the following characteristics:

- Each template is owned by a single domain and can be visible to child domains based on its **Visibility** setting.
- Each template contains configuration setting for every supported protocol.
- An unlimited number of templates can be created
- Templates can be assigned at the domain level and also at a user level, giving you precise control how delivery message appear. Only a domain administrator can create and assign templates.

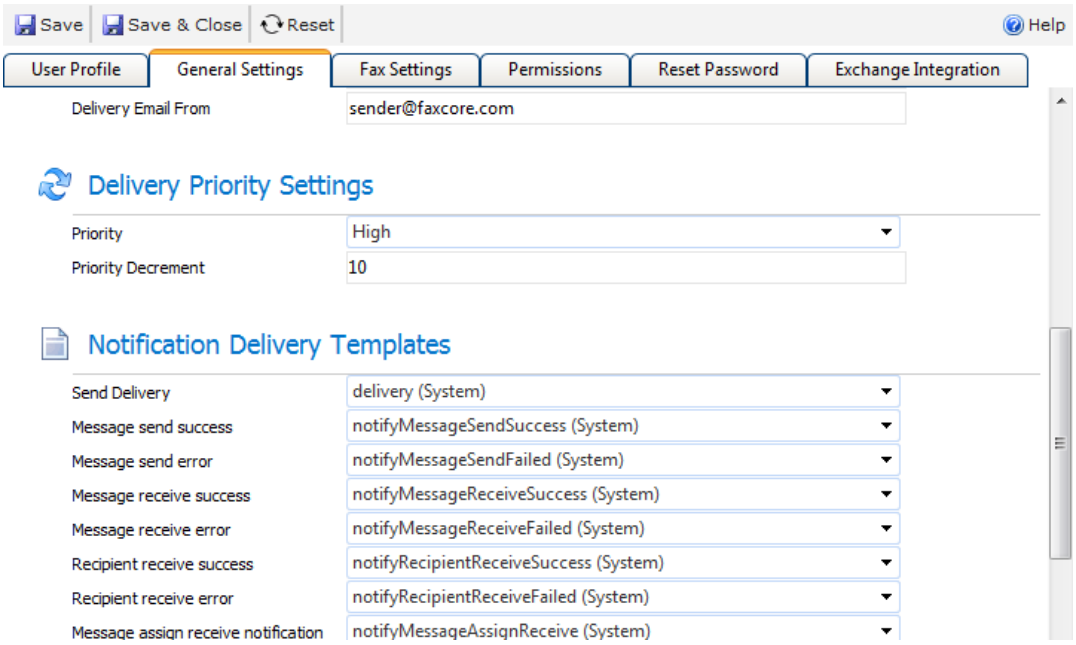
Delivery templates are not visible to users. Only system and domain administrators can configure or modify the templates.

Configuring Delivery Templates

To specify which template is used for various types of notifications, navigate to **Domain Settings > Domain Settings** and scroll down to **Notification Delivery**.



Note: *User's Settings takes precedent over Domain Settings. To change a specific user's Delivery Templates, navigate to* ***Domain Management > Users*** *, select the domain where the user resides, double click on the user and navigate to the* ***General Settings*** *tab and scroll down to* ***Notification Delivery****.*



Description of Notification Events

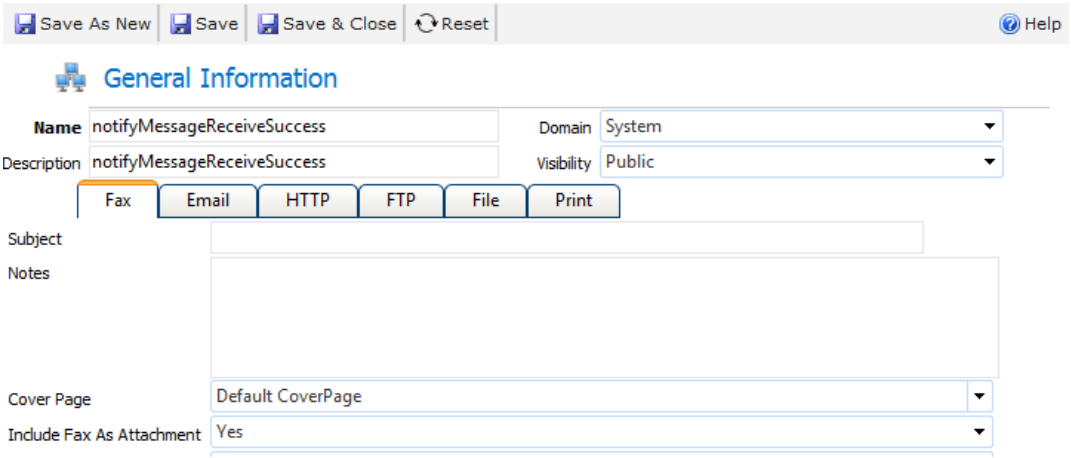
Notification Event/Actions	Description	Notification Recipient
Send delivery	Template is used for messages sent with the User Interface or SDK to Email, HTTP, FTP, File and Printer (not applicable to Fax and Raw Fax)	Recipient
Message send success	User sends a message successfully.	EtherFAXfx User
Message send error	User sends a message with a failure/errors	EtherFAXfx User
Message receive success	User receives a fax/a fax is routed to the user successfully	EtherFAXfx User
Message receive error	User receives a fax with failure	EtherFAXfx User
Recipient receive success	Recipient receives a fax successfully	Recipient
Recipient receive error	Recipient receives a fax with errors	Recipient
Message Assign receive notification	User is assigned a fax	EtherFAXfx User
Message forward receive notification	User is forwarded a fax	EtherFAXfx User
Send password notification	User requested re-send of password by clicking on “Forgot Password” link	EtherFAXfx User
Message print template	User prints to a network printer	Printed Document
Approval request notification	Approval required for a fax	EtherFAXfx Approval User
Approved reply notification	A fax is approved	EtherFAXfx User
Rejected reply notification	A fax is not approved	EtherFAXfx User

Creating Delivery Templates

EtherFAXfx provides default delivery templates for each notification event. However, Administrators might want to create new delivery templates for specific users or domains without overwriting the default templates.

To create a new delivery template, navigate to **Domain Management > Delivery Templates** and click on the **New** button:

Enter the field for each delivery types (Fax, Email, HTTP, FTP, File, and Print)



Description of each Notification Type

Fax

Field	Description	Sample Data:
Subject	Cover Page Subject for the fax	`Fax Received: $$MESSAGE.ID$$`
Notes	Cover Page Notes for the fax	`A fax has been received with Message ID: $$MESSAGE.ID$$`
Cover Page	Cover Page to use with the fax	`Select from Drop Down List`
Include Fax as Attachment	Specifies whether to attach the fax as an attachment	`Yes/No`
Priority	Submits the fax with Low, Medium or High Priority	`Low/Medium/High`
Send Using User Profile	Specifies whether to send the fax to the FAX address in the user's profile	`Yes/No`
Fax Address	Only available if "Send Using User profile" is set to "NO", this field allows Administrators to specify a fax number or a message token.	`$$MESSAGE.XSACT.XMIT.CALLER_ID$$`
Send As Raw	Specify whether to send the fax as Raw	`Yes/No`

Email

Field	Description	Sample Data:
From	From Address for the Email	`$$CONFIG.GENERAL.NOTIFICATION_FROM$$`
Subject	Subject line for the Email	`Fax Received: $$MESSAGE.XSACT.XMIT.REMOTE_CSID$$`
Image File Name	Attachment file name	`$$MESSAGE.XSACT.TRANSACTION_ID$$.$$MESSAGE.XSACT.ADDRESS_FORMAT_TYPE$$`

Body	Email body/content	**Delivery Information:** Message #: $$MESSAGE.NUMBER$$ Remote CSID: $$MESSAGE.XSACT.XMIT.REMOTE_CSID$$ Total Pages: $$MESSAGE.XSACT_PAGE_COUNT$$ Receive Time: $$MESSAGE.DATE_TIME$$ Transmit Time: $$MESSAGE.XSACT.XMIT_TIME$$

HTTP

Field	Description	Sample Data:
Image File Name	Filename of the image to post	`$$MESSAGE.XSACT.TRANSACTION_ID$$.DOCUMENT.$$MESSAGE.XSACT.ADDRESS_FORMAT_TYPE$$`
Report Query String	String to include with the HTTP Post	`?MsgID=$$MESSAGE.ID$$&TrackingKey=$$MESSAGE.TRACKING_KEY$$`
Report Body	Txt file to include with the HTTP POST	`$$MESSAGE.ID$$ complete`

FTP/File

Field	Description	Sample Data:
Image File Name	Filename of the image to post	`$$MESSAGE.ID$$.$$MESSAGE.XSACT.ADDRESS_FORMAT_TYPE$$`
Report File Name	String to include with the HTTP Post	`$$MESSAGE.ID$$.txt`
Report Body	Txt file to include with the HTTP POST	`$$MESSAGE.ID$$ complete`

Print

Field	Description	Sample Data:
Border Text	Text to print on the border of every page on the printed document	
Print With	Specify whether to print the document with Banner Page, Attachment or Both	
Banner Body Page	Content/Body of the Banner page to print	`Message #: $$MESSAGE.NUMBER`

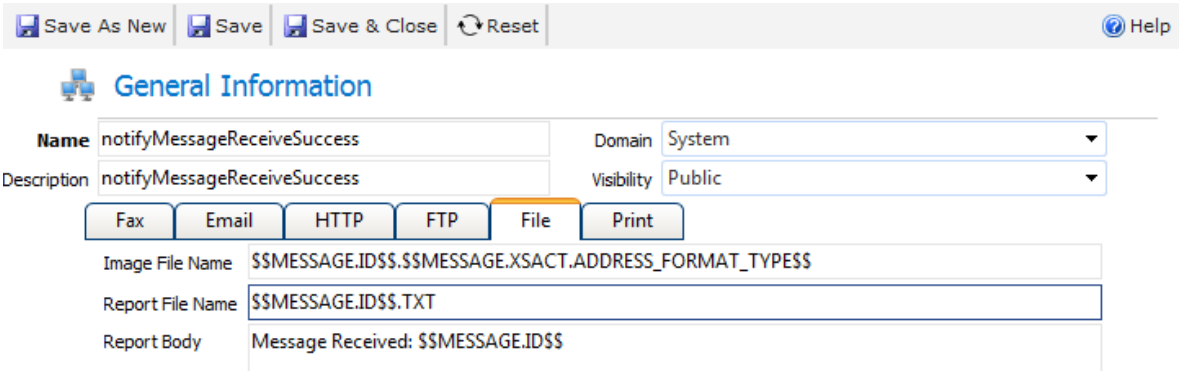
Working Scenarios of EtherFAXfx Delivery Templates

Scenario: To setup all inbound faxes to drop as a PDF file along with a TXT file to a folder (C:\Infax) on the EtherFAXfx server.

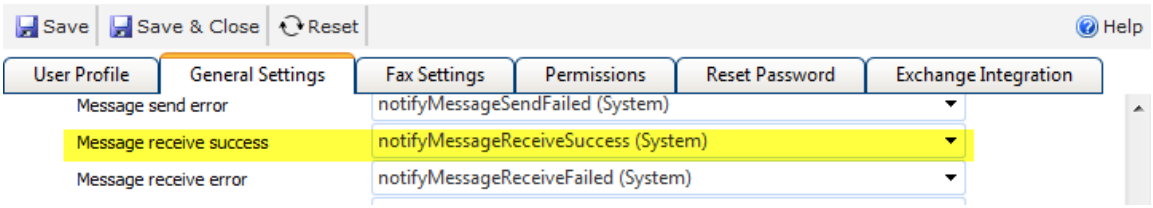
Notification Event: ***Message receive success***
Delivery Template: ***MessageReceiveSuccess (SYSTEM)***
User: ***SYS-UNROUTED***

Step 1: Navigate to **Domain Management > Delivery Templates** and double click on **MessageReceiveSuccess** template. Navigate to File tab and enter the field as following:

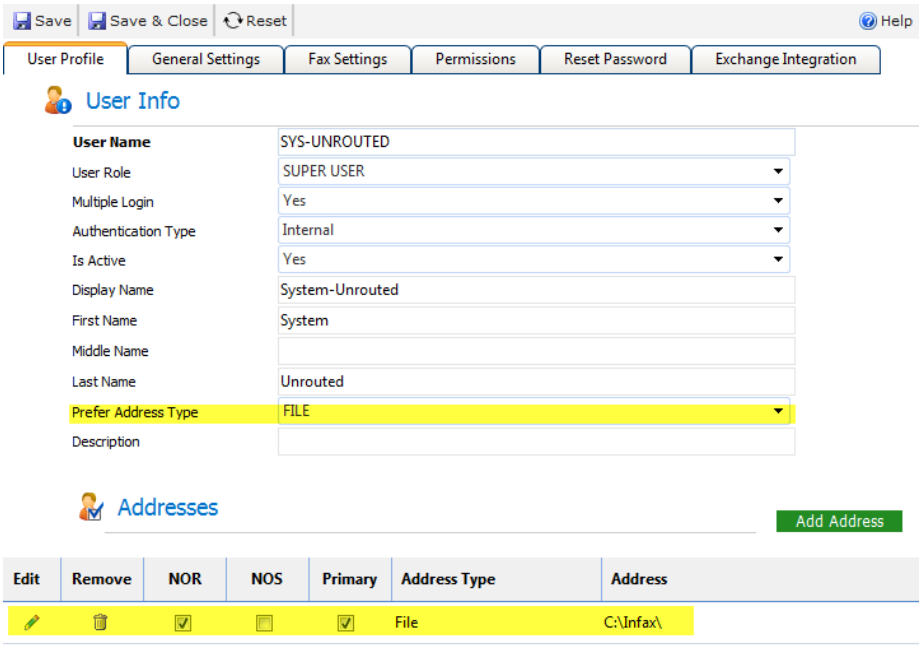
Image File Name: ***$$MESSAGE.ID$$.$$MESSAGE.XSACT.ADDRESS_FORMAT_TYPE$$***
Report File Name: ***$$MESSAGE.ID$$.TXT***
Report Body: ***Message Received: $$MESSAGE.ID$$***



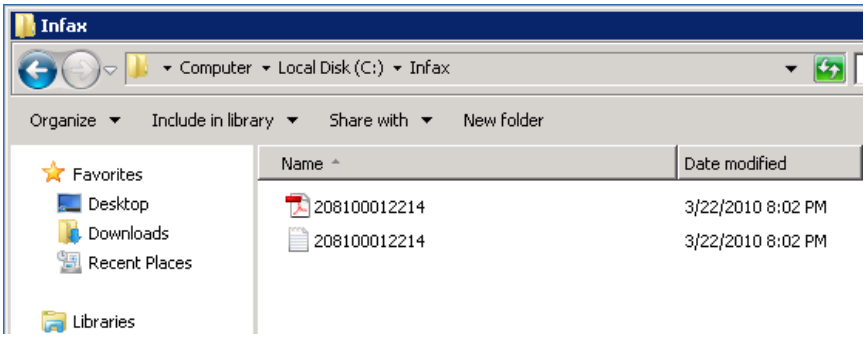
User General Settings:



User Profile:



Upon completion of the above steps, all inbound faxes will have a copy of the fax dropped to C:\Infax\



Working with Address Books

User Private Address Books

Users can create their own Address books from the EtherFAXfx Web User Interface. Refer to **EtherFAXfx User Manual** for more information on how users can setup their Private Address books.

Global/Public Address Books

Administrators can setup Global/Public address books that are shared across users within a certain domain or system-wide.

The supported Address Books types are:

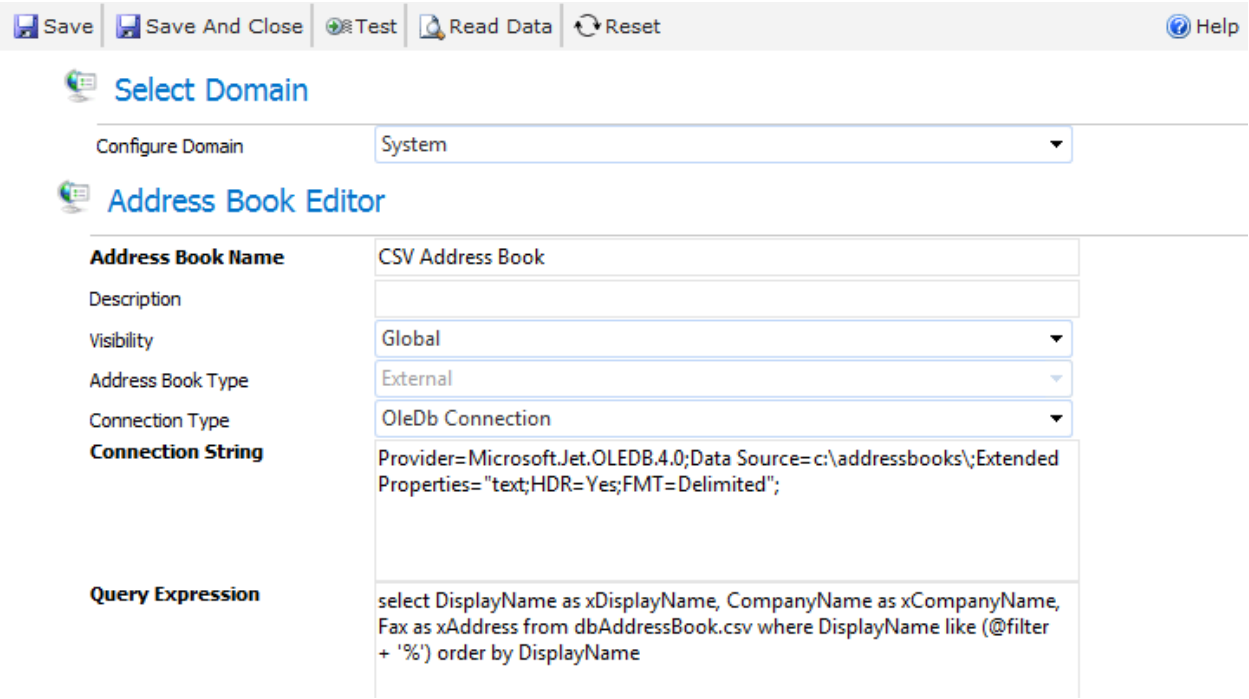
1) External – loads data from an external source such as an Excel, CSV or Excel file, SQL database or any ODBC connection.
2) Internal – Creates an internal EtherFAXfx address book that stores contacts on EtherFAXfx Database.
3) Exchange Public Address Book.

This section will provide information on how to setup the above mentioned address books.

External Address Books

Navigate **to Domain Management > Address Books** and select **"New"**

Load external contact data from CSV file



Enter an Address Book Name for the address book (example, CSV Address Book)

Change the following settings:

Visibility = Global
Address Book Type = External
Connection Type = OleDb Connection

Connection String:

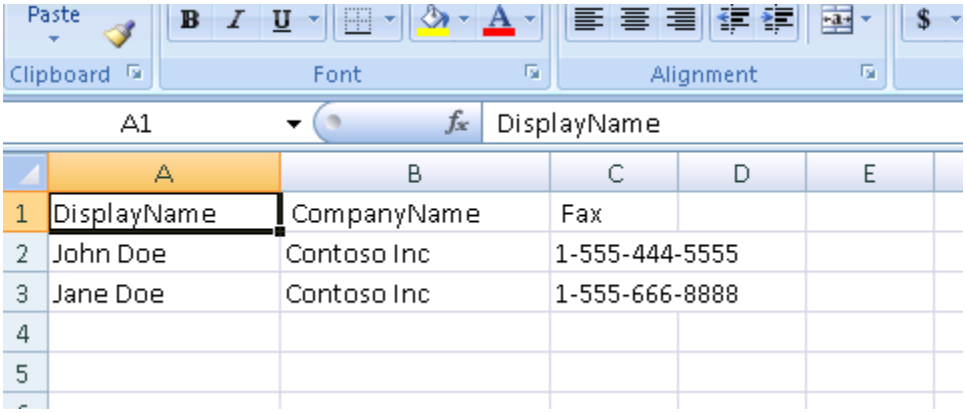
```
Provider=Microsoft.Jet.OLEDB.4.0; Data Source=c:\addressbooks\; Extended Properties="text; HDR=Yes; FMT=Delimited";
```

Note: *The above connection string assumes the CSV file(s) that we're loading is located in C:\addressbooks\ of the EtherFAXfx server. If the CSV(s) are located in a different folder, change the value of "*`Source=`*" in the connection string.*

Query Expression:

```
select DisplayName as xDisplayName, CompanyName as xCompanyName, Fax as xAddress from dbAddressBook.csv where DisplayName like (@filter + '%') order by DisplayName
```

Note: *The above Query expression assumes the CSV file name we're loading is "dbAddressBook.csv" that contains the headers, DisplayName, CompanyName, Fax.*



Replace this value with the actual CSV you want to load contacts from and DisplayName, CompanyNAme and Fax with the actual headers from the actual CSV file.

Click on "**Test**" to test the connection with the CSV file. Successful result should return "**Connected**"

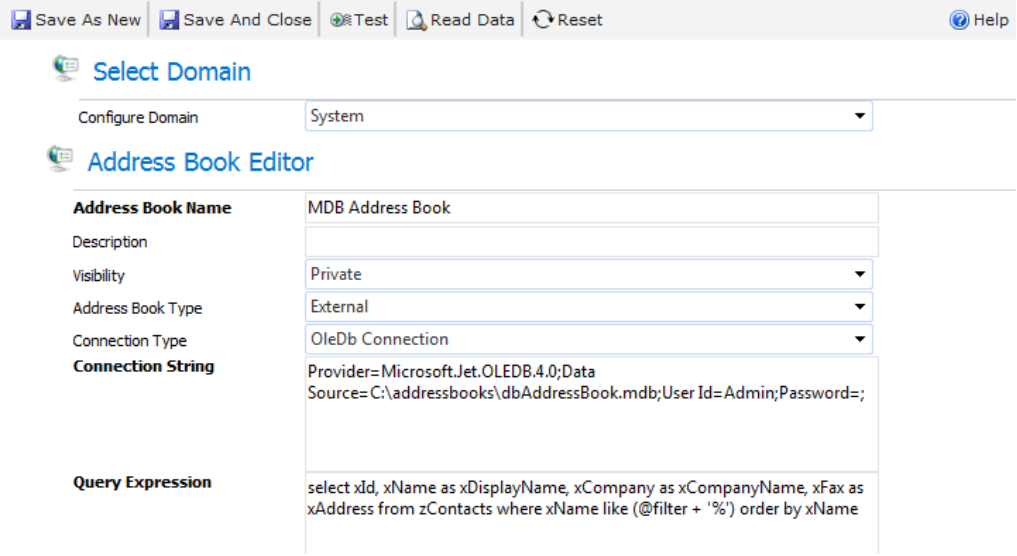
Click on "Read Data" to check if the data are read correctly.

Display Name	Company Name	Address	Address Type	Notify Address	NS	NE
Jane Doe	Contoso Inc	1-555-666-8888	Fax		No	No
John Doe	Contoso Inc	1-555-444-5555	Fax		No	No

Finally, click "**Save & Close**"

Load external contact data from Microsoft Access file

The steps to create an External Address book with a Microsoft Access file are similar with a CSV file. The difference is on the Connection String and Query Expression.



Connection String:

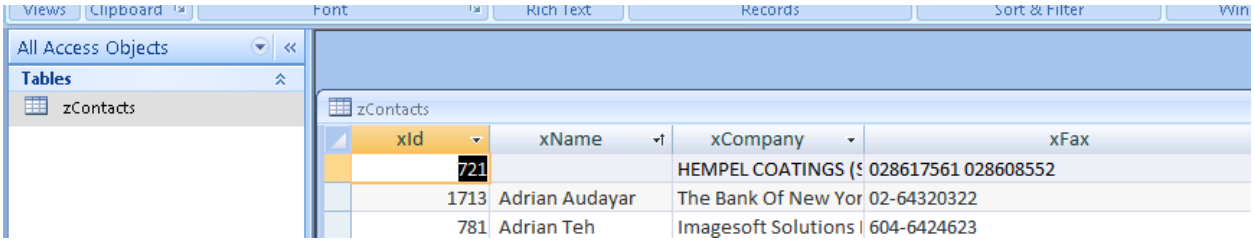
```
Provider=Microsoft.Jet.OLEDB.4.0; Data
Source=C:\addressbooks\dbAddressBook.mdb; User Id=Admin; Password=########;
```

Note: *The above connection string assumes the Microsoft Access MDB file that we're loading is located in C:\addressbooks\dbAddressBook.mdb of the EtherFAXfx server. If the MDB are located in a different folder, change the value of "`Source=`" in the connection string.*

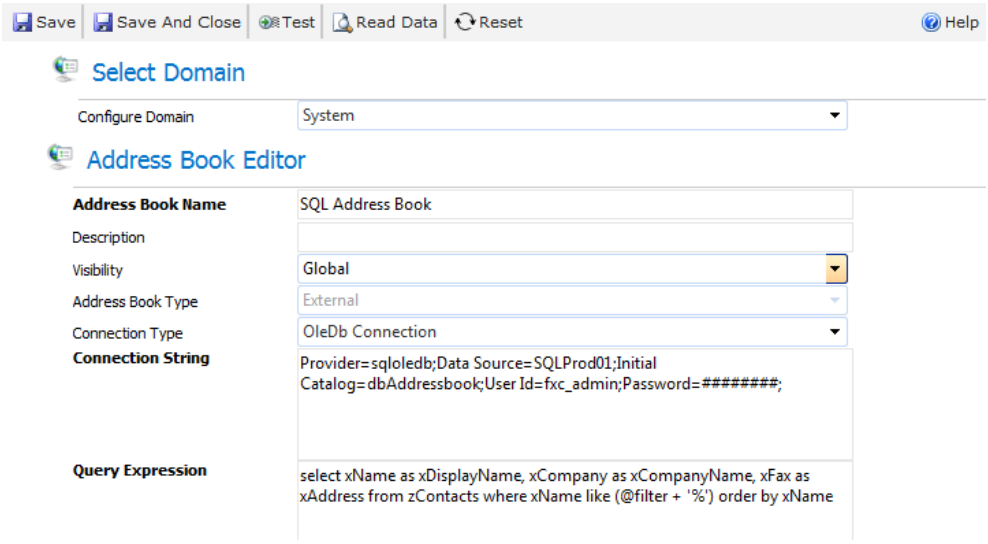
Query Expression:

```
select xId, xName as xDisplayName, xCompany as xCompanyName, xFax as xAddress
from zContacts where xName like (@filter + '%') order by xName
```

Note: *The above Query expression assumes the MDB file we're loading contain a "ZContacts" table that contains the following column xId, xName, xCompany, xFax.*



Load external contact data from SQL server



Connection String:

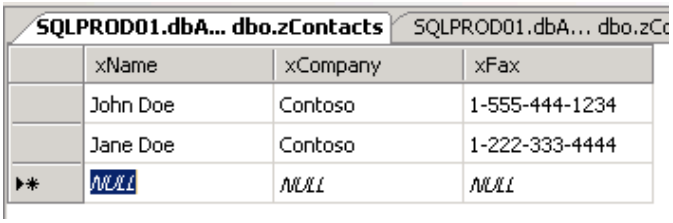
```
Provider=sqloledb;Data Source=SQLProd01;Initial Catalog=dbAddressbook;User Id=fxc_admin;Password=########;
```

Note: *The above connection string assumes the SQL Server hostname is '**SQLProd01**' and we're connecting to the SQL server with username 'fxc_admin' and password 'fxc_admin@pwd' . If the change the value of "Data `Source=`" in the connection string to point to the actual SQL server hostname and replace 'User Id' and 'Password' with the actual login credentials to the server.*

Query Expression:

```
select xName as xDisplayName, xCompany as xCompanyName, xFax as xAddress from zContacts where xName like (@filter + '%') order by xName
```

Note: *The above Query expression assumes the SQL server contains a "zContacts" table that contains the following column xName, xCompany, xFax.*



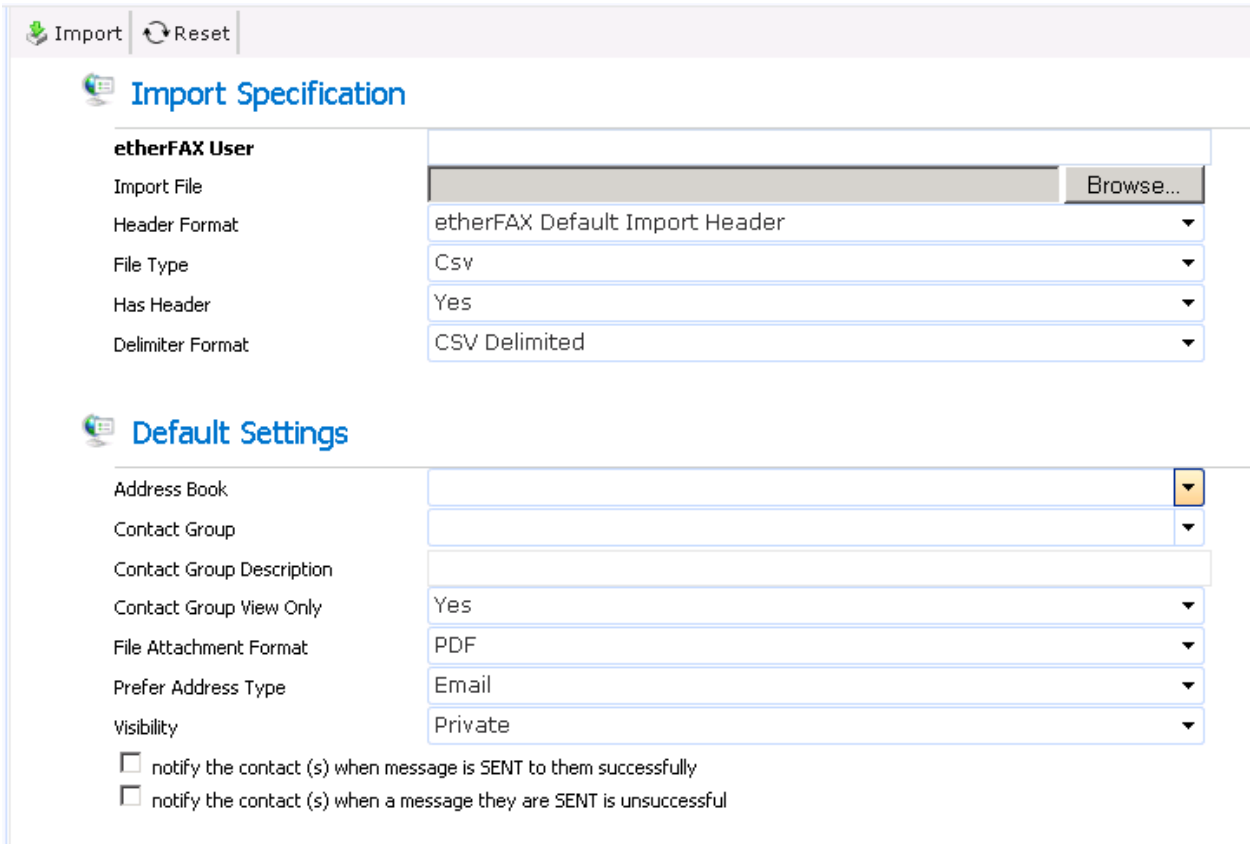
	xName	xCompany	xFax
	John Doe	Contoso	1-555-444-1234
	Jane Doe	Contoso	1-222-333-4444
▶*	NULL	NULL	NULL

Importing Contacts from CSV

System administrators and users can import contacts from an external data file into a Global/Public EtherFAXfx user address book. The import utility

- Allows the import of contacts into one or more distributed groups
- Allows the specification of common default values for fields not present in the external data file
- Supports any line-delimited flat file format, with support of XML data file in a future release.

To use this functionality, navigate to **Utilities > Import Contacts**.



Import Specification

This section lets you identify the user who owns the contact and to specify the import file and its format.

Use the **Browse** button next to the **Import File** input field to specify the file. For the format of the file, you can use the default format defined by EtherFAXfx, or you can specify your own format. In the **Header Format** input field, select **EtherFAXfx Default Import Header** to use the EtherFAXfx default, or **Custom Header** to use your own format. If you select **Custom Header**, a new input field, **Control File**, appears with a **Browse** button that lets you point to the file in which you have defined your custom layout.

The EtherFAXfx default layout header format specifies that the input fields are to be listed in the following order:

```
DisplayName, FirstName, MiddleName, LastName, CompanyName, Desc, Email,
Fax, Http, Ftp, File, Printer, Mobile, FaxRaw, Phone, CSID/CallerID
```

Where the fields have the following meanings:

Data Field Name	Description
DisplayName	Contact's display name.
FirstName	Contact's first name.
MiddleName	Contact's middle name.
LastName	Contact's last name.
CompanyName	Contact's company name.
Desc	Contact's description.
Email	Contact's email address.
Fax	Contact's fax number.
Http	Contact's http address.
Ftp	Contact's ftp address.
File	Contact's file address.
Printer	Contact's printer.

Data Field Name	Description
Mobile	Contact's mobile number.
FaxRaw	Contact's raw fax number.
Phone	Contact's phone number.
CallerID/CSID	Contact's CallerID or CSID

Suppose you create your own very simple control file that looks like this:

```
DisplayName, Email, Fax
```

Your import file might then look something like this:

```
DisplayName, Email, Fax
John Smith, jsmith@clientcompany1.com, 1-123-123-4567
Helen Brown, hbrown@clientcompany1.com, 1-222-444-5555
Martha Jones, mjones@clientcompany2.com, 1-333-444-5555
```

Note the first row, which contains the names of the fields. This is optional. You can include it for your own guidance when entering data. However, if you do include that header row, be sure to select **Yes** in the **Has header** input field, so that EtherFAXfx will ignore that first row.

Default Settings

In this section, you specify the following fields:

Address Book
Name of the new address book. The template name must be unique within the owning domain.

Contact Group
Name of the new group.

Contact Groups Description
Distribution group description if the contact group identified above is newly created during the import.

Contact Group View Only
Allow only group to view this contacts.

File Attachment Format
Default file attachment format for addresses.

Prefer Address Type

Primary delivery addresses type for the contact.

Visibility

Defines the visibility of the template to its sub domains. Setting to public allows the template to be used by sub domains.

Monitoring EtherFAXfx

EtherFAXfx Reports

You can generate the following reports online or in printed form:

- Activity Report
- Default Report
- Top 10 List

To access any of these reports, navigate to **Utilities > Reports** and then click the appropriate link on the right-hand side of the screen. A screen to let you select report parameters opens in a new window.

Creating the Report

The following applies to each of the reports:

You can use the **Export** dropdown to select from the following report formats:

- PDF
- CSV
- Excel
- RTF
- TIFF
- Web Archive

Click **Generate Report** to generate the report in your browser or the printer icon to send it to a printer.

Activity Report

On this screen, you can select a date range for the covered activity. You can use the **Report Selection** dropdown to select from the following list of activity reports:

- Total outbound
- Total inbound
- Average outbound/inbound

- Total by EtherFAXfx user
- Total by billing code
- Total by barcode
- Total by destination
- Total by CSID
- Outbound port utilization %
- Inbound port utilization %

Default Report

Generates a list of transactions based on various criteria you select – e.g., Succeed, Failed, or Both.

Top 10 List

Generates a list of the top 10 senders or recipients for a specified date range.

EtherFAXfx Queues

Message Queue

The Message Queue displays the real time status of tasks in the following queues:

- Fax
- Email
- HTTP
- FTP
- File
- Printer

To see these queues, navigate to **Network Settings > Message Queue** and then use the **Message Type** dropdown to select the queue you want to monitor.

Message Schedule

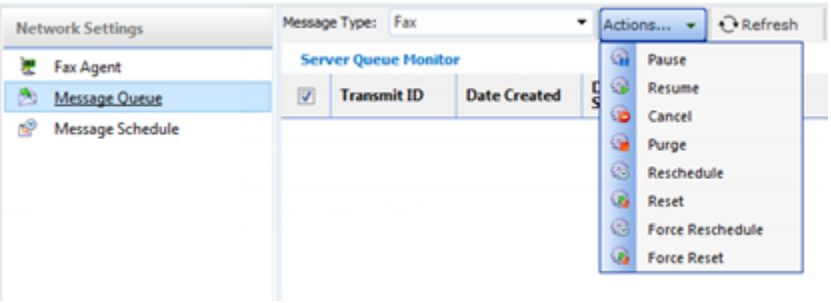
The Message Schedule displays the real time status of scheduled tasks in the following queues:

- Fax
- Email
- HTTP

- FTP
- File
- Printer

To see these scheduled tasks, navigate to **Network Settings > Message Schedule** and then use the **Message Type** dropdown to select the queue you want to monitor.

Actions available on the Message Queue/Schedule:



Pause: Pause selected message(s)
Resume: Resume selected pause message(s)
Cancel: Cancel the selected message(s)
Purge: Deletes the selected message(s) from the message queue/schedule
Reschedule: Reschedules the selected message(s) to send at a later date/time
Reset: Resets the selected message(s). This will re-evaluate the outbound routing rule and dialing rules and reset the port assignment and re-apply dialing rules
Force Reschedule: Message(s) that has been processed and cannot be re-scheduled can be Force Reschedule with this action
Force Reset: Message(s) that has been processed and cannot be Reset can be Force Reset with this action.

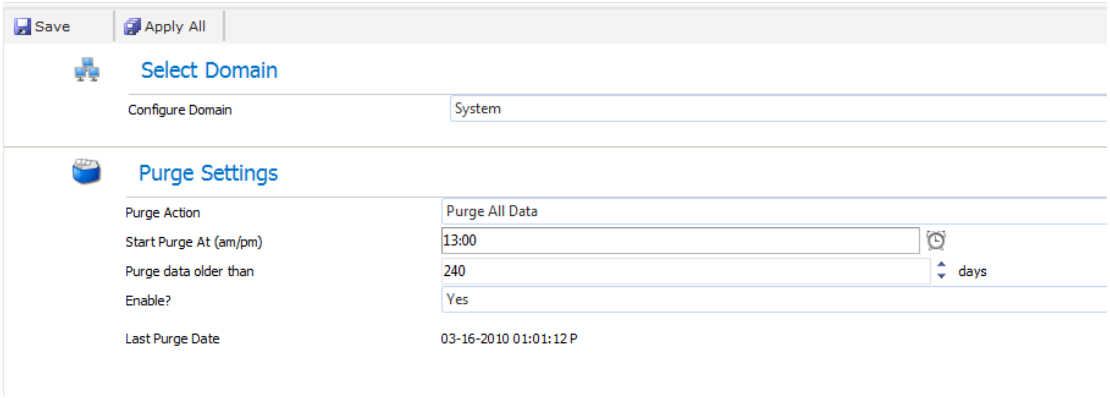
Maintenance & House Keeping

Purging Records

As EtherFAXfx data grows, it can affect the performance of the EtherFAXfx server such as disk space constrains, database indexing and search speeds. Administrator should purge old records when possible.

EtherFAXfx has a built-in Purge utility to purge old records to maintain database and data store size. To enable the Purge utility follow the steps below:

1. Navigate to **Utilities > Purge Settings**



2. Select the Domain to configure the Purge Settings for. If configuring for all, select System.
3. Configure the field below:
   Purge Action:
   Purge All Data - This action will delete data from EtherFAXfx Database and image files from EtherFAXfx Document Store
   Trim Messages - This action will only delete transactional records from EtherFAXfx Database and leave image files intact.
   Start Purge at (am/pm) – When to begin the schedule purge action.
   Purge data older than – Deletes data older than in days
   Enable? – Yes/No
4. For safety reasons, by enabling the Purge Settings alone does not actually purge data from EtherFAXfx. To enable purging, browse to the EtherFAXfx install directory and locate the file **DispatchAgent.exe.config** (example: C:\EtherFAXfx\DispatchAgent.exe.config). Open up the file with a text editor such as Notepad and locate the following line:
   `<add key="PurgeDebug" value="true"/>`

5. Change the value from “true” to “false” to read:
   `<add key="PurgeDebug" value="false"/>`
6. Save and close the text editor and restart FXC2.Dispatcher service with Windows Services console. Purge settings are now fully enabled and the next purge will take place on the next scheduled time.

Note: *Purging process does not happen instantly. EtherFAXfx checks on the Purge Settings in a 30 minutes interval.*

Backup & Restoring EtherFAXfx SQL Database

The Database Backup Guide

This chapter describes the various methods available to begin creating and managing backups of your EtherFAXfx SQL database.

SQL Server Management Studio - Express Edition

1. Launch the *SQL Server Management Studio Express* utility on your database server and authenticate yourself by providing the required credentials to establish a connection to your EtherFAXfx database server.
2. Upon successfully authenticating, expand the *Databases* folder from within your object explorer panel to display the list of hosted database.
3. Right click your EtherFAXfx database and select Tasks > Back Up to configure the available backup parameters for your database. **Figure 1.0.0**
4. Lastly select the *Options* page to append additional options to your database backup job. **Figure 2.0.0**

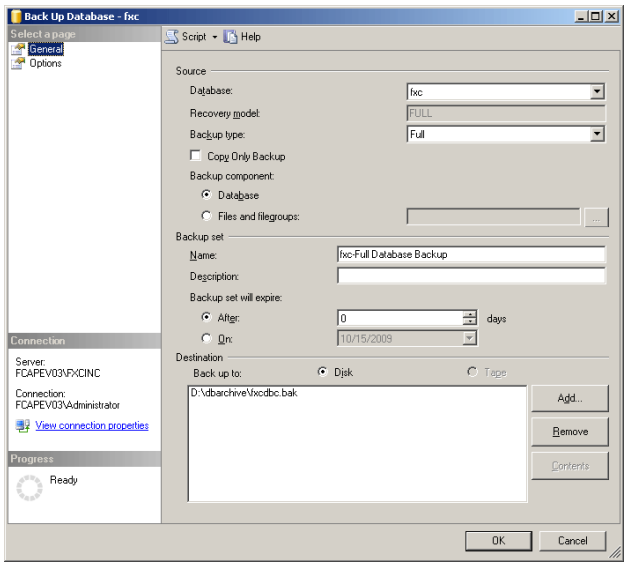


Figure 1.0.0 - General Parameter Backup Window

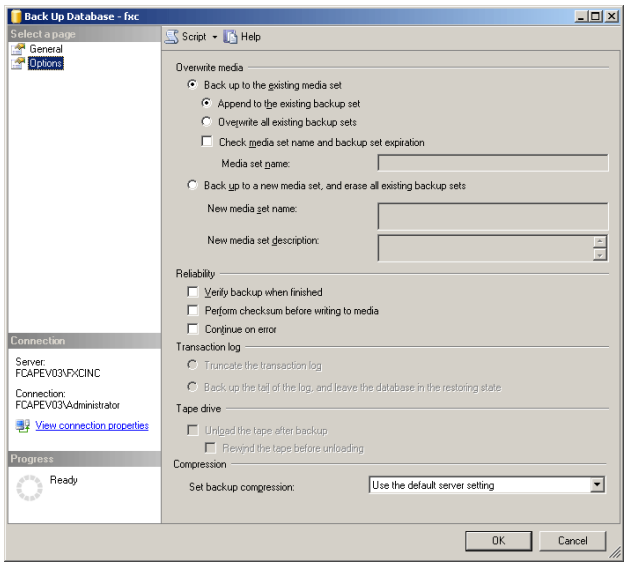


Figure 2.0.0 – Options Parameter Backup Window

Note: EtherFAXfx Enterprise environments are pre-installed with *Microsoft SQL Server Standard Edition* hence, has the functionality to create and schedule automatic backups using the *SQL Server Agent* services. Please note the *SQL Server Agent* service isn't enabled by default therefore must be initiated manually for the first time via the *Windows Services Management Console* and subsequently configured to start-up automatically.

SQL Server Management Studio - SQL Server Agent

1. Launch the *SQL Server Management Studio* utility on your database server and authenticate yourself by providing the required credentials to establish a connection to your EtherFAXfx database server.
2. Upon successfully authenticating yourself, expand the *SQL Server Agent* service from within your object explorer panel to display the *Jobs* folder.
3. Right click the *Jobs* folder and select *New Job* to display the *New Job* window. Select the *General* page to configure the backup parameters for your EtherFAXfx database. **Figure 3.0.0**
4. Then while still displaying the *New Job* window, select the *Schedule* page to configure a scheduled routine for the backup job. **Figure 4.0.0**
5. Upon finalizing the backup parameters, click OK to save and apply your scheduled backup routine. A title summary of your backup job will be presented under the *SQL Server Agent* > *Jobs* folder list.

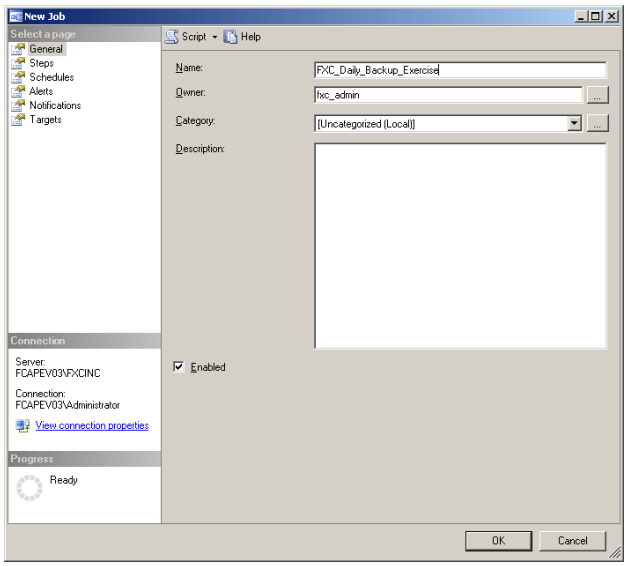


Figure 3.0.0 - Backup Job Window

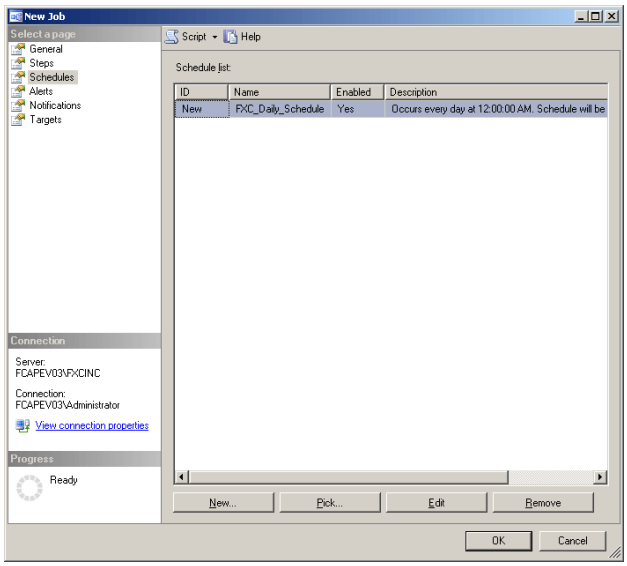


Figure 4.0.0 - Scheduling Job Window

SQL Server Management Studio - Maintenance Plan

1. Launch the *SQL Server Management Studio* utility on your database server and authenticate yourself by providing the required credentials to establish a connection to your EtherFAXfx database server.
2. Upon successfully authenticating yourself, expand the *Management* folder from within your object explorer panel to display the *Maintenance Plan* folder.
3. Right click the *Maintenance Plan* folder and select *New Maintenance Plan* to create a backup plan. Double click the *Back Up Database Task* from the toolbox and configure the backup parameters respectively. **Figure 5.0.0**
4. Then while still displaying the *Maintenance Plan* window, click the *Schedule* button to configure a scheduled routine for the backup plan. **Figure 6.0.0**
5. Upon finalizing the backup parameters, click OK to save and apply your scheduled backup routine. A title summary of your backup plan will be presented under the *Management > Maintenance Plan* folder.

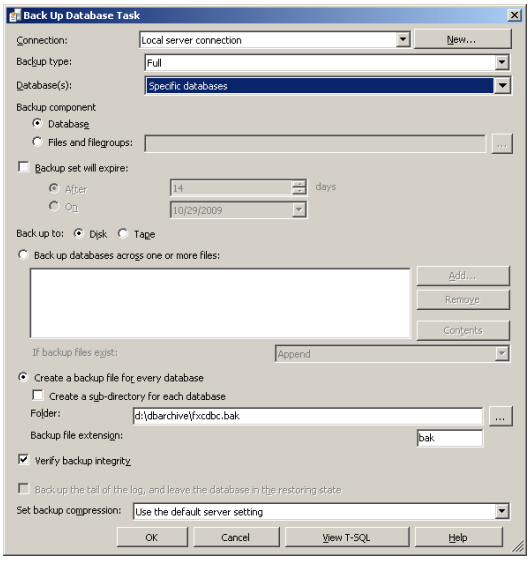


Figure 5.0.0 - Backup Job Window

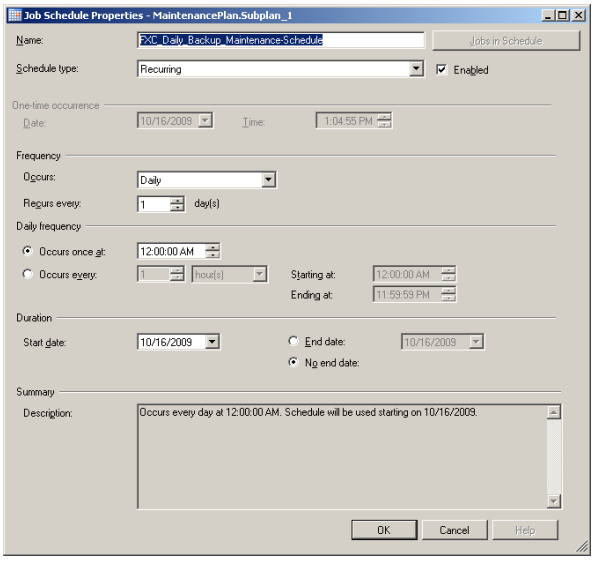


Figure 6.0.0 - Scheduling Job Window

SQLCMD/OSQL Command Line Utility

1. From your EtherFAXfx database host server, launch the command prompt and change the current active directory view to the "*Binn"* folder within your *Microsoft SQL Server* installation directory. **Example**: "*C:\Program Files\Microsoft SQL Server\MSSQL.1\Binn*"
2. Following the reference parameters below, provide the required details for the fields: ***dbusername, dbpassword*** and ***dbserver,port*** to initiate the backup process.

OSQL Option	SQLCMD Option
OSQL -S dbserver,port -U dbusername -P dbpassword *<Enter>*	***SQLCMD -S dbserver,port -U dbusername -P dbpassword*** *<Enter>*
BACKUP DATABASE [fxc] TO DISK="C: \FXCDBBAK\fxc.bak" *<Enter>*	***BACKUP DATABASE [fxc] TO DISK="C:\FXCDBBAK\fxc.bak"*** *<Enter>*
GO *<Enter>*	***GO*** *<Enter>*
EXIT *<Enter>*	***EXIT*** *<Enter>*

Note: *The reference parameters above by no means provide a comprehensive backup solution therefore it's highly advised that you peruse the available commands/syntax to customize your backup script accordingly.*

3. To create automated backups, the above mentioned parameters can be scripted in a batch script and scheduled to run at specific intervals using a task scheduler.

Application/Database Backup Manager

Organization that employs the services of an enterprise level backup application manager may have the option of extending its functionality to create, maintain and restore backups of MSSQL type database.

However such extension differs according to version and manufacturer therefore it's highly recommended the product vendor be consulted for further clarification.

The Database Restore Guide

This chapter describes the various methods available to manage and restore the database from your EtherFAXfx SQL database backups.

SQL Server Management Studio

Note: Prior to attempting the following steps below, please contact EtherFAXfx Support to obtain the required EtherFAXfx database login credentials to facilitate the database restoring process.

1. Launch the *SQL Server Management Studio* utility on your database server and authenticate yourself by providing the required details to establish connection to your EtherFAXfx database server.
2. Upon successfully authenticating yourself, right click the *Databases* folder within your object explorer panel and select *Restore Database* to display the *Restore Database* window.
3. Based on the backup to file option, check *From Device* and browse the folder containing the backup file that ends with extension; **.BAK* then check the required backup sets to restore. **Figure 7.0.0**
4. Next while still displaying the *Restore Database* window; select the *Options* page to configure additional restore parameters. **Figure 8.0.0**
5. Upon finalizing the restore parameters, click OK to begin the restore process where upon completion, your EtherFAXfx database will present itself under the *Databases* folder from within your object explorer panel.

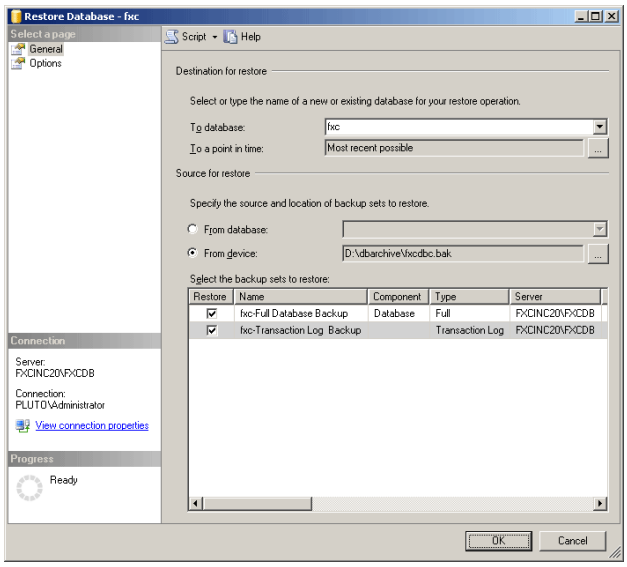


Figure 7.0.0 - Restore Database Window

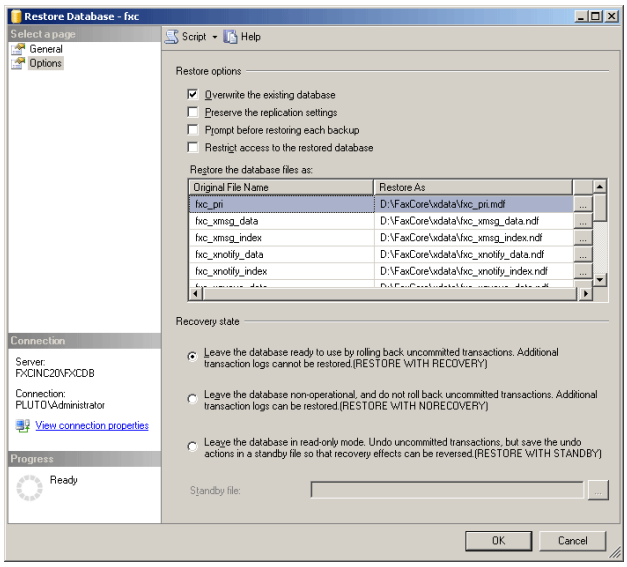


Figure 8.0.0 - Restore Options Window

6. Next, from within your object explorer panel, expand the restored EtherFAXfx database and browse the *Security* > *Users* subdirectory and proceed to delete the following user: **fxc_admin**
7. Next, from within your object explorer panel, right click the SQL instance's *Security* > *Logins* subdirectory and select *New Login* to display the *Login - New* window.
8. Select the *General* page to create an account utilizing the credentials obtained from EtherFAXfx support. Ensure the *Enforce Password Policy* option is unchecked and *Default Database* option is mapped to the restored database.
9. Select the *User Mapping* page and map the user account to the restored EtherFAXfx database. Ensure the *Database Role Membership* for the user account is as follow: **public** & **db_owner** and click OK to begin creating the user account.

Lastly, from within your object explorer panel, expand the restored EtherFAXfx database and browse the Security > User subdirectory and proceed to double click the following user: **fxc_admin** to display its account properties. Select the *General* page and under the *Database Role Membership* option, ensure **db_owner** is checked and click OK to complete the database mapping process.

SQLCMD/OSQL Command Line Utility

1. From your EtherFAXfx database host server, launch the command prompt and change the current active directory view to the *"Binn"* folder within your Microsoft SQL Server installation directory. Example: *"C:\Program Files\Microsoft SQL Server\MSSQL.1\Binn"*

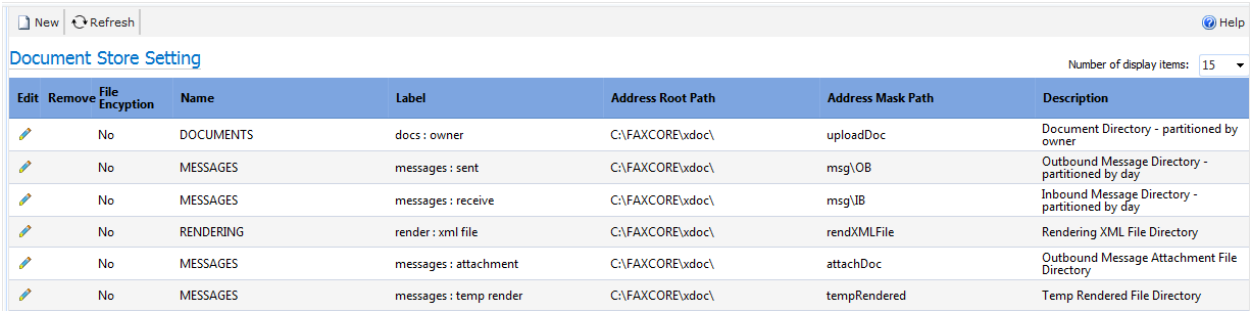
2. Following the reference parameters below, provide the required details for the fields: ***dbusername***, ***dbpassword*** and **dbserver,port** to initiate the backup process.

OSQL Option	SQLCMD Option
OSQL -S dbserver,port -U dbusername -P dbpassword *<Enter>* ***RESTORE DATABASE [fxc] FROM DISK="C:\fxcdb.bak"*** *<Enter>* ***GO*** *<Enter>* ***EXIT*** *<Enter>*	***SQLCMD -S dbserver,port -U dbusername -P dbpassword*** *<Enter>* ***RESTORE DATABASE [fxc] FROM DISK="C:\fxcdb.bak"*** *<Enter>* ***GO*** *<Enter>* ***EXIT*** *<Enter>*

Note: *The reference parameters above by no means provide a comprehensive backup solution therefore it's highly recommended that you peruse the available commands/syntax to customize your backup script accordingly.*

Backup & Restoring EtherFAXfx Document Stores

To back up EtherFAXfx document stores, backup the folders from the locations shown in **Global Settings > Document Stores**



Edit	Remove	File Encyption	Name	Label	Address Root Path	Address Mask Path	Description
		No	DOCUMENTS	docs : owner	C:\FAXCORE\xdoc\	uploadDoc	Document Directory - partitioned by owner
		No	MESSAGES	messages : sent	C:\FAXCORE\xdoc\	msg\OB	Outbound Message Directory - partitioned by day
		No	MESSAGES	messages : receive	C:\FAXCORE\xdoc\	msg\IB	Inbound Message Directory - partitioned by day
		No	RENDERING	render : xml file	C:\FAXCORE\xdoc\	rendXMLFile	Rendering XML File Directory
		No	MESSAGES	messages : attachment	C:\FAXCORE\xdoc\	attachDoc	Outbound Message Attachment File Directory
		No	MESSAGES	messages : temp render	C:\FAXCORE\xdoc\	tempRendered	Temp Rendered File Directory

Appendix A – Configuration Tokens

Configuration tokens derive values from user and domain configuration options. Configuration tokens begin with the prefix CONFIG. In all tokens below, the data for the tokens are resolved from the values (overridden or inherited) in the configuration settings screens – e.g., general settings, receive settings, domain configuration settings.

Configuration Tokens	
CONFIG.COMPANY_ADDRESS_CITY	Domain Company Address City
CONFIG.COMPANY_ADDRESS_COUNTRY	Domain Company Address Country
CONFIG.COMPANY_ADDRESS_POSTAL	Domain Company Address Postal
CONFIG.COMPANY_ADDRESS_STATE	Domain Company Address State
CONFIG.COMPANY_ADDRESS_STREET1	Domain Company Address Street 1
CONFIG.COMPANY_ADDRESS_STREET2	Domain Company Address Street 2
CONFIG.COMPANY_ADDRESS_STREET3	Domain Company Address Street 3
CONFIG.COMPANY_NAME	Domain Company Name
CONFIG.FAX.DIAL_PREFIX	Domain Fax Dial Prefix
CONFIG.FAX.DIAL_SUFFIX	Domain Fax Dial Suffix
CONFIG.FAX.LOCAL_CALLER_ID	Domain Fax Local Caller ID
CONFIG.FAX.LOCAL_CSID	Domain Fax Local CSID
CONFIG.FAX.LOCAL_NUMBER	Domain Fax Local Number
CONFIG.FAX.XMIT_FOOTER	Domain Fax Transmission Footer
CONFIG.FAX.XMIT_HEADER	Domain Fax Transmission Header

Configuration Tokens	
CONFIG.GENERAL.DELIVERY_FROM	General Delivery From
CONFIG.GENERAL.FXC_HTTP_MODE	General FXC HTTP
CONFIG.GENERAL.FXC_PORT	General FXC Port
CONFIG.GENERAL.FXC_SERVER	General FXC Server
CONFIG.GENERAL.NOTIFICATION_FROM	General Notification From
CONFIG.GENERAL.PASSWORD_SENDER_FROM	General Password Sender From
CONFIG.GENERAL.URL_MESSAGE_VIEWER	General URL Message Viewer
CONFIG.SERVER.URL	General Server Full URL
CONFIG.TELCO.DIAL_RULES_AREA_CODE	Domain Area Code
CONFIG.TELCO.DIAL_RULES_COUNTRY_CODE	Domain Country Code

Appendix B – Message Tokens

Message Tokens derive values from properties of a sent or received message (fax) – e.g., # of pages, remove fax number, transmit time, etc. Message tokens begin with the prefix MESSAGE.

Note: *in the table below,* **(MULTI-VALUED)** *indicates if the token is multi-valued, and can be used with an extended Syntax. Refer to* ***Token Extended Syntax*** *for proper usage.*

Message Tokens	
MESSAGE.APPROVAL.DESC	Message Approval Description
MESSAGE.APPROVAL.REPLY	Message Approval Reply
MESSAGE.BARCODE	Message Bar Code **(MULTI-VALUED)**
MESSAGE.BILLING_CODE	Message Billing Code
MESSAGE.CREATE_DATE	Message Create Date
MESSAGE.CREATE_DATE_TIME	Message Create Date Time
MESSAGE .CREATE_TIME	Message Create Time
MESSAGE.DATE	Message Schedule Date
MESSAGE.DATE_TIME	Message Schedule Date Time
MESSAGE.FROM_COMPANY_NAME	Message Sender Company Name
MESSAGE.FROM_NAME	Message Sender Name
MESSAGE.ID	Message ID
MESSAGE.IS_OUTBOUND	Message Inbound or Outbound
MESSAGE.IS_SUCCESS	Message Status
MESSAGE.NOTE	Message Note

Message Tokens	
MESSAGE.NUMBER	Message Number
MESSAGE.OWNER_DOMAIN_ID	Message Owner Domain ID
MESSAGE.OWNER_DOMAIN_NAME	Message Owner Domain Name
MESSAGE.OWNER_USER_ID	Message Owner User ID
MESSAGE.OWNER_USERNAME	Message Owner UserName
MESSAGE.RECIPIENT_LIST	Message Recipient List **(MULTI-VALUED)**
MESSAGE.REFERENCE_NUMBER	Message Reference Number
MESSAGE.SENDER_COMPANY_NAME	Message Sender Company Name
MESSAGE.SENDER_NAME	Message Sender Name
MESSAGE.STATUS	Message Overall Status
MESSAGE.SUBJECT	Message Subject
MESSAGE.TIME	Message Create Time
MESSAGE.TRACKING_KEY	Message Tracking Key **(MULTI-VALUED)**
MESSAGE.TRANSACTION_COUNT	Message Transaction(s) Count
MESSAGE.TRANSACTION_COUNT_CANCELLED	Message Transaction(s) Cancelled
MESSAGE.TRANSACTION_COUNT_COMPLETED	Message Transaction(s) Completed
MESSAGE.TRANSACTION_COUNT_FAILED	Message Transaction(s) Failed
MESSAGE.TRANSACTION_COUNT_IN_PROCESS	Message Transaction(s) In Process
MESSAGE.XSACT.ADDRESS_FORMAT_TYPE	Message Transaction Address Format Type
MESSAGE.XSACT.ATTEMPT_COUNT	Message Transmission Attempt Count
MESSAGE.XSACT.COMPLETE_DATE	Message Transaction Complete Date
MESSAGE.XSACT.COMPLETE_DATE_TME	Message Transaction Complete Date Time

Message Tokens	
MESSAGE.XSACT.COMPLETE_TIME	Message Transaction Complete Time
MESSAGE.XSACT.DISPLAY_ADDRESS	Message Transaction Display Address
MESSAGE.XSACT.IMAGE_PATH	Message Transaction Image Path
MESSAGE.XSACT.IS_SUCCESS	Message Transaction Successful Or Not
MESSAGE.XSACT.NOTIFY.FROM_NAME	Message Notification Transaction Sender
MESSAGE.XSACT.NOTIFY.TRANSACTION_ID	Message Notification Transaction ID
MESSAGE.XSACT.NUMBER_PAGES_SENT	Message Transaction Total Sent Page
MESSAGE.XSACT.RECIPIENT_COMPANY_NAME	Message Transaction Recipient Company Name
MESSAGE.XSACT.RECIPIENT_NAME	Message Transaction Recipient Name
MESSAGE.XSACT.STATUS	Message Transaction Status
MESSAGE.XSACT.TRANSACTION_ID	Message Transaction ID
MESSAGE.XSACT.XMIT.AGENT_ID	Message Transmission Agent ID
MESSAGE.XSACT.XMIT.CALLED_NUMBER	Message Transmission Called Number
MESSAGE.XSACT.XMIT.CALLER_ID	Message Transmission Caller ID
MESSAGE.XSACT.XMIT.PORT_NO	Message Transmission Port No
MESSAGE.XSACT.XMIT.REMOTE_CSID	Message Transmission Remote CSID
MESSAGE.XSACT.XMIT.ROUTE_DIGITS	Message Transmission Routing Digits
MESSAGE.XSACT.XMIT.SERVER_NAME	Message Transmission Server Name
MESSAGE.XSACT.XMIT.STATUS	Messages Transmission Status
MESSAGE.XSACT.XMIT_CALL_TIME	Message Transmission Total Time
MESSAGE.XSACT.XMIT_ERROR_DESC	Message Transmission Error Description
MESSAGE.XSACT.XMIT_ERROR_ID	Message Transmission Error ID

Message Tokens	
MESSAGE.XSACT.XMIT_ERROR_INFO	Message Transmission Error Info
MESSAGE.XSACT.XMIT_TIME	Message Transmission Time
MESSAGE.XSACT_PAGE_COUNT	Message Transaction Page Count

Appendix C – User Tokens

User Profile Tokens derive values from the user profile (see User Profile Configuration) including username, display name, last and first name, etc. User profile tokens begin with the prefix: *USER*.

Note: *in the table below,* ***MULTI-VALUED*** *indicates if the token is multi-valued, and can be used with an extended Syntax. Refer to* ***Token Extended Syntax*** *for proper usage.*

User Token	
USER.COMPANY_CITY	User Company City
USER.COMPANY_COUNTRY	User Company Country
USER.COMPANY_NAME	User Company Name
USER.COMPANY_POSTAL	User Company Postal
USER.COMPANY_STATE	User Company State
USER.COMPANY_STREET_1	User Company Street 1
USER.COMPANY_STREET_2	User Company Street 2
USER.COMPANY_STREET_3	User Company Street 3
USER.DISPLAY_NAME	User Display Name
USER.DOMAIN_DESC	Domain Description
USER.DOMAIN_ID	Domain ID
USER.DOMAIN_NAME	User Domain Name
USER.FAX.LOCAL_CALLER_ID	User Local Caller ID
USER.FAX.LOCAL_CSID	User Local CSID

USER.FAX.LOCAL_NUMBER	User Local Number
USER.FIRST_NAME	User First Name
USER.LAST_NAME	User Last Name
USER.MIDDLE_NAME	User Middle Name
USER.LIST.EMAIL	User Own Email List **(MULTI-VALUED)**
USER.LIST.FAX	User Own Fax List **(MULTI-VALUED)**
USER.LIST.MOBILE_PHONE	User Own Mobile Phone List **(MULTI-VALUED)**
USER.LIST.PHONE	User Own Phone List **(MULTI-VALUED)**
USER.PRIMARY.MOBILE_PHONE	User Primary Mobile Phone
USER.PRIMARY_EMAIL	User Primary Email
USER.PRIMARY_FAX	User Primary Fax
USER.PRIMARY_PHONE	User Primary Phone
USER.ROLE_ID	User Role ID
USER.USERID	User ID
USER.USERNAME	User UserName

Appendix D – Utility Tokens

User Profile Tokens derive values from the user profile (see User Profile Configuration) including username, display name, last and first name, etc. User profile tokens begin with the prefix: *UTIL.*

Utility Token	
UTIL.DATE	System Utility Date only
UTIL.DATE_TIME	System Utility Date Time
UTIL.TIME	System Utility Time only

Token Extended Syntax

The extended syntax is used for token that will return a string of concatenated values along with separator such as "**,**" and "**;**" or intended to override the existing format.

Sample syntax: **$$<token name>|<value array pointer>|<separator>|<format info>$$**

Syntax	Description	Sample Data:
Token name	The name of the token	MESSAGE.TRACKING_KEY
Value Index Pointer	Index pointer on which value to retrieve. First index value is always 0 (zero). Leave it empty if to show all.	1
Separator	Separator used to split the concatenated values.	,
Format info	All tokens use generic default formats that are culture-aware. Use this property only if you want to override the default format.	MM/dd/yyyy

Example 1:

Retrieve the 2nd tracking value of a specific message/fax:

$$MESSAGE.TRACKING_KEY|1|,|$$

Example 2:

Retrieve the date of the message created with a defined format:

$$MESSAGE.CREATE_DATE|||MM/dd/yyyy$$

Format Info	Supported Syntax	Legends
Date Format	**yyyy-MM-dd** **yyyy-dd-MM** **MM-dd-yyyy**	**yyyy** = Year **MM** = Month **dd** = Day

Format Info	Supported Syntax	Legends
	dd-MM-yyyy **yyyy/MM/dd** **yyyy/dd/MM** **MM/dd/yyyy** **dd/MM/yyyy**	
Time Format	**hh:mm:ss tt** **hh:mm:ss t** **HH:mm:ss**	**hh** = 12 hour **HH** = 24 hour **mm** = minute **ss** = second **tt** = AM/PM **t** = A/P

Appendix E – Gateway Specifications

Embedded Codes

Embedded codes works by embed EtherFAXfx readable codes in content of file, where the service will pick up and process it, remove it from the content (based on configuration), and push the content to EtherFAXfx. This works for text based content only.

Embedded Codes for PCL

This gateway works in the same concept as above but the codes are embedded into PCL content. This gateway supports both text and binary based PCL content, but the codes must be in readable format (text).

Embedded Codes for PDF

This gateway works in the same concept as above but the codes are embedded into PDF file. This gateway supports both text and binary based PDF content, but the codes must be in readable format (text) before the %PDF header.

Embedded Code Commands

This section lists the codes and syntax that EtherFAXfx detects in the print stream or file. EtherFAXfx's parser functionality behaves like a print stream filter, removing all embedded information and writing the original print data to an output file for further processing. All embedded codes detected in a print stream are translated into fax or email destination structures.

Note: The sequence of embedded codes must start with ^[and end with ^]
Additional designators can be added immediately following the preceding text.
Designators are Case Sensitive.

B

Billing Code
Lets you enter a Billing code for the message
Example:

```
^[BBillCode1234^]
```

C

Cover Page Notes
Lets you enter text into the Notes field of a cover page.
Example:

```
^[CThis message will be in the notes section of the cover page^]
```

D

Destination fax number or destination email address.
(Required field)
Indicates the destination address for the document.
The format for this designator is as follows: Country Code followed by the remaining numbers.
For example, North American fax numbers are a total of 11 digits.
Examples:

```
^[D17208704141^]
^[Djohndoe@contoso.com^]
```

- to send to an email address

E

Exclude Cover Page
Lets you exclude sending a cover page with the message (**True** or **False**)
Example:

```
^[ETrue^]
```

M

Cover Page Subject
Lets you enter text into the Subject field of a cover page.
Example:

```
^[MSubject Message^]
```

N

Recipient's display name
Lets you enter text into the To field of a cover page.
Example:

```
^[NJohn Jones^]
```

G

Recipient's Company Name
Lets you enter text into the To field of a cover page.
Example:

```
^[GContoso Inc.^]
```

K

Tracking key.
Lets you enter a tracking key to the fax for indexing/search.
Example:

```
^[KMessageTracking^]
```

O

User name of the originator of the job
(Required field – unless Allow anonymous is "Enabled", then if O is not specified the anonymous user will be used to send the message)
Indicates what EtherFAXfx user is associated with the sent fax. Depending on the user settings of the user, this also enables a cover page to be sent with the fax.
Example:

```
^[Oecuser^]
```

P

Message Priority
Lets you define the priority of the message being sent (1-100)

```
^[P100^]
```

S

Sender's name (used as a "fax from" designation).
Lets you enter text in the From field of a cover page.
Example:

```
^[SJohn Jones^]
```

T

Scheduled date and time.
Lets you schedule a fax to be sent at a later time.
Example:

```
^[T01/01/98 2:00p^]
```

Y

Include default cover page
Lets you specify whether to include the originator/user's (specified with O) default cover page (**True** or **False**)
Example:

```
^[YTrue^]
```

Z

Cover page name
Lets you specify a specific cover page to use with the message
Example:

```
^[ZDefault Cover Page^]
```

Example of an Embedded Code Sequence:

```
^[D 17208704141^[M Purchase Order 110011^[N John Jones^[C This is a
test fax!^[O lsmith^[SLinda Smith^[T 05/21/05 1:00p^]
```

EtherFAXfx interprets this sequence as follows:

The document will be delivered by fax to: +1 (720) 870-4141
The Subject field on the cover page contains the following text: Purchase Order 110011
The To field on the cover page contains the following text: John Jones
The Notes field on the cover page contains the following text: This is a test fax!
The user that sent the fax is lsmith
The From field on the cover page contains the following text: Linda Smith
The fax is to be sent on May 21st, 2005 at 1 PM.

Note: *Designators/codes are case sensitive. Any designators/codes that are not on the list will be treated as additional tracking keys. Example:*

```
^[ATrackingKey#2^]
```

Control File

This gateway work on a concept of dropping a control file along with attachments to a predefined folder. The service will pick up the control file and process the content before pushing the data to EtherFAXfx. Control file has to be in text based format. Binary control file is not supported.

The EtherFAXfx control file gateway uses **`name:value`** style format. The following fields can be specified in the control file.

The following fields should be specified once.

Field Name	Description	Data Type	Required
subject	Subject of the message. Used by cover pages.	String	no
notes	Notes of the message. Used by cover pages.	String	no
trackingKey	Tracking key that can be used to track the message.	String	no
priority	Priority that the request will get processed.	Integer	no
senderName	Sender name. Used by cover pages.	String	no
senderCompany	Sender company. Used by cover pages.	String	no
senderAddress	Sender fax, phone, or email address. Used by cover pages	String	no
billingCode	Billing code to associate with the request. Used in billing reports.	String	No
coverPageName	Name of the EtherFAXfx stored cover page (case sensitive) to use for the fax.	String	no
userName	The EtherFAXfx username with which to send the message. The profile set up for the	String	Yes if a defaultUser

	EtherFAXfx user will be used in the general processing of the fax.		Name is not specified in the profile.
nocover	Indicates to not use any cover page, even if specified by the EtherFAXfx user profile. Set to 1 to omit cover pages.	Integer	no

The following fields can be specified multiple times.

Field Name	Description	Data Type	Required
recipientName	Recipient name. Used by cover pages.	String	no
recipientCompany	Recipient company. Used by cover pages.	String	no
recipientAddress	Recipient fax number	String	yes
filename	Relative path of the associated document or image (tif/pdf) file. Can specify multiple filenames fields.	String	yes
notification	A notification to attach to the message.	String	no

The following is a sample of a working control file that will create a single message with 4 fax deliveries:

```
Filename:testFax.tif

Subject:Test Subject
notes:Test Notes
trackingKey:T12345
nocover:1

senderName:Joe Smith
senderCompany:BEI
senderAddress:18583622640

recipientName:John Smith
recipientCompany:EtherFAXfx
recipientAddress:18665551111
```

```
recipientName:Jim Smith
recipientCompany:EtherFAXfx
recipientAddress:18665552222

recipientAddress:18665553333
recipientAddress:18665554444
```

HP Digital Sender

This gateway works in the same concept as control file but the files are coming from HPDS. This gateway supports HPDS codes and processes it before pushing to EtherFAXfx.

SAP

This gateway takes in control file drop from SAP. This is a different gateway process from file gateway. Please refer to SAP integration documentation for more info.

FujiXerox XST

This gateway support file drop from FujiXerox MFPs. XST file is job template configuration set at MFP and perform scan and drop image + XST file to a network folder or FTP. For more info on the job template configuration please refer to FujiXerox MFP integration document.

Oracle

This gateway accept control file from Oracle service. The concept is the same with control file gateway.

Xerox DOC XST

This gateway support file drop from Xerox MFP only. This is different from FujiXerox implementation due to Xerox MFP drop a folder containing files instead of just XST file and images. There is a build in

relay processor in this gateway to digest the DOC.XSM folder and extract the content and push it to EtherFAXfx.

Custom Gateway Setup [v5.2.1.15 and above]

Custom gateway provides option for user to create multiple gateway of the same type. This allows flexibility for user to have multiple same gateways type for different purpose.

In order to support custom gateway, changes must be made to GatewayAgent.exe.config file with additional settings for custom gateways.

Screen below illustrates a new configuration file with custom gateway settings. Green highlighted section contains existing/default settings and yellow highlighted sections contain new for custom gateways.

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <configSections>
    <sectionGroup name="Gateways">
      <section name="TYPE"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="controlFile"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="embeddedCodes"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="embeddedCodesPcl"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="embeddedCodesPDF"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="hpDigitalSender"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="SAP"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="FujiXeroxXST"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="Oracle"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="Xerox"
type="System.Configuration.NameValueSectionHandler"/>
    </sectionGroup>
    <sectionGroup name="Customs">
      <section name="Xerox1"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="Xerox2"
type="System.Configuration.NameValueSectionHandler"/>
      <section name="Xerox3"
type="System.Configuration.NameValueSectionHandler"/>
    </sectionGroup>
    <section name="log4net"
type="log4net.Config.Log4NetConfigurationSectionHandler, log4net"/>
```

```
    <sectionGroup name="applicationSettings"
type="System.Configuration.ApplicationSettingsGroup, System, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089" >
      <section name="GatewayAgent.Properties.Settings"
type="System.Configuration.ClientSettingsSection, System, Version=2.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089" requirePermission="false"
/>
    </sectionGroup>
  </configSections>
  <log4net>
    <appender name="RollingLogFileAppender"
type="log4net.Appender.RollingFileAppender">
      <file value="log\GatewayAgentLog.txt" />
      <appendToFile value="true" />
      <datePattern value="yyyyMMdd" />
      <rollingStyle value="Composite" />
      <maxSizeRollBackups value="10" />
      <maximumFileSize value="5MB" />
      <layout type="log4net.Layout.PatternLayout">
        <conversionPattern value="%date [%thread] %-5level %logger -
(%file:%line) - %m%n" />
      </layout>
    </appender>
    <root>
      <level value="ALL" />
      <appender-ref ref="RollingLogFileAppender" />
    </root>
  </log4net>
  <Customs>
    <Xerox1>
      <add key="type" value="Xerox" />
      <add key="baseDirectory" value="xgateway\xerox"/>
      <add key="inboxDirectory" value="xgateway\xerox\inbox"/>
      <add key="relayDirectory" value="xgateway\xerox\relay"/>
      <add key="processDirectory" value="xgateway\xerox\process"/>
      <add key="processedDirectory" value="xgateway\xerox\processed"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="userNamePrefix" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.ctl"/>
      <add key="inputFileType" value="TIF"/>
      <add key="faxAsRaw" value="1"/>
      <add key="replacements" value="recipientAddress|string
MetaDataValue^subject|string JobTemplateDescription"/>
      <add key="includeSenderNotification" value="1"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </Xerox1>
    <Xerox2>
      <add key="type" value="Xerox" />
      <add key="baseDirectory" value="xgateway\xerox"/>
      <add key="inboxDirectory" value="xgateway\xerox\inbox"/>
      <add key="relayDirectory" value="xgateway\xerox\relay"/>
      <add key="processDirectory" value="xgateway\xerox\process"/>
      <add key="processedDirectory" value="xgateway\xerox\processed"/>
      <add key="defaultUsername" value="Admin"/>
```

```
      <add key="userNamePrefix" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.ctl"/>
      <add key="inputFileType" value="TIF"/>
      <add key="faxAsRaw" value="1"/>
      <add key="replacements" value="recipientAddress|string
MetaDataValue^subject|string JobTemplateDescription"/>
      <add key="includeSenderNotification" value="1"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </Xerox2>
    <Xerox3>
      <add key="type" value="Xerox" />
      <add key="baseDirectory" value="xgateway\xerox"/>
      <add key="inboxDirectory" value="xgateway\xerox\inbox"/>
      <add key="relayDirectory" value="xgateway\xerox\relay"/>
      <add key="processDirectory" value="xgateway\xerox\process"/>
      <add key="processedDirectory" value="xgateway\xerox\processed"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="userNamePrefix" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.ctl"/>
      <add key="inputFileType" value="TIF"/>
      <add key="faxAsRaw" value="1"/>
      <add key="replacements" value="recipientAddress|string
MetaDataValue^subject|string JobTemplateDescription"/>
      <add key="includeSenderNotification" value="1"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </Xerox3>
  </Customs>
  <Gateways>
    <TYPE>
      <add key="controlFile" value="1"/>
      <add key="embeddedCodes" value="1"/>
      <add key="embeddedCodesPcl" value="1"/>
      <add key="embeddedCodesPDF" value="1"/>
      <add key="hpDigitalSender" value="0"/>
      <add key="SAP" value="1"/>
      <add key="FujiXeroxXST" value="1"/>
      <add key="Oracle" value="1"/>
      <add key="Xerox" value="1"/>
    </TYPE>
    <controlFile>
      <add key="baseDirectory" value="xgateway\controlfile"/>
      <add key="inboxDirectory" value="xgateway\controlfile\inbox"/>
      <add key="processFileMask" value="*.ctl"/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="defaultUsername" value="em-codes"/>
      <add key="userNamePrefix" value=""/>
      <add key="inputFileType" value="PDF"/>
      <add key="faxAsRaw" value="0"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
```

```
      <add key="attemptIntervalSec" value="30"/>
    </controlFile>
    <embeddedCodes>
      <add key="baseDirectory" value="xgateway\embeddedcodes"/>
      <add key="inboxDirectory" value="xgateway\embeddedcodes\inbox"/>
      <add key="processFileMask" value="*.*"/>
      <add key="isInputFileBinary" value="0"/>
      <add key="binaryDataStartIndex" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="defaultUsername" value="em-codes"/>
      <add key="userNamePrefix" value=""/>
      <add key="inputFileType" value=""/>
      <add key="faxAsRaw" value="0"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
      <add key="preserveCodesInOutput" value="0"/>
    </embeddedCodes>
    <embeddedCodesPcl>
      <add key="baseDirectory" value="xgateway\embeddedcodesPcl"/>
      <add key="inboxDirectory" value="xgateway\embeddedcodesPcl\inbox"/>
      <add key="processFileMask" value="*.pcl"/>
      <add key="isInputFileBinary" value="0"/>
      <add key="binaryDataStartIndex" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="defaultUsername" value="em-codes"/>
      <add key="userNamePrefix" value=""/>
      <add key="inputFileType" value="PCL"/>
      <add key="faxAsRaw" value="0"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
      <add key="preserveCodesInOutput" value="0"/>
    </embeddedCodesPcl>
    <embeddedCodesPDF>
      <add key="baseDirectory" value="xgateway\embeddedcodesPDF"/>
      <add key="inboxDirectory" value="xgateway\embeddedcodesPDF\inbox"/>
      <add key="processFileMask" value="*.pdf"/>
      <add key="isInputFileBinary" value="1"/>
      <add key="binaryDataStartIndex" value="%PDF"/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="defaultUsername" value="em-codes"/>
      <add key="userNamePrefix" value=""/>
      <add key="inputFileType" value="PDF"/>
      <add key="faxAsRaw" value="0"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
      <add key="preserveCodesInOutput" value="1"/>
    </embeddedCodesPDF>
    <hpDigitalSender>
      <add key="baseDirectory" value="xgateway\HPDS"/>
      <add key="inboxDirectory" value="xgateway\HPDS\inbox"/>
      <add key="associatedFilesDir" value="xgateway\HPDS\"/>
```

```
      <add key="associatedFilesMask" value="#BASE_FILE_NAME#.TIF"/>
      <add key="processFileMask" value="*.hpf"/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="userNamePrefix" value="HP_SCANNER-"/>
      <add key="faxAsRaw" value="0"/>
      <add key="inputFileType" value=""/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </hpDigitalSender>
    <SAP>
      <add key="baseDirectory" value="xgateway\SAP"/>
      <add key="inboxDirectory" value="xgateway\SAP\inbox"/>
      <add key="inboxImagesDirectory" value="xgateway\SAP\inbox\images"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.app"/>
      <!--<add key="inputFileType" value="PCL"/>-->
      <add key="faxAsRaw" value="0"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </SAP>
    <FujiXeroxXST>
      <add key="baseDirectory" value="xgateway\xst"/>
      <add key="inboxDirectory" value="xgateway\xst\inbox"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.xst"/>
      <add key="inputFileType" value="PDF"/>
      <add key="faxAsRaw" value="0"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </FujiXeroxXST>
    <Oracle>
      <add key="baseDirectory" value="xgateway\oracle"/>
      <add key="inboxDirectory" value="xgateway\oracle\inbox"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="userNamePrefix" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.txt"/>
      <add key="inputFileType" value="PDF"/>
      <add key="faxAsRaw" value="1"/>
      <add key="includeSenderNotification" value="0"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </Oracle>
    <Xerox>
      <add key="baseDirectory" value="xgateway\xerox"/>
      <add key="inboxDirectory" value="xgateway\xerox\inbox"/>
      <add key="relayDirectory" value="xgateway\xerox\relay"/>
```

```
      <add key="processDirectory" value="xgateway\xerox\process"/>
      <add key="processedDirectory" value="xgateway\xerox\processed"/>
      <add key="defaultUsername" value="Admin"/>
      <add key="userNamePrefix" value=""/>
      <add key="allowAnonymousUsers" value="1"/>
      <add key="processFileMask" value="*.ctl"/>
      <add key="inputFileType" value="TIF"/>
      <add key="faxAsRaw" value="1"/>
      <add key="replacements" value="recipientAddress|string
MetaDataValue^subject|string JobTemplateDescription"/>
      <add key="includeSenderNotification" value="1"/>
      <add key="includeSenderCoverPage" value="0"/>
      <add key="maxAttempts" value="2"/>
      <add key="attemptIntervalSec" value="30"/>
    </Xerox>
  </Gateways>
  <applicationSettings>
    <GatewayAgent.Properties.Settings>
      <setting name="GatewayAgent_FXWS_wfDispatcher" serializeAs="String">
        <value>http://localhost:2372/WebServices/wfDispatcher.asmx</value>
      </setting>
    </GatewayAgent.Properties.Settings>
  </applicationSettings>
</configuration>
```

To setup custom gateway, please refer to sectionGroup name “Customs”. This is where you specify the required custom gateway. In the example above, there are 3 custom gateways setup, each with unique name.

Below it there is a “Customs” section where the custom gateways settings are populated. Please note each gateway section naming convention must follow exactly the same stated in “sectionGroup” portion.

Add key and value pair into the custom gateway name section. You can refer to the default configuration found in “Gateways” section, with additional name and value pair added `<add key="type" value="Xerox" />`

The “type” name and value pair tells the service to load which gateway type instance. You can have many of same type, provided the name must be unique. Another unique setting required is the base directory. 2 gateways cannot share the same base directory to avoid conflict.

You can reuse the name and value pair from the static gateway setting as a reference.