



Version 9.3
Installation Guide

Edition

Information in this document applies to version 9.3 of the RightFax Installation Guide.

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Chapter 1

Hardware and Software Requirements

Fax Server Requirements

Many of the software requirements associated with RightFax 9.3 are provided on the Prerequisites CD that is shipped with RightFax. To determine the needs of your fax server, you must first run Prerequisites CD, which will in-turn launch the RightFax Prerequisites Wizard. The Prerequisites Wizard must be run prior to installing the RightFax server software and will perform a system check for required third-party components and if necessary, will install them to your system. Some components, such as Windows service packs and Microsoft Exchange are not provided. For more information see [“Running the Prerequisites Wizard”](#) on [page 21](#) of the installation guide.

Supported Windows Operating Systems

- Microsoft Windows Server 2003 Standard Edition
- Microsoft Windows Server 2003 Enterprise Edition
- Microsoft Windows Server 2003 Datacenter Edition
- Microsoft Windows 2000 Advanced Server with SP4 installed
- Microsoft Windows 2000 Server with SP4 installed
- Microsoft Windows 2000 Datacenter Server with SP4 installed

Minimum hardware requirements

Computer/Processor	500 MHz or higher Pentium III-compatible CPU
Memory	512 MB RAM
Hard drive	1 GB free space
CPU support	Single and dual CPU systems
Drive	CD-ROM or DVD drive
Display	VGA or higher resolution monitor running at a resolution of 800 × 600 or higher
Keyboard	Required

Recommended hardware requirements

Computer/Processor	966 MHz or higher Pentium III-compatible CPU
Memory	512 MB RAM
Hard drive	2 GB free space
CPU support	Single and dual CPU systems
Drive	CD-ROM or DVD drive

Display	SVGA or higher resolution monitor running at a resolution of 800 × 600 or higher
Keyboard	Required

Additional requirements

- Internet Explorer 6 SP1
- MDAC 2.8
- .NET Framework 1.1 or higher

All RightFax servers and remote BoardServer computers require and that the Microsoft Data Access Components (MDAC) be updated to the most recent version (version 2.8) on all supported operating systems. If your RightFax server has not been updated to use MDAC version 2.8, the Prerequisites Wizard will install it for you. To update the MDAC on remote servers, run the file MDAC_typ.exe located in the \Prereqst folder on the root of the RightFax Prerequisites CD.

Microsoft .Net Framework 1.1 is also required by all RightFax servers and remote BoardServer computers. The Prerequisites Wizard will scan your fax server and will install .Net Framework 1.1 if required. Those environments choosing to install SQL Server 2005 Express will be prompted to install .Net Framework 2.0. This is again accomplished during the Prerequisites Wizard scan. To update or install .Net Framework on remote servers, run the file dotnetfx.exe located in the \Prereqst folder on the root of the RightFax Prerequisites CD.

Supported Versions of Microsoft SQL Server

RightFax uses a SQL database to store all data on faxes, users, and dialing rules. During installation, you have the option to connect to an existing SQL database on your network, or can use the RightFax Prerequisite wizard to install and use a SQL Server 2005 Express database directly on the RightFax server. If you

choose to connect to a SQL server already configured on your network, RightFax supports only the following versions of Microsoft SQL server:

- Microsoft SQL 2000 Standard Edition
- Microsoft SQL 2000 Enterprise Edition (standalone server)
- Microsoft SQL 2000 Enterprise Edition (in a SQL clustering environment)
- Microsoft SQL Server 2005 Express
- Microsoft SQL 2005 Standard Edition
- Microsoft SQL 2005 Enterprise Edition (standalone server)
- Microsoft SQL 2005 Enterprise Edition (in a SQL clustering environment)



Note MSDE 2000 is not supported.

Support for international character sets in the RightFax database



Tip Many of the RightFax client applications have localized versions that allow non-English speakers to easily use the RightFax client tools. See [page 37](#) for a complete list of the languages available in the RightFax client applications. The languages into which the RightFax client applications are translated are not related to the character sets that can be stored in the RightFax database as discussed in this section.

RightFax supports a wide range of characters and symbols from non-English alphabets. However, the RightFax server, SQL database, and client applications must *all* be configured to use the *same* symbol sets. If not, characters may not appear on your clients' outbound faxes as expected. This is because a character written on a client computer that is using *one* symbol set may map to an entirely different character when sent to a server using a *different* symbol set.

The symbol sets that are supported on the RightFax server and client computers are determined by the Regional and Language Options configured from Windows Control Panel and can be changed at any time. The symbol set used by the SQL database, however, is encoded into the database when it is installed based on the current Regional setting on the SQL server. This is true whether you have a separate SQL server or are installing the SQL server during the RightFax installation. You should ensure that the Regional setting on the SQL server is properly configured for the character set that the server will support *before* installing the database. If you have already installed a SQL database with the incorrect Regional setting, contact Microsoft for assistance in reconfiguring the SQL regional setting.

The following code pages are supported by the RightFax server and client applications:

- 1250 (Albania, Croatia, Faeroese, Hungarian, Polish, Romanian, Serbian, Slovak, and Slovenian)
- 1251 (Byelorussian, Bulgarian, Russian, and Ukrainian)
- 1252 (Afrikaans, Basque, Catalan, Danish, Dutch (Standard and Belgium), English (US, Britain, Canada, New Zealand, Australian, Ireland, S.Africa), Finnish, French (Standard, Belgium, Switzerland, Canada, Luxem.), German (Standard, Swiss, Austrian, Luxem., Liechtenstein), Icelandic, Indonesian, Italian (Standard, Swiss), Norwegian (Bokmal, Nynorsk), Portuguese (Standard, Brazil), Spanish (Mexico, Traditional, Modern), and Swedish)
- 1253 (Greek)
- 1254 (Turkish)
- 1255 (Hebrew)
- 1256 (Arabic)
- 1257 (Estonian, Latvian, and Lithuanian)
- 1258 (Vietnam)



Note *Time strips are printed using the printer's available symbol set regardless of the code page in use on the server. For characters on these lines to appear as expected, the code page on the fax server must match the printer's available symbol set. Because TTI lines and quick headers are placed onto the fax image by your fax board, RightFax does not support the use of diacritical characters on these lines.*

Double-byte character support

Although the RightFax database does not store double-byte characters, these characters *are* supported by server-side application native document conversion. When you install and configure the appropriate language support options to Microsoft Word, Excel, and PowerPoint, RightFax will successfully convert

double-byte documents to fax images. For more information on server-side application conversion, refer to the *RightFax Administrator's Guide*.



Note Although double-byte characters added to the text of a Microsoft Word cover sheet will convert correctly, double-byte characters inserted into DocVariable fields on Microsoft Word cover sheets will not.

Fax Board Requirements

RightFax supports Brooktrout fax boards, Intel Dialogic (also known as GammaLink) fax boards, and Eicon fax boards. For a list of all supported fax board types, refer to the *RightFax Fax Board Guide*.

Installing the fax boards

Fax boards can be installed in the computer running the RightFax server software, or on a separate computer called a Remote BoardServer. For information on using Remote BoardServer computers, refer to the *RightFax Administrator's Guide*.

Phone Line Requirements

The fax boards that RightFax supports can make use of several different types of phone lines: loop-start (regular analog phone lines), Direct Inward Dial (DID), Dialed Number Identification Service (DNIS), Integrated Services Digital Network (ISDN), and several types of digital phone lines. Different types of fax boards support different types of phone lines. For information on the types of fax boards that are compatible with your available phone lines, refer to your fax board supplier or manufacturer.

Loop-start phone lines

Loop-start lines can be used for incoming or outgoing faxes. A line can be installed by the local telephone company if one is not already available through your organization's existing phone system. Loop-start lines are also called POTS (Plain Old Telephone Service) lines.

Direct Inward Dial (DID) phone lines

Each DID phone line is called a "trunk." When a DID trunk is installed, it is assigned a bank of numbers. For example, a DID trunk may be assigned the bank of 20 numbers ranging from 321-7450 to 321-7469. All calls to any of the assigned numbers are routed to the DID trunk.

DID phone lines have a few special attributes. First, DID lines are used for incoming faxes only. Outgoing faxes must be sent through a standard loop-start line. Second, the customer, rather than the phone company, supplies the power (called the "talk battery") necessary to drive the phone line. For this reason, DID fax boards come with an additional power adapter which provides the necessary -48 volt current.

DID allows RightFax to route incoming faxes to their intended destinations within your company. Whenever someone dials a number within the range, the DID trunk is activated by the phone company and the fax board accepts the incoming fax. Along with the fax data, the phone company sends the board the last three or four digits of the phone number dialed. The fax board collects these digits and passes them to RightFax. Each RightFax user has a personal fax mailbox which is assigned one of the DID trunk's numbers (known as the "routing code"). Received faxes are routed to the mailbox whose routing code matches the dialed DID number.



Warning Never plug a loop-start phone line into a DID fax board when there is any voltage present on the phone line. Doing so will damage the fax board and void all warranties.

Dialed Number Identification Service (DNIS) phone lines

DNIS is a T1-based version of DID service. For information on configuring your fax boards for DNIS, refer to the hardware guide included with your fax board.

Integrated Services Digital Network (ISDN) phone lines

ISDN is a worldwide standard communications network for digital data, voice, and video communication. The main advantages of ISDN over analog telephone lines are fast call setup and release and additional cost-recovery information included with the call.

PRI, BRI, E1, and T1 digital phone lines

RightFax supports PRI, BRI, E1, and T1 digital phone lines assuming you have purchased and installed the appropriate type of fax boards and network interface card. For more information on digital phone lines, refer to the *RightFax Fax Board Guide*.

■ ■ ■

What Is Installed on the RightFax Server?

The RightFax server installation program installs the complete suite of RightFax products. The capabilities of the server and the modules that are enabled depend on your product licensing. Because all of the RightFax software is installed, the RightFax server can be upgraded and optional modules can be added simply by purchasing a license and activating the feature. For information about upgrading the server and adding new RightFax modules, see [Chapter 5, “Upgrading and Adding Fax Channels, User Licenses, and Optional Components”](#).

In addition to the installed software, The RightFax installation creates several Windows services, adds RightFax configuration settings to the Windows Registry, adds configuration programs to Windows Control Panel, and installs the FaxUtil and Enterprise Fax Manager client programs.

RightFax uses a SQL database to store all data on faxes, users, and dialing rules. If you do not connect to an existing SQL database on your network during installation, RightFax will install and use a SQL Server 2005 Express database on the RightFax server computer. This is a fully functional SQL database, but lacks the SQL management tools that accompany the full version of Microsoft SQL server.

RightFax Software

All of the RightFax software is installed on the server in the folder you specify during installation. By default, the software installs in the C:\Program Files\RightFax folder. Third-party software that is used by the RightFax server, such as fax board drivers, may be installed in other locations.

RightFax Configuration Programs

The RightFax server includes several configuration programs that let you customize the RightFax services. The RightFax configuration programs can be run from Windows Control Panel or from Enterprise Fax Manager (described in the *RightFax Administrator's Guide*).

The following table describes all of the RightFax configuration programs that are available.



Note Some of these configuration programs may not be enabled on the server, depending on the type of RightFax server you have licensed and the modules that are enabled.

Table 2a RightFax Server Configuration Programs

Configuration program	Description
Captaris Conversion Engine	The Captaris Conversion Engine is a stand-alone, fault tolerant service that is used to invoke those applications commonly used in server-side application conversion. These applications will be used to convert their associated file types when installed on the RightFax server and remote WorkServers.
Captaris Sync	The Captaris Sync Module is an XML/XSLT based tool that allows RightFax administrators to create and synchronize users from Active Directory domains, groups, and/or organizational units and/or LDAP compliant data sources.
RightFax Alerting	Use this program to configure the RightFax Alerting and Monitoring feature. This feature lets RightFax administrators create custom server statistics to monitor and define thresholds on which to send alerts. For more information on the Alerting and Monitoring feature, refer to the <i>RightFax Administrator's Guide</i> .

Table 2a RightFax Server Configuration Programs (Continued)

Configuration program	Description
RightFax BoardServer	<p>This is a configuration program used for most of the fax boards supported by RightFax. Use the BoardServer configuration program to customize each installed fax board and each fax channel. Although you may have only one BoardServer service installed on a single computer, you can optionally create RightFax BoardServer services on remote computers to offload fax board processes or to expand your network's fax board and fax channel capacity. For more information on BoardServers, refer to the <i>RightFax Administrator's Guide</i>.</p> <p>The BoardServer configuration program can only be launched from within the Doc Transport program (described next.)</p> <p>For more information on the fax boards you use and their configuration requirements, and the T.37 and T.38 Fax-over-IP features, refer to the <i>RightFax Fax Board Guide</i>. For information on document transport via SMS, refer to the <i>RightFax Administrator's Guide</i>.</p>
RightFax Doc Transport	<p>The Doc Transport configuration program is used to configure several transport methods for your RightFax documents including standard fax boards, T.37 Fax-over-IP, and SMS (short message service).</p> <p>All fax board configuration, including BoardServer configuration, is initiated from this configuration program.</p> <p>For more information on the fax boards you use and their configuration requirements, and the T.37 and T.38 Fax-over-IP features, refer to the <i>RightFax Fax Board Guide</i>. For information on document transport via SMS, refer to the <i>RightFax Administrator's Guide</i>.</p>

Table 2a RightFax Server Configuration Programs (Continued)

Configuration program	Description
RightFax EDC	Use this program to configure connections between RightFax and third-party document delivery systems such as FileNet applications and Xerox multi-function products. The RightFax EDC (External Document Connector) is a generic connector that allows the RightFax server to communicate with external systems. Instructions for how to configure the RightFax EDC are included in the documentation for each supported external system.
RightFax E-mail Gateway	Use this program to create and modify the RightFax e-mail gateway services. E-mail gateway services act as the communication link between the RightFax server and your organization's e-mail software. It is possible to install multiple e-mail gateways, each communicating with a different e-mail server. For more information on e-mail gateways, refer to the <i>RightFax Administrator's Guide</i> , the <i>RightFax Gateway for Microsoft Exchange Guide</i> , or the <i>RightFax Gateway for Lotus Notes Guide</i> (depending on the gateway you add).
RightFax Integration	Use this program to modify the RightFax Integration Module service. The Integration Module integrates the RightFax server with applications on mainframe, mid-range, and local area network host systems. For more information on the RightFax Integration Module, refer to the <i>RightFax Integration Module Guide</i> .

Table 2a RightFax Server Configuration Programs (Continued)

Configuration program	Description
RightFax SAP Connector	Use this program to create and modify the RightFax SAP gateway services. SAP gateway services act as the communication link between the RightFax server and SAP clients. It is possible to install multiple SAP gateways, each communicating with a different SAP client. For more information on the SAP gateway module, refer to the <i>RightFax Connector for SAP R/3 Guide</i> .
RightFax Server	Use this program to modify the RightFax Server service. The Server service controls all of the RightFax services and coordinates communication between the server computer, client computers, fax boards, and the fax database. For more information on the RightFax Server service, refer to the <i>RightFax Administrator's Guide</i> .
RightFax WorkServer	Use this program to create and modify the RightFax WorkServer services. WorkServer services perform the most processor-intensive functions required by the RightFax server, such as cover sheet generation, PCL-to-fax conversion, and optical character recognition. By default, three separate WorkServer services are installed on the RightFax server, and each WorkServer service can be customized to perform specific functions. You can also create RightFax WorkServer services on remote computers to offload your most processor-intensive functions. For more information on WorkServers, refer to the <i>RightFax Administrator's Guide</i> .

RightFax Services

The names of all RightFax services begin with the word “RightFax.” This lets you easily identify all of RightFax services that are currently running. You can modify most RightFax services through their configuration programs, which can be run from Windows Control Panel or from the RightFax administrative program, Enterprise Fax Manager (described in the *RightFax Administrator’s Guide*).

RightFax Registry Entries

All of the RightFax registry entries are located in the Windows Registry under the following keys:

- HKEY_CURRENT_USER\SOFTWARE\RightFax
- HKEY_CURRENT_USER\SOFTWARE\RightFax Client
- HKEY_LOCAL_MACHINE\SOFTWARE\RightFax
- HKEY_LOCAL_MACHINE\SOFTWARE\RightFax Client
- HKEY_CLASSES_ROOT\RF..
- HKEY_CLASSES_ROOT\RightFax...

In most cases, you should not have to make changes or additions to the RightFax registry settings. However, some RightFax features do require you to make modifications to the Windows Registry. Wherever this is true, instructions are provided in the RightFax documentation.

RightFax Client Applications

In addition to the RightFax server software, several RightFax client applications are available that allow administration of the fax servers (Enterprise Fax Manager), user access to fax mailboxes (FaxUtil), print drivers that allow users to print documents directly to fax format for delivery to the RightFax server (RightFax print drivers), and Web-based versions of these applications. For more information FaxUtil, Enterprise Fax Manager, the RightFax print drivers, and the Web-based equivalent applications, refer to the *RightFax Administrator’s Guide*.

■ ■ ■

Installing the RightFax Server Software

Upgrading from a Previous Version of RightFax

- You can only upgrade to RightFax version 9.3 from RightFax versions 8.7 SP3 or 9.0 SP2. If you are running an earlier version of RightFax, you must either upgrade your earlier version to version 8.7 SP3 or 9.0 SP2, or uninstall the RightFax server and perform a new installation of RightFax 9.3.
- Support for some fax boards has been discontinued with this release. For a complete list of fax boards supported by this version, refer to the *RightFax Fax Board Guide*. If you have already installed one or more fax boards that do not appear on this list, do not upgrade to this version of RightFax.
- In RightFax version 9.3, the proprietary database used in pre 9.0 versions has been changed to a Microsoft SQL database. During an upgrade, all existing RightFax database objects will be converted to SQL with no loss of data. The RightFax installation allows you to install SQL Server 2005 Express directly on the RightFax server, or you can connect to an existing SQL database on your network. Note that the version of SQL provided with RightFax has limited administrative functionality and includes no database backup or maintenance tools. If you do not connect to an existing full copy of Microsoft SQL database during installation, you will probably need to acquire a suite of SQL backup and maintenance tools separately.
- Before upgrading from an 8.7 SP3 version of RightFax, Captaris recommends that you check the RightFax database for errors. Run the DBCheck.exe program, and clean up the database if needed. For instructions on DBCheck.exe, refer to the 8.7 version of the *RightFax Administrator's Guide*.
- All 9.0 SP2 installations that have implemented a local MSDE database must upgrade MSDE to SQL Server 2000, SQL Server 2005 or SQL Server 2005 Express. SQL Server 2005 Express is shipped with RightFax 9.3. The option to upgrade MSDE to SQL Server 2005 Express is presented during the 9.3 installation. Remote MSDE installations cannot be upgraded via the RightFax installation and must be done so from the local MSDE computer.
- Before upgrading, back up the entire Program Files\RightFax folder structure. To get a complete backup of your RightFax server software, you must first stop all RightFax services.

- Before upgrading an earlier version of the RightFax remote BoardServer software, you must uninstall the existing remote BoardServer software. To uninstall RightFax remote BoardServer software, run the uninstall program from the Add/Remove Programs application in Windows Control Panel. You must then perform a new install of both the RightFax server software and fax board drivers.
- Before upgrading an earlier version of a Dialogic series fax driver, you must remove the existing drivers. To uninstall the drivers, run the uninstall program from the Add/Remove Programs application in Windows Control Panel. You must then perform a new install of the fax board drivers.
- The RightFax Web Client shipped with RightFax versions prior to 9.0 has been replaced with a completely new Web client called RightFax Web Access. If you will be installing RightFax Web Access on the same IIS server on which an earlier version of the RightFax Web client was installed, you must first uninstall the existing RightFax Web Client software. Any custom pages designed for your old Web client application will be lost.
- Any existing files for the RightFax SecureDocs Module or Enterprise Fax Manager Web Edition will be deleted when you upgrade these applications on the Microsoft IIS server. If you have created customized files for any of these applications, you must save copies of the customized files before upgrading, and then merge your customizations into the upgraded files.
- After upgrading a Windows 2003 server from a RightFax version prior to version this version, you may receive error messages on restart reporting that one or more RightFax services have shut down improperly. This is a result of the earlier-version services being shut down during installation. These messages can be closed and disregarded.

By the time you receive this software, new information or software updates may be available. For the latest information on RightFax software, visit the RightFax support Web site at

www.captaris.com/customer_support. This Web site may provide up-to-date information on installing and upgrading the RightFax server

Overview

Upgrading your RightFax server to version 9.3 software is a three step process, each of which requires its own separate CD.

1. Determine which third-party components are required and if necessary install them running using the Prerequisites Wizard described on [page 21](#).
2. Install the core fax server software described on [page 22](#).
3. Install the fax board software and drivers described on [page 23](#).

Rolling out a software upgrade

If you have a large enterprise with a complex server and client system, you may want to gradually phase in the RightFax software upgrade.

Because the RightFax server software is backward-compatible with all supported versions of the RightFax client software, you should plan to upgrade the server first, and then upgrade the client systems later.

The RightFax servers need not all be upgraded at the same time. You can run a network of RightFax servers of different versions without loss of functionality. The same is true for RightFax client applications.

To automate the installation of the server on a network with a network management system such as SMS, see [“Running a silent install of the RightFax server software”](#) on [page 35](#).

To install the RightFax client applications, refer to the *RightFax Administrator's Guide*.

Upgrading the RightFax Server

When upgrading a RightFax server, you must upgrade both the server software and the hardware drivers. First upgrade the server, then upgrade the hardware drivers.

The RightFax server upgrade copies your existing RightFax database to an existing SQL server or lets you install a SQL Server 2005 Express database directly on the RightFax server. SQL Server 2005 Express does not include any SQL management tools such as database backup utilities. If you intend to install SQL Server 2005 Express, which is provided with RightFax, Captaris recommends that you purchase a separate SQL backup utility and any additional SQL management tools you feel necessary for proper management of your RightFax database.

When installing SQL Server 2005 Express on a computer that is running Windows 2000 or 2003 Server, the Microsoft Data Access Components (MDAC) are automatically updated to MDAC 2.8, the Windows Installer is updated to version 3.0, and .Net Framework 2.0 is installed. Each of these is a requirement of SQL Server 2005 Express.



Warning *If you will be installing the RightFax database to an existing SQL server, the SQL server must be configured to use SQL mixed-mode authentication. If the SQL server is set to use NT authentication only, the database will not install properly. If your SQL server is configured to use NT authentication, you must set it to use mixed-mode authentication before installing RightFax. After the installation is complete, you can re-set the SQL server for NT authentication. For instructions on configuring RightFax to use NT authentication to the SQL server, refer to the RightFax Administrator's guide.*

Running the Prerequisites Wizard

The Prerequisites Wizard will scan your server for third-party software that is required for the installation of the following components:

- **RightFax Server:** *The core RightFax server software.*
- **RightFax Client:** *Enterprise Fax Manager, FaxUtil, and the RightFax print drivers.*
- **Remote Services:** *Remote BoardServer and other server components installed remotely to share resources across machines.*
- **IIS Web Applications:** *Certified Delivery, RightFax Web Access, and other Web-based RightFax applications.*
- **Exchange Connector:** *The RightFax Connector for Exchange and the MMC Administrative Tool for the RightFax Connector.*

Each of these components has their own set of requirements. The Prerequisites Wizard will determine the status of these requirements and will provide the option of installing them if necessary, or as in the case of Windows service packs, Exchange and IIS, will inform you if their requirement and the need to acquire and install them separately.

Other requirements, such as .Net Framework, Windows Installer version 3.0, and MDAC 2.8 are provided on the Prerequisites CD and are thus installed by the Prerequisites Wizard. Windows Message Queueing (if required) will also be installed via the

Prerequisites Wizard, however, this is accomplished by utilizing the Add/Remove Windows Components Wizard located in the Windows > Add/Remove Programs Control Panel.



Warning If Windows Message Queueing is required and you are upgrading MSDE to SQL Server 2005 Express, the install of Windows Message Queueing will stop all MSDE services.



Important The Prerequisite Wizard cannot upgrade remote MSDE installations to SQL Server 2005 Express. This upgrade must be done from the MSDE server and prior to installing RightFax. To install SQL Server 2005 Express, run the file SQLEXPRESS.exe located in the \Prereqst folder on the root of the RightFax Prerequisites CD. More information about installing SQL Server 2005 Express can be found at <http://support.microsoft.com>.



Caution The installation of RightFax 9.3 cannot be stopped or reverted for any reason.

1. Log on to the computer using an ID with NT administrative access. If you do not log on with administrative access, the upgrade will fail.
2. Insert the RightFax Prerequisites CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run Setup.exe. The RightFax Prerequisites wizard opens.
3. Click **Next** at the **Prerequisites Wizard** opening screen.
4. On the **Select RightFax Components** screen, select the components you wish to install or upgrade. At a minimum these should include **RightFax Server** and **RightFax Client**. Click **Next** after making your selections.
5. The **Prerequisites Preview** screen lists third-party software that is required by those components previously selected. Software that must be installed will have a status of *Not Installed*. The SQL Server status should have a status of *Info Required*. Click **Next** to either install required software, or to enter your SQL Server information. Should you need to install additional software, you may need to re-run the Prerequisites Wizard.

6. On the **SQL Server** screen, select the type of SQL database you want use for RightFax:
 - **I will specify connection information for an existing SQL server.** Select this option if you have a SQL server already running on your network and want to install the RightFax database schema directly to that server.

Click **Next** if you connect to an existing SQL database, a screen will open prompting you for connection and login information so the RightFax server can access the SQL database. Complete the options on this dialog box according to your existing SQL installation and then click **Next**.

- **Install Microsoft SQL Server 2005 Express Database Edition.** Select this option if you do not have or do not have access to an existing SQL 2000 or 2005 Server on your network. RightFax will install a stripped-down version of SQL sever.

Click **Next** to verify SQL Server 2005 Express requirements. If necessary you will be prompted to install MDAC 2.8, Windows Installer 3.0, and .Net Framework 2.0. Upon completing the installation of these components, you will be prompted with the SQL Server 2005 Express installation. These installations can take several minutes.

On the **SQL Server Information** screen, document the SQL Server, User ID, and Password. These items are critical and should be documented safely and securely.

7. When the software update is complete, click **Finish**.

Running the RightFax server upgrade

1. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run Setup.exe. The RightFax install wizard opens.
2. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.

3. On the **Advanced Options** screen, you will be prompted to enter configuration information based on your previous RightFax installation and the components you selected during the Prerequisites Wizard. It is recommended that you do not change these settings however, if this cannot be avoided you must first re-run the Prerequisites Wizard followed by the RightFax server setup. Click **Next**.

4. When the software update is complete, click **Finish**.

If you have upgraded from 8.7 SP3 and have the RightFax SecureDocs Module installed and running, you must complete an additional step to make sure that your existing RightFax database is properly synchronized with the new SQL database.

5. Open a command line prompt.
6. Change to the RightFax\WebApps\SecureDocs\Apps folder.
7. Run the following command:

```
synchdb RFServer 4 RightFax SQLLoginID Password
```

Where *RFServer* is the name of the RightFax server being upgraded. *SQLLoginID* is the login ID used to access the SQL database. This will be the DSN login ID if you are connecting to an existing SQL server or "sa" if you installed the MSDE SQL database. *Password* is the password for the SQL login you specified. If you installed the MSDE database, the password is blank which is indicated by two double quotes.

Examples `synchdb RFServ 4 RightFax JaneDoe MyPassword`
`synchdb RFServ 4 RightFax sa ""`

8. If the command executed properly, a success message will display.
9. Finally, all existing SecureDocs recipients will be prompted to recreate their login information when accessing SecureDocs documents on the SecureDocs Web site.

Upgrading the RightFax fax board drivers

1. After the RightFax server has been upgraded, remain logged on to the computer using an ID with NT administrative access.
2. Insert the RightFax hardware drivers CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run Setup.exe. The RightFax install wizard opens.
3. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
4. On the **Fax Hardware Selection** screen, select the type of fax boards you have installed (Brooktrout and/or Dialogic). Click **Next**.
5. Click **Install** to begin the installation.
6. When the **Transport Configuration** screen opens, click OK to keep your existing fax hardware configuration.
7. When all of the updated drivers have been installed, click **Finish** to complete the RightFax Fax Board Driver install wizard.



Important *If you are upgrading an 8.7 server using foreign code pages, you must select the option of **ANSI Mode** in the RightFax Server module, Advanced tab.*

Installation Overview



Important If you are installing RightFax in a Windows 2000 or 2003 cluster, refer to “Clustering RightFax with Microsoft Windows 2003 Server” on page 65 for special instructions.

The RightFax server is the computer that runs the fax server software. The server performs all the work required for sending and receiving faxes, including managing the fax database, converting documents into fax images, adding signatures, overlaying forms, maintaining logs, printing faxes, and creating fax cover sheets.

The RightFax server installation lets you create a new RightFax database on an existing SQL server or install an SQL Server 2005 Express database directly on the RightFax server. SQL Server 2005 Express does not include any SQL management tools such as database backup utilities. If you intend to install SQL Server 2005 Express, provided with RightFax, Captaris recommends that you purchase a separate SQL backup utility and any additional SQL management tools you feel necessary for proper management of your RightFax database.

When installing SQL Server 2005 Express on a computer that is running Windows 2000 Server, the Microsoft Data Access Components (MDAC) are automatically updated to MDAC 2.8, unless a newer version already exists on the server.

A complete RightFax server installation is comprised of these major tasks:

1. Optionally install the fax boards into your RightFax server chassis. If you will be using one or more remote BoardServer computers to house the fax boards, you do not need to have fax boards installed in the RightFax server computer. For more information on using remote BoardServer computers, refer to the *RightFax Administrator's Guide*.



Note This step does not include installing the fax board driver software. The fax board drivers should be installed only after installing the RightFax server software.

2. Run the Prerequisites Wizard (see “Running the Prerequisites Wizard” on page 25)
3. Install the RightFax server software (see “To ensure that your RightFax server installation goes smoothly and to avoid unnecessary delays, it is important to perform each step in the installation completely and correctly before proceeding to the next step.” on page 26).
4. Enable your licensed product feature set (see “Enabling Your Licensed Product Feature Set” on page 27).
5. Install the fax board drivers (see “Installing the Fax Board Drivers” on page 28).
6. Configure the RightFax Server, WorkServer, and Doc Transport modules (described in the *RightFax Administrator's Guide*).
7. Test the fax boards (described in the *RightFax Fax Board Guide*).
8. Set up users and other RightFax database objects using Enterprise Fax Manager (described in the *RightFax Administrator's Guide*).

By the time you receive this software, new information or software updates may be available. For the latest information on installing RightFax servers, visit the RightFax support Web site at www.captaris.com/customer_support. This site may provide up-to-date information on installing and upgrading your RightFax server.



Warning If you will be installing the RightFax database to an existing SQL server, the SQL server must be configured to use SQL mixed-mode authentication. If the SQL server is set to use NT authentication only, the database will not install properly. If your SQL server is configured to use NT authentication, you must set it to use mixed-mode authentication before installing RightFax. After the installation is complete, you can re-set the SQL server for NT authentication. For instructions on configuring RightFax to use NT authentication to the SQL server, refer to the RightFax Administrator's guide.

Running the Prerequisites Wizard

The Prerequisites Wizard will scan your server for third-party software that is required for the installation of the following components:

- **RightFax Server:** *The core RightFax server software.*
- **RightFax Client:** *Enterprise Fax Manager, FaxUtil, and the RightFax print drivers.*
- **Remote Services:** *Remote BoardServer and other server components installed remotely to share resources across machines.*
- **IIS Web Applications:** *Certified Delivery, RightFax Web Access, and other Web-based RightFax applications.*
- **Exchange Connector:** *The RightFax Connector for Exchange and the MMC Administrative Tool for the RightFax Connector.*

Each of these components has their own set of requirements. The Prerequisites Wizard will determine the status of these requirements and will provide the option of installing them if necessary, or as in the case of Windows service packs, Exchange, Internet Explorer 6.01 and IIS, will inform you if their requirement and the need to acquire and install them separately.

Other requirements, such as .Net Framework, Windows Installer version 3.0, and MDAC 2.8 are provided on the Prerequisites CD and are thus installed by the Prerequisites Wizard. Windows Message Queueing (if required) will also be installed via the Prerequisites Wizard, however, this is accomplished by utilizing the Add/Remove Windows Components Wizard located in the Windows > Add/Remove Programs Control Panel.



Warning *If Windows Message Queueing is required and you are upgrading MSDE to SQL Server 2005 Express, the installation of Windows Message Queueing will stop all MSDE services.*



Caution *The installation of RightFax 9.3 cannot be stopped or reverted for any reason.*

To ensure that your RightFax server installation goes smoothly and to avoid unnecessary delays, it is important to perform each step in the installation completely and correctly before proceeding to the next step.

1. Log on to the computer using an ID with NT administrative access. If you do not log on with administrative access, the upgrade will fail.
2. Insert the RightFax Prerequisites CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run Setup.exe. The RightFax Prerequisites wizard opens.
3. Click **Next** at the **Prerequisites Wizard** opening screen.
4. On the **Select RightFax Components** screen, select the components you wish to install. At a minimum these should include **RightFax Server** and **RightFax Client**. Click **Next** after making your selections.
5. The **Prerequisites Preview** screen lists third-party software that is required by those components previously selected. Software that must be installed will have a status of *Not Installed*. The SQL Server status should have a status of *Info Required*. Click **Next** to either install required software, or to enter your SQL Server information. Should you need to install additional software, you may need to re-run the Prerequisites Wizard.
6. On the **SQL Server** screen, select the type of SQL database you want use for RightFax:



Caution 7. After it is installed, the RightFax SQL database is permanently associated with the name of the RightFax server you are installing. If for any reason you need to replace or rebuild this RightFax server, the new server must have the exact same network identification as the original.

- **I will specify connection information for an existing SQL server.** Select this option if you have a SQL server already running on your network and want to install the RightFax database schema directly to that server.

Click **Next** if you connect to an existing SQL database, a screen will open prompting you for connection and login information so the RightFax server can access the SQL database. Complete the options on this dialog box according to your existing SQL installation and then click **Next**.

- **Install Microsoft SQL Server 2005 Express Database Edition.** Select this option if you do not have or do not have access to an existing SQL 2000 or 2005 Server on your network. RightFax will install a stripped-down version of SQL sever.

Click **Next** to verify SQL Server 2005 Express requirements. If necessary you will be prompted to install MDAC 2.8, Windows Installer 3.0, and .Net Framework 2.0. Upon completing the installation of these components, you will be prompted with the SQL Server 2005 Express installation. These installations can take several minutes.

On the **SQL Server Information** screen, document the SQL Server, User ID, and Password. These items are critical and should be documented safely and securely.

8. When the software update is complete, click **Finish**.

To install the RightFax server software

1. Log on to the computer using an ID with NT administrative access. If you do not log on with administrative access, the installation and configuration of RightFax will fail.



Note If you are installing on a Novell network, the SAP Agent, NWLINK IPX/SPX, and Gateway for NetWare must be installed on your RightFax server. File and Print services for NetWare should be installed if you plan to connect DOS clients.

2. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run Setup.exe. The RightFax install wizard opens.
3. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
4. Enter your name, organization name, and your product serial number when prompted. Click **Next**.
5. On the **Setup Type** screen, select **Typical Server** to install the RightFax server components, the Enterprise Fax Manager server management tool, and FaxUtil, the RightFax fax mailbox. If you want to install additional server and client components, select **Custom**. Click **Next**.
6. The components you selected during the Prerequisites Wizard are reflected in the server components listed on **Setup Features** screen. It is recommended that you do add any additional server settings however, if this cannot be avoided you must first re-run the Prerequisites Wizard followed by the RightFax server setup. Some of these additional components require separate licensing, and may need additional configuration after the server is installed. For information on which components you have licensed, refer to the software product license card that was included with your RightFax software package. When you have selected the components to install, click **Next**.
7. On the **Advanced Options** screen, you will be prompted to enter additional configuration information for the RightFax installation. Disabled options are not required for the feature set you selected.

SMTP Host. Enter the name of the SMTP server on your network that will transport all SMTP alerts and notifications and fax-over-IP messages. If you will not be using SMTP to deliver RightFax alerts or send documents via fax-over-IP, you may leave this option blank.

IIS User Account. If you have selected to install server components that require IIS server, enter the IIS user account that RightFax will use to access the IIS server.

RightFax Server Name. This option will only be available when installing clients, services, and gateways on remote computers. This tells the remote software where to locate the RightFax server.

Certified Delivery Webserver. If you are installing the Certified Delivery feature of the RightFax SecureDocs Module, enter the name of the IIS server on which the Certified delivery Web site will be located. Click **Next**.

8. Click **Install** to begin the installation.
9. When prompted, select the service account that the RightFax services will use to start. This should be an account with administrative privileges on the RightFax server. You can click **Load Users** to list all the user accounts accessible to the server computer and select the user account you want.



Note *If you will be accessing files from or printing to Novell queues on a NetWare volume, the service account must exist in Novell as an account.*

10. You will be prompted to add an e-mail gateway. E-mail gateways let your organization's fax users send and receive faxes through their e-mail client applications. To add one or more e-mail gateways, click **Add Gateway** and select the type of gateway to add. When you add a new gateway, a configuration dialog box opens. For information on completing the options in this dialog box, refer to the *RightFax Administrator's Guide*.

11. On new installations, the install wizard installs all of the selected RightFax components, but does not fully enable the software. The RightFax software must have its licensed feature set enabled, which you can do either via the Web, or by contacting the Captaris support department. For more information on enabling the licensed feature set, see [“Enabling Your Licensed Product Feature Set”](#) on page 27.

When the software installation is complete, click the **Register Online** button to enable your licensed product feature set via the Web. If you would prefer to contact the Captaris support department to enable your licensed product feature set, click **Finish**.

Enabling Your Licensed Product Feature Set



Note *If you are upgrading an existing RightFax server, your existing feature set will be retained and this step is unnecessary.*

After you complete a new installation of RightFax, the server will be licensed only for a limited feature set. To enable the full licensed functionality of your RightFax server, you must register the software with Captaris. At that time, you will be issued a “bump” code that enables your full feature set. Captaris provides two methods for registering your RightFax software.

Registering via the Web

On the last screen of the RightFax installation wizard is a **Register Online** button. You can click this button to register your RightFax software online during installation. Follow the instructions provided on the Web page to complete the registration and enable the full feature set of your RightFax server.

Registering through the Captaris support department

You can also register your RightFax server by contacting the RightFax product support group at (520) 320-7070. The support engineer will assist you through the registration process.

Installing the Fax Board Drivers

Regardless of the type of fax boards you use, you must run a separate fax board hardware driver install program on all computers containing the fax boards after installing the server. This install program is provided with your RightFax server software on a separate CD labeled "Fax Board Driver Install."

Follow these steps to install the fax board hardware drivers. Be sure to run this installation on all RightFax servers and remote BoardServer machines after installing or upgrading the RightFax server.

To install the fax board drivers

1. Insert the Fax Board Driver Install CD. If AutoRun is not enabled, run Setup.exe. The RightFax Hardware Module install wizard opens.
2. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation.
3. On the **Fax Hardware Selection** screen, select the type of fax boards you have installed (Brooktrout and/or Dialogic). Click **Next**.
4. Click **Install** to begin the installation.

5. If you are installing a Brooktrout fax board, the **Doc Transport Configuration** dialog box will open after the driver files have been installed. This configuration screen for the RightFax DocTransport module which lets you configure the methods by which RightFax will be able to transmit documents. This module lets you configure fax boards for conventional fax transmission, as well as set up RightFax for SMS messaging, Fax-over-IP, DOCPlus, and some specific Intel and Eicon fax boards. For information on properly completing the options in the DocTransport module **Transport Configuration** dialog box, refer to the *RightFax Administrator's Guide*.

6. After you close the **Transport Configuration** dialog box, click **Finish** to complete the RightFax Hardware Module install wizard.

If you installed drivers for the Dialogic DM3 fax board series, a separate Dialogic board configuration program must be run. For information on completing this installation and subsequent configuration, refer to the documentation included with your fax board or contact your board manufacturer.

7. When prompted to restart the computer, select **Yes**.

Installing the RightFax Web Applications

RightFax includes these Web-based applications that can be installed on servers running Microsoft IIS version 5.0 or higher:

- Enterprise Fax Manager Web Edition (also requires .NET Framework 1.1 or greater)
- RightFax Web Access (also requires .NET Framework 1.1 or greater)
- RightFax Certified Delivery
- RightFax SOAP Server

These IIS applications should *not* be installed on the same computer as the RightFax server software, even if IIS is installed on the RightFax server. Captaris recommends that all IIS applications be installed on a dedicated IIS server, separate from the RightFax server.



Tip Servers running Microsoft Windows 2003 do not have IIS installed by default. On Windows 2003, IIS 6.0 must be selected as an optional component during the operating system installation

To install one or more of these applications, access the IIS server on which the applications will be installed and run the server installation (described on [page 25](#)). Select the applications to install under the “IIS” heading in the **Setup Features** screen.

If you are installing any of these applications on a server running IIS version 6.0, you must change some of the default settings in the IIS configuration. These changes can be made either before or after you install the RightFax client applications, but they must be completed before these applications will work on computers running IIS 6.0:

- For Windows 2000 Server and Windows 2003 Server, you must register **ASP.NET** as a Web Service Extension. To do this, click **Start > Run**, then type **cmd**. Enter the following at the command prompt, and press ENTER:
C:\Windows\Microsoft.NET\Framework\v1.*\aspnet_regiis -i
where v1.* is the most recent version of .NET Framework on your server.
- In Internet Information Services Manager, **Active Server Pages**, **ASP.NET**, and **ISAPI Extensions** must be enabled. These features are enabled from the Web Service Extensions folder.
- Parent Paths must be enabled, either for the Default Web Site as a whole, or for the SecureDocs virtual directory which appears after the installation of Certified Delivery. Edit the properties of either of these sites and select the **Directory** tab. Click **Configuration**, open the **Options** tab, and select **Enable Parent Paths**.

Configuring SQL Server for RightFax Web Access

If you install SQL Server using Windows Authentication mode and plan to use RightFax Web Access, then you must configure specific RightFax services to run as a local Administrator, and then edit a configuration file so that users are able to log in.

To configure RightFax services

1. Choose **Start > Settings > Control Panel**, then double-click **Administrative Tools**.
2. Double-click **Services**.
3. Right-click **RightFax DocTransport Module** and choose **Properties**.
4. Display the **Log On** tab, then select **This account**. Enter the credentials of a user with local Administrator rights.
5. Click **OK**.
6. Repeat this procedure for these services:
 - RightFax Database Module
 - RightFax Server Module
 - RightFax Remoting

Accessing RightFax Web Access from a Browser

After RightFax Web Access has been installed on an IIS server, your RightFax clients can access their fax mailboxes from Internet Explorer version 6 or higher by entering the following URL:

`http://ServerName/WebUtil`

Where *ServerName* is the machine name of the IIS server where Web Access is installed.

`http://ServerName/WebUtil?server=test`

Installing the SOAP client application

The SOAP client installation lets RightFax users use the Print-to-Fax feature from any computer with an Internet connection. The SOAP server must be installed on an IIS server running version 9.0 of RightFax Web Access. The SOAP client then accesses RightFax through that server. This provides RightFax functionality to home-office or other remote employees who do not have direct access to your organization's network. There are two components to the SOAP installation: install the SOAP server on the IIS computer running RightFax Web Access, and then install the SOAP client on the remote client computers.

Installing the SOAP Client

When you install the SOAP server on the Web Access IIS server, the SOAP client installation file RightFax Client for the Web.exe is installed in the Program Files\RightFax\WebApps\WebUtil\Client Install folder. You must send this file via e-mail, copy it to a removable storage medium, or otherwise make it available to the remote clients. Follow these steps on each remote computer to install the SOAP client:

1. Run the RightFax SOAP client installation file RightFax Client for the Web.exe.
2. At the introductory screen, click Next.
3. Enter the Web address of the SOAP server (e.g., www.MyCompany.SOAPServer.com) and the machine name of the RightFax server when prompted. Click Next.
4. Click Install to begin the installation. A status bar indicates the progress of the installation.
5. When the installation is complete, click Finish.

Using the SOAP Client

After you install the RightFax SOAP client, a RightFax tray icon will appear in the computer's Start bar. Users can access RightFax Print-to-Fax features through the shortcut menu from this icon. Users can also print documents directly to the RightFax Fax Printer (a new printer type that the client installation adds), which prompts for fax addressing information and transmits the document via the RightFax server.

Repairing the RightFax Server Installation

The RightFax Repair installation replaces missing or corrupted RightFax program files or Windows Registry settings, and retains your fax database and configuration settings.

To repair an installation

1. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run AutoRun.exe.
2. In the menu of install options, select the option to install the RightFax server. The RightFax install wizard opens.
3. Click **Next** at the opening screen, select the **Repair** option, and then click **Next**.
4. Click **Install** to begin the Repair installation.
5. When the Repair installation is complete, click **Finish**.

Uninstalling the RightFax Server

To ensure that all RightFax components are completely uninstalled, you must remove all separately installed RightFax components (the fax hardware drivers, AutoReply, etc.) before uninstalling the RightFax server. These components can be uninstalled from Add/Remove Programs in Windows Control Panel.

To uninstall the RightFax server



Warning When you uninstall the RightFax server, all RightFax program files, Windows Registry settings, and shortcuts are removed. In addition, all of your RightFax configuration settings are removed. The RightFax database, however is not removed and must be manually removed using SQL protocols. Captaris recommends that you back up the contents of the entire RightFax folder before uninstalling the software. For information on creating a backup of the RightFax server, refer to the RightFax Administrator's Guide.

1. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run AutoRun.exe.
2. In the menu of install options, select the option to install the RightFax server. The RightFax install wizard opens.
3. Click **Next** at the opening screen, select the **Remove** option, and then click **Next**.
4. Click **Remove** to uninstall the RightFax server.

5. When the uninstall process is complete, click **Finish**.



Note The RightFax installation will use the first compatible printer driver it finds to create the HPFAX printer. If no compatible driver is found, RightFax will install one automatically. If this occurs, this driver and its associated files will not be removed if RightFax is uninstalled. In a Microsoft Windows 2000 and 2003 installation, the printer driver files reside at `..Windows\System32\Spool\Drivers\W32X86\3` and include the following:

- HPLJ5.BUD
- HPLJ5.GPD
- PCL5ERES.DLL
- STDNAMES.GPD
- TTFSUB.GPD
- UNIDRV.DLL
- UNIDRV.HLP
- UNIDRVUI.DLL
- UNIRES.DLL

Using Enterprise Fax Manager

With the Enterprise Fax Manager program, an administrator can manage users, groups, signatures, forms, printers, billing codes, library documents, and more, for all RightFax servers from one application.

Enterprise Fax Manager (EFM) is a client application that can be run from any Windows 2000 or Windows 2003 computer, and it is installed on the RightFax server computer when you run the server installation.

Running the Enterprise Fax Manager program

After the RightFax server software has been installed, run Enterprise Fax Manager from the **Programs** list in the **Start** menu. When you run Enterprise Fax Manager for the first time, it will try to log on under your network user ID. If you did not log on to the network as “Administrator” a **Login** dialog box will appear. Enter a user ID and password with RightFax administrative access.



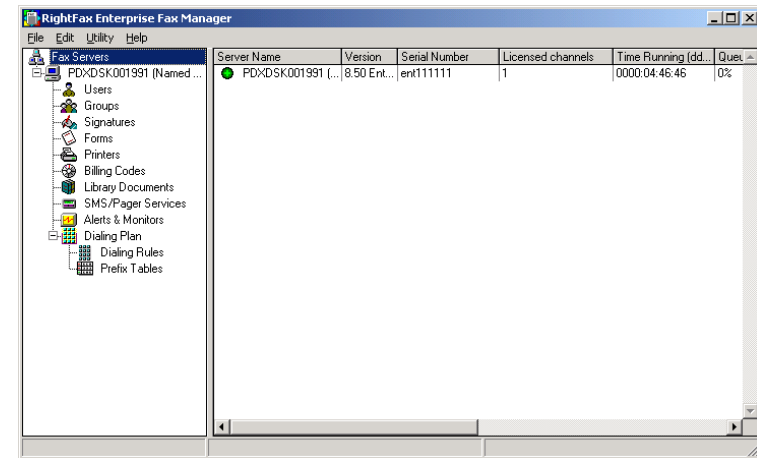
Important When the RightFax server software is installed, a RightFax user account is created called “administrator” with a blank password. Use this account to open Enterprise Fax Manager for the first time. Once you are running Enterprise Fax Manager, you can create a new administrative account with password protection.

The Enterprise Fax Manager window

Enterprise Fax Manager displays data and statistics about RightFax servers and the components of each server such as users and groups. In the left pane of the window is a tree structure that displays each of the fax servers on your network and each fax server’s components. To appear in this list, a RightFax server must be opened. To open a RightFax server on your network, select **File > Open** and enter the name of the server when prompted.

The right pane displays details of the selected fax server or component. Items listed on the right, such as individual users or library documents, are referred to as database objects. Database objects can be added, deleted, and modified according your needs.

Figure 3.1 The Enterprise Fax Manager Window



For more information on configuring fax servers and database objects using Enterprise Fax Manager, refer to the *RightFax Administrator's Guide*.

Running Silent Installs of the Server and Fax Board Drivers

Both the RightFax server and Fax Board Driver installation programs use Microsoft Windows Installer (Msiexec.exe), which is an executable program that interprets packages and installs products. Msiexec.exe enables you to install or upgrade the RightFax server silently (without user interaction or prompts). A silent installation can be used for a large-scale enterprise deployment to multiple RightFax servers.

The installation program is not designed to run on a remote computer. To use it to install on a remote computer, a third-party application such as SMS is required.

The following table describes some of the Msiexec.exe installation command line options you can use. For more detailed information and additional options, please refer to Microsoft documentation for Msiexec.exe.

Table 3a Command Line Options for Microsoft Windows Installer

Property	Parameters	Description
/i	path/filename	Installs or configures a product from a specified path and filename. Use the format: <i>/i path\filename</i>

Table 3a Command Line Options for Microsoft Windows Installer (Continued)

Property	Parameters	Description
/l	[i w e a r u c m o p v + !] <i>Logfile</i>	Specifies the path to a log file. Use the following flags to indicate the information to log: i - Status messages w - Nonfatal warnings e - All error messages a - Startup of actions r - Action-specific records u - User requests c - Initial UI parameters m - Out-of-memory or fatal exit information o - Out-of-disk-space messages p - Terminal properties v - Verbose output + - Append to existing file ! - Flush each line to the log "*" - Wildcard; log all information except the v option. To include the v option, specify "/l*v".

Table 3a Command Line Options for Microsoft Windows Installer (Continued)

Property	Parameters	Description
/q	n b r f	<p>Sets the user interface level.</p> <p>n - Setup does not prompt the user for information. It does not display progress indicators as it installs, and it does not display a completion message at the end of the installation.</p> <p>b - Setup does not prompt the user for information, but it does display progress indicators and a completion message at the end of the installation.</p> <p>r - Setup does not prompt the user for information. It does display progress indicators as it installs, but it does not display a completion message at the end of the installation.</p> <p>f - Setup prompts the user for information, and it does display progress indicators and a completion message at the end of the installation.</p>

Table 3a Command Line Options for Microsoft Windows Installer (Continued)

Property	Parameters	Description
reboot	Force Suppress ReallySuppress	<p>Force - Always prompts for a reboot at the end of the installation. The setup program will prompt the user with an option to reboot at the end. If there is no user interface, the system automatically reboots at the end of the installation.</p> <p>Suppress - Suppresses prompts for a reboot at the end of the installation. The setup program will prompt the user with an option to reboot during the installation if it detects that a reboot is required to complete the installation. If there is no user interface, the system automatically reboots if one is required to complete the installation. Reboots at the end of the installation. For example, reboots that are caused by an attempt to install a file in use are suppressed.</p> <p>ReallySuppress - Suppresses all reboots and reboot prompts if the setup program detects that a reboot is required to complete the installation. Suppresses all reboots and reboot prompts at the end of the installation. Both the reboot prompt and the reboot itself are suppressed. For example, reboots at the end of the installation that are caused by an attempt to install a file in use are suppressed.</p>

To obtain information about installation errors, you must generate a log file with the /L option. Problems with the installation or configuration are preceded by "Error" in the log.

As part of the silent installation, you must install Microsoft Windows Installer, version 2.0 or later. This program is included on the root of the RightFax server CD and is called Instmsiw.exe.

Running a silent install of the RightFax server software

There are also several advanced RightFax command line options you can set, described in the following table. The command line format for these options is **option="value"**

The silent install for RightFax does not support installing a separate MSDE SQL database on the RightFax server. The silent installation option can only be used when connecting to an existing SQL server.

Table 3b RightFax Advanced Command Line Options (Continued)

Property	Parameters	Description
RFLANGUAGE	<language>	Specify what language the RightFax clients will use. This is set to English by default.
RFSERVERNAME	<servername>	Specify the RightFax server the clients, IIS, or remote services will connect to. For clients, this sets the server the client will open when first installed. For IIS and remote services it is used to specify the server to connect to for configuration info or settings.

Table 3b RightFax Advanced Command Line Options

Property	Parameters	Description
INSTALLLEVEL	1 2 3	Controls what features are visible to the user. <ul style="list-style-type: none"> • 1 = Clients with no EFM • 2 = Clients with EFM • 3 = All features available
IS_SQLSERVER_DATABASE	<database>	The name of the database to create on the SQL server. Default is RightFax.
IS_SQLSERVER_PASSWORD	<password>	Password used to log on to the SQL server if SQL authentication is used.
IS_SQLSERVER_SERVER	<server>	The name of the SQL server to connect to.
IS_SQLSERVER_USERNAME	<user>	User name used to log on to the SQL server if SQL authentication is used.

The install properties text file

You must specify RightFax server installation properties and installed components in a file called ServerProperties.txt. A sample properties text file is included on the RightFax server CD. Unspecified properties use the default values. The RightFax server properties are listed in ["Table 3c: RightFax Server Installation Properties"](#) on [page 36](#).

For a new server installation, the ServerProperties.txt file must contain these settings:

```

INSTALL_SERVER = TRUE
RFLANGUAGE = English
SMTPHOST = <ServerName>
SERIALNUM = <SerialNumber>
WORKSRV_USERID = <Domain\UserName>
WORKSRV_PASSWORD = <Password>
INSTALLDIR = C:\Program Files\RightFax\
ALLUSERS = 1
IS_SQLSERVER_SERVER = <Server>
IS_SQLSERVER_USERNAME = <User>
IS_SQLSERVER_PASSWORD = <Password>

```

For a server upgrade, the ServerProperties.txt file must contain these settings:

```
INSTALL_SERVER = TRUE
RFLANGUAGE = English
ALLUSERS = 1
```

```
IS_SQLSERVER_SERVER = <Server>
IS_SQLSERVER_USERNAME = <User>
IS_SQLSERVER_PASSWORD = <Password>
```



Caution *The RightFax silent install performs no error checking. If you attempt to install components for which the server does not meet the minimum requirements, the silent install will fail.*

Table 3c: RightFax Server Installation Properties

Property	Value	Description
SMTPHOST	<servername>	Specify the name of the SMTP server on the network through which fax documents that are addressed to e-mail recipients will be sent.
INSTALLDIR	<install path> Default: c:\program files\rightfax\	Specify the path and the folder on the server where the RightFax software will be installed. The value must end with a backslash (\).
SERIALNUM	<serial number>	Specify the product serial number. This property is required for new installations. If you are upgrading from an earlier version, this property is not required. You must delete this line or comment it from the properties text file so that it is not read by the installation program. If you keep this property in the properties text file without specifying the product serial number, then the serial number that is stored on your RightFax server will be deleted.
WORKSRV_PASSWORD	<password>	This property is required for new installations. If you are upgrading from an earlier version, this property is not required. Specify the password for the service account that the RightFax services will use to start. This should be an account with administrative privileges on the RightFax server. The password is case-sensitive.
WORKSRV_USERID	<domain\userID>	This property is required for new installations. If you are upgrading from an earlier version, this property is not required. Specify the domain or workgroup and user ID for the service account that the RightFax services will use to start. This should be an account with administrative privileges on the RightFax server. Use the format domain\userID.
RFSERVERNAME	<server>	Specify the RightFax server the modules of the install will communicate with. This property is required for all subfeatures except the server.

Table 3c RightFax Server Installation Properties (Continued)

Property	Value	Description
IUSRACCOUNT	<userID>	Specify the anonymous IIS user account to use for IIS features.
ALLUSERS	1 or 0	Specify "1" to install for all users on the system, "0" to have it install for only the current user. This value must be set to 1 for a server install.
NUMREMOTEWOR K SERVERS	<number>	Specify the number of remote WorkServers to install on the remote machine. This number must not push the total number of WorkServers above 16.
INOUTDIR	<path\folder>	Specify the directory to put the In/Out directories into for the Exchange 2000 Connector feature.
INSTALL_SERVER	TRUE	Set to "TRUE" to install the RightFax Server feature.
INSTALL_EFM	TRUE	Set to "TRUE" to install the Enterprise Fax Manager feature.
INSTALL_FAXCTRL	TRUE	Set to "TRUE" to install the RightFax Print Driver feature.
INSTALL_FAXUTIL	TRUE	Set to "TRUE" to install the FaxUtil feature.
INSTALL_OUTLOOK	TRUE	Set to "TRUE" to install the RightFax Outlook Client feature.
INSTALL_MAPI PRINTER	TRUE	Set to "TRUE" to install the MAPI Print Driver feature.
INSTALL_VIMPRINTER	TRUE	Set to "TRUE" to install the VIM Print Driver feature.
INSTALL_AUTOREPLY CLIENT	TRUE	Set to "TRUE" to install the AutoReply Client feature.
INSTALL_INTERACTION	TRUE	Set to "TRUE" to install the Interaction Client feature.
INSTALL_PAPERPORT	TRUE	Set to "TRUE" to install the Paperport Client feature.
INSTALL_WEBEFM	TRUE	Set to "TRUE" to install Enterprise Fax Manager.
INSTALL_WEBCLIENT	TRUE	Set to "TRUE" to install the Web Client feature.
INSTALL_CERTIFIED DELIVERY	TRUE	Set to "TRUE" to install the Certified Delivery feature.
INSTALL_EXCH2K CLIENT	TRUE	Set to "TRUE" to install the Exchange 2000 MMC Client feature.
INSTALL_EXCH2K CONNECTOR	TRUE	Set to "TRUE" to install the Exchange 2000 Connector feature.

Table 3c RightFax Server Installation Properties (Continued)

Property	Value	Description
INSTALL_REMOTE_ALERTING	TRUE	Set to "TRUE" to install the Remote Alerting and Monitoring feature.
INSTALL_REMOTE_WORKSERVER	TRUE	Set to "TRUE" to install the Remote WorkServer feature.
INSTALL_REMOTE_BOARDSERVER	TRUE	Set to "TRUE" to install the Remote Boardserver feature.
INSTALL_JAVAXML	TRUE	Set to "TRUE" to install the Java/XML feature.

The following is an example of a batch file that silently installs Microsoft Windows Installer and the RightFax server. It generates the log file named "RightFax Server.log":

```
@echo calling silent install
@time /T
msiexec PROPERTIESFILE="c:\temp\ServerProperties.txt" /i
"D:\RightFax Product Suite.msi" /q /! *v "%temp%\RightFax
Server.log"
@time /T
```

After the silent installation, additional configuration of the server may be needed. Refer to the *RightFax Administrator's Guide* for instructions on configuring the server.

Running a silent install of the fax board drivers

You must specify fax board driver installation properties at the command line or in a properties text file. An example properties text file called HardwareProperties.txt is included on the root of the RightFax server CD. The fax board driver properties are listed in the following table.

Table 3d Fax Board Driver Installation Properties

Property	Value	Description
BOARD_BROOK	TRUE	Install Brooktrout fax board drivers. You can specify both Brooktrout and Intel Dialogic fax board drivers in the command.
BOARD_DIALOGIC	TRUE	Install Intel Dialogic fax board drivers. You can specify both Brooktrout and Intel Dialogic fax board drivers in the command.

Following is an example of a batch file that silently installs Microsoft Windows Installer and the RightFax fax board drivers. It generates the log file named "RightFax Hardware.log":

```
@echo calling silent hardware install
@time /T
msiexec PROPERTIESFILE="c:\temp\HardwareProperties.txt" /i
"D:\RightFax Fax Board Driver.msi" /q /! *v "%temp%\RightFax
Hardware.log"
@time /T
```

After the silent installation, additional configuration of the fax boards may be needed. To configure the boards after installation using the BoardServer configuration program, refer to the *RightFax Administrator's Guide*.

■ ■ ■

Chapter 4

Installing the RightFax Client Applications

The RightFax software includes the following client applications that let RightFax users send and receive faxes via the RightFax server and also let administrators manage RightFax servers from remote computers:

- “Enterprise Fax Manager” (page 41)
- “RightFax Print Driver” (page 42)
- “FaxUtil” (page 42)
- “Outlook Advanced Fax Extensions” (page 42)
- “MAPI Print Driver” (page 42)
- “VIM Print Driver” (page 42)
- “AutoReply Client” (page 42)

These client applications can be installed in the following languages:

- English
- French
- French-Canadian
- German
- Italian
- Portuguese
- Spanish

Before installing the RightFax client applications to your users' computers, you should identify which applications are appropriate for each user and then install only those applications.

Enterprise Fax Manager

Enterprise Fax Manager is a Windows-based application that provides RightFax administrators access to all RightFax servers on the network. Enterprise Fax Manager lets administrators manage all aspects of the RightFax server including managing users and other database objects, starting and stopping RightFax services, and monitoring server statistics. This application should be installed on all computers from which RightFax administrators will be managing the servers. For information about running Enterprise Fax Manager, refer to the *RightFax Administrator's Guide*.

A Web-based version of Enterprise Fax Manager (Enterprise Fax Manager Web Edition) can be installed on a Microsoft IIS server on your network. This version of Enterprise Fax Manager provides all the same functionality as the Windows version, but is accessible both locally and remotely via the Web using any Web browser. This version of Enterprise Fax Manager is not installed as a client application. For information on installing Enterprise Fax Manager Web Edition, see “[Installing the RightFax Web Applications](#)” on [page 28](#).

RightFax Print Driver

The RightFax Print Driver lets users fax documents directly from the applications used to create them (such as Microsoft Word.) The print driver also installs a RightFax tray icon in the Windows taskbar that lets users configure fax options, run fax client applications, send faxes, and set the default printer. This application should be installed on all computers from which RightFax users will be sending and receiving faxes.

FaxUtil

FaxUtil is a Windows-based fax mailbox tool that lets users send, receive, view, edit, and manage faxes. This application should be installed on all computers from which RightFax users will be sending and receiving faxes, unless you will be installing alternative client applications such as the RightFax Web Client, the Client for Microsoft Outlook (described in the *RightFax Gateway for Microsoft Exchange Guide*), or the Lotus Notes Client (described in the *RightFax Gateway for Lotus Notes Guide*). For information about running FaxUtil, refer to the FaxUtil online help which is installed with FaxUtil.

A Web-based version of FaxUtil (RightFax Web Access) can be installed on a Microsoft IIS server on your network. This version of FaxUtil provides all the same functionality as the Windows version, but is accessible both locally and remotely via the Web using any Web browser. This RightFax mailbox tool is not installed as a client application. For information on installing the RightFax Web Client, see [“Installing the RightFax Web Applications”](#) on [page 28](#).

Outlook Advanced Fax Extensions

The Outlook Advanced Fax Extensions enable advanced fax functionality in your users' Outlook mailboxes. This application should be installed on computers running Microsoft Outlook only if you will be installing the RightFax Gateway for Microsoft Exchange. For information about using the Advanced Fax Extensions, refer to the *RightFax Gateway for Microsoft Exchange Guide*.

MAPI Print Driver

The RightFax MAPI (Messaging Application Programming Interface) Print Driver lets fax users send fax images as e-mail attachments using MAPI-compliant applications such as Microsoft Outlook, Microsoft Mail, and Novell Groupwise. When the user prints a document using this print driver, a MAPI-compliant e-mail application window opens with the document attached as a TIFF file. The e-mail message can then be addressed and sent. This application should be installed on all computers to which you want to provide this functionality. Before installing this application, make sure that a PCL print driver is installed on the client's computer.

MAPI printing is currently not supported under Windows 2003 Terminal Server.



Note When faxing from Excel 97 with the MAPI print driver, in the Excel Page Setup settings, set the print quality to 200 dots-per-inch (DPI) to obtain the correct TIFF image quality.

VIM Print Driver

The RightFax VIM (Vendor Independent Messaging) Print Driver lets fax users send fax images as e-mail attachments using VIM-compliant applications such as Lotus Notes and Lotus cc:Mail. When the user prints a document using this print driver, a VIM-compliant e-mail application window opens with the document attached as a TIFF file. The e-mail message can then be addressed and sent. This application should be installed on all computers to which you want to provide this functionality. Before installing this application, make sure that a PCL print driver is installed on the client's computer.

VIM printing is currently not supported under Windows 2003 Terminal Server.

AutoReply Client

The AutoReply service monitors one or more RightFax mailboxes for inbound faxes and automatically faxes a response to the sender based on each sender's caller service identification (CSID)

number. The AutoReply Client lets administrators configure the AutoReply service from any computer on the network. This application should be installed on all computers from which RightFax administrators will be managing the AutoReply service. For information about AutoReply, refer to the *RightFax Administrator's Guide*.

RightFax Client Computer Requirements

RightFax client applications for this version can be installed only on computers running the following operating systems:

- Microsoft Windows XP Professional, SP2
- Microsoft Windows 2000 Professional, SP4

The minimum hardware requirements for the client computer vary depending on the operating system you are running.

Minimum hardware requirements for Microsoft Windows XP Professional

Computer/Processor	233 MHz or higher Pentium-compatible CPU (300 MHz recommended)
Memory	64 MB RAM (128 MB recommended)
Hard drive	1.5 GB
CPU support	Up to two CPUs per computer
Drive	CD-ROM or DVD drive
Display	VGA monitor running at a resolution of 800 × 600 or higher
Keyboard/Mouse	Required

Minimum hardware requirements for Microsoft Windows 2000 Professional

Computer/Processor	133 MHz or higher Pentium-compatible CPU
Memory	64 MB RAM
Hard drive	2 GB with 650 MB free space
CPU support	Up to two CPUs per computer
Drive	CD-ROM or DVD drive
Display	VGA monitor running at a resolution of 800 × 600 or higher
Keyboard/Mouse	Required

Upgrading the RightFax Client Applications

Because newer versions of the RightFax client applications may not be compatible with older versions of the RightFax server, all of the RightFax servers on your network that will be accessed by fax users should be upgraded before upgrading the client applications.

To upgrade existing client applications, complete the steps for client installation ([page 45](#)).



Warning In FaxUtil versions 8.0 and later, users can create nested folders, which is not supported in earlier versions. In an environment where users can switch between FaxUtil version 8.0 (or later) and earlier versions, any folders created in the later version of FaxUtil won't appear in earlier versions of the client. Similarly, folders created in earlier versions of FaxUtil will not appear in FaxUtil 8.0. However, folders created in earlier versions of FaxUtil will appear in FaxUtil versions 8.5 and later in the All folder.

Before You Begin

By default, the RightFax client installation will use the first compatible printer driver it finds to create the RightFax Print Driver. If no compatible printer driver is found, RightFax will install one automatically.



Note If RightFax installs a printer driver automatically, this driver and its associated files will not be removed if RightFax is uninstalled. In a Microsoft Windows 2000 and XP Professional installation, the printer driver files reside at `..Windows\System32\Spool\Drivers\W32X86\3` and include the following:

- `HPLJ5.BUD`
- `HPLJ5.GPD`
- `PCL5ERES.DLL`
- `STDNAMES.GPD`
- `TTFSUB.GPD`
- `UNIDRV.DLL`
- `UNIDRV.HLP`
- `UNIDRVUI.DLL`
- `UNIRES.DLL`

You can force the client installation to use a specific printer driver (if installed on the client computer) by modifying the file `Setup.ini` in the folder that contains the `Setup.exe` file (described in the next section). To specify a printer driver, edit the file `Setup.ini` with any text editor. Add a new section entitled `[CmdLine]`. Add a property to this section called `PreferredDriver` and set it to one of the following values.

Value	Print driver
-1	Select automatically (default)
0	PCL-5
1	PCL-5E
2	Adobe PostScript

For example, to force the RightFax Print Driver installation to use the Adobe PostScript print driver, add the following section to the `Setup.ini` file:

```
[CmdLine]
PreferredDriver=2
```

In addition to requiring one of these printer drivers, all RightFax client computers must have network access to the HPFAX print queue on the RightFax server.

Decreasing FaxUtil load time

The time required for each user to load the FaxUtil client application depends largely on the number of RightFax users configured on the RightFax server that FaxUtil is accessing. If the RightFax server contains a large number of users, FaxUtil may be noticeably slow to load.

If the number of users configured on the RightFax server results in slow FaxUtil load times, you can create a registry entry on client computers that disables the automatic loading of users when FaxUtil is run. The loading of user records will occur only if a user performs actions in FaxUtil that require it.

You can disable the loading of two types of user: administered users and unprotected users.

- Administered users are users that appear in a RightFax administrator's or group administrator's FaxUtil mailbox.
- Unprotected users are users who have the **Unprotected mailbox** permission set in their user profiles. These users appear in all other FaxUtil user lists as though they had delegated everyone else to allow them to access their fax mailboxes.

For RightFax administrators, disabling the loading of both administered and unprotected may be necessary. For all other FaxUtil users, it is only necessary to disable the loading of unprotected users.

To disable the loading of administered users

To disable the loading of administered users in FaxUtil on startup, close FaxUtil and then add a REG_DWORD value called LoadAdministeredUsers to HKEY_CURRENT_USER\Software\RightFAX Client\FUW32 and set the value data to 0 (zero).

To disable the loading of unprotected users

To disable the loading of unprotected users in FaxUtil on startup, close FaxUtil and then add a REG_DWORD value called LoadUnprotectedUsers to HKEY_CURRENT_USER\Software\RightFAX Client\FUW32 and set the value data to 0 (zero).

To automatically disable user loading for new FaxUtil users

These REG_DWORD values can also be applied for all new FaxUtil users on a particular computer. Modify the Windows Registry to add the REG_DWORD values described above to HKEY_LOCAL_MACHINE\Software\RightFAX Client\FUW32. When users run FaxUtil for the first time, they will be automatically configured to disable the loading of users.

RightFax Client Installation Methods

The RightFax client applications can be installed using any of the following methods:

- [“Installing the Client Applications from the RightFax CD” \(page 45\)](#)
- [“Installing the Client Applications from a Network File Share”\(page 46\)](#)
- [“Creating an Automated Client Install” \(page 46\)](#)
- [“Creating an Automated Client Uninstall” \(page 48\)](#)

Installing the Client Applications from the RightFax CD

Follow these steps to install the client applications directly from the RightFax software CD. This method is recommended only if you have a small number of RightFax client installations.

To install the RightFax client applications from the CD

1. Log on to the client computer and insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run AutoRun.exe.
2. In the menu of install options, select the option to install the RightFax product suite. The RightFax install wizard opens.
3. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
4. Enter your name, organization name, and your product serial number when prompted. Click **Next**.
5. On the **Setup Type** screen, select **Typical Client** and then click **Next**.
6. On the **Custom Setup** screen you can remove or select additional client applications you want to install. Enterprise Fax Manager, FaxUtil, the RightFax print driver, and the Microsoft Outlook fax extension (for creating and sending faxes directly from Microsoft Outlook) are already selected. When you have selected the components to install, click **Next**.
7. On the **Advanced Options** screen, you will be prompted to enter the **RightFax Server Name**. This option tells the client software where to locate the RightFax server by default. You can also change or add RightFax servers to connect to within each client application.
Click **Next**.
8. Click **Install** to begin the installation.

Installing the Client Applications from a Network File Share

You can install the RightFax client applications from a network file share by copying the Client folder from the RightFax Product Suite CD to a network file share and running setup. This installation, however, does not provide the ability to upgrade existing client applications. Existing clients you must be uninstalled prior to attempting an installation using this method. To perform a wide-scale removal of existing RightFax client applications, please see the section [“Creating an Automated Client Uninstall”](#) on [page 48](#).

To install the RightFax client applications from the network file share

1. Copy the **Client** installation folder from the root of RightFax Product Suite CD to a network file share of your choosing.
2. Log on to the client computer and browse to the shared folder on your network that contains the RightFax client install and run setup.exe. The RightFax install wizard opens.
3. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
4. Enter your name and organization name when prompted. Click **Next**.
5. On the **Setup Features** screen, remove or select additional client applications you want to install. FaxUtil, the RightFax print driver, and the Microsoft Outlook fax extension (for creating and sending faxes directly from Microsoft Outlook) are already selected. If you are unsure of the available disk space, select the **Space** button to view a synopsis of what is disk space is available. When you have selected the components to install, click **Next**.
6. On the **Advanced Options** screen, you will be prompted to enter the **RightFax Server Name**. This option tells the client software where to locate the RightFax server by default. You can also change or add RightFax servers to connect to within each client application.
Click **Next**.
7. Click **Install** to begin the installation.

Creating an Automated Client Install

If your network is equipped with Microsoft Systems Management Server (SMS), LanDesk, or a similar network management system, you can automate the installation of RightFax client software using an SMS script or equivalent command. The RightFax client installation program uses Microsoft Windows Installer (Msiexec.exe) which, when run at a command prompt, can include switches to force a quiet install, output an SMS status .smf file, and more. Refer to Microsoft documentation on the Msiexec.exe for detailed information on running it with a command.

You must install the RightFax client applications from a network file share. Installation options are set in the installer settings file, Setup.ini, which is located by default in the \Client folder on the file server where you copy the client-only install.

Modifying the command line

To create the command line, edit the Setup.ini file with a text editor. In the [Startup] section, edit the CmdLine= command.

The following table describes the installation command switches you can use. Refer to Microsoft documentation on the Windows Installer for the latest information on these command line switches.

Switch	Description
/qb	Setup does not prompt the user for information. It does display progress indicators and a completion message at the end of the installation.
/qn	Setup does not prompt the user for information. It does not display progress indicators as it installs. Does not display a completion message at the end of the installation
/qr	Setup does not prompt the user for information. It does display a completion message at the end of the installation.
/qf	Setup prompts the user for information. It does display progress indicators and a completion message at the end of the installation.

The following tables describe the command line options and properties you can use..

Table 4a RightFax Advanced Command Line Options

Property	Parameters	Description
INSTALLLEVEL	1 2 3	Controls what features are visible to the user. <ul style="list-style-type: none"> • 1 = Clients with no EFM • 2 = Clients with EFM • 3 = All features available
RFLANGUAGE	<language>	Specify what language the RightFax clients will use. This is set to English by default.
RFSERVERNAME	<servername>	Specify the RightFax server the clients, IIS, or remote services will connect to. For clients, this sets the server the client will open when first installed. For IIS and remote services it is used to specify the server to connect to for configuration info or settings.

Table 4b RightFax Client Installation Properties

Property	Value	Description
INSTALLDIR	<install path> Default: c:\program files\rightfax\	Specify the path and the folder on the server where the RightFax software will be installed. The value must end with a backslash (\).
SERIALNUM	<serial number>	Specify the product serial number. This property is required for new installations. If you are upgrading from an earlier version, this property is not required. You must delete this line or comment it from the properties text file so that it is not read by the installation program. If you keep this property in the properties text file without specifying the product serial number, then the serial number that is stored on your RightFax server will be deleted.
ALLUSERS	1 or 0	Specify "1" to install for all users on the system, "0" to have it install for only the current user. This value must be set to 1 for a server install.
INSTALL_EFM	TRUE	Set to "TRUE" to install the Enterprise Fax Manager feature.

Table 4b RightFax Client Installation Properties (Continued)

Property	Value	Description
INSTALL_FAXCTRL	TRUE	Set to "TRUE" to install the RightFax Print Driver feature.
INSTALL_FAXUTIL	TRUE	Set to "TRUE" to install the FaxUtil feature.
INSTALL_OUTLOOK	TRUE	Set to "TRUE" to install the RightFax Outlook Client feature.
INSTALL_MAPI PRINTER	TRUE	Set to "TRUE" to install the MAPI Print Driver feature.
INSTALL_VIMPRINTER	TRUE	Set to "TRUE" to install the VIM Print Driver feature.
INSTALL_AUTOREPLY CLIENT	TRUE	Set to "TRUE" to install the AutoReply Client feature.
INSTALL_INTERACTION	TRUE	Set to "TRUE" to install the Interaction Client feature.
INSTALL_PAPERPORT	TRUE	Set to "TRUE" to install the Paperport Client feature.
INSTALL_EXCH2K CLIENT	TRUE	Set to "TRUE" to install the Exchange 2000 MMC Client feature.

Creating an Automated Client Uninstall

If your network is equipped with Microsoft Systems Management Server (SMS), LanDesk, or a similar network management system, you can automate the uninstallation of RightFax client software using an SMS script or equivalent command. The RightFax client installation program uses Microsoft Windows Installer (Msiexec.exe) which, when run at a command prompt, can include

switches to force a quiet install, output an SMS status .smf file, and more. Refer to Microsoft documentation on the Msiexec.exe for detailed information on running it with a command.

You must install the RightFax client applications from a network file share. Installation options are set in the installer settings file, Setup.ini, which is located by default in the \Client folder on the file server where you copy the client-only install.

Modifying the command line

1. To create the command line, edit the Setup.ini file with a text editor. In the [Startup] section, edit the CmdLine= command.
2. Remove all text following the *CmdLine=* entry.
3. Add the command of:
CmdLine=/qn Remove=All
4. Save and close Setup.ini.

You may now use your network management system software to remove the RightFax clients. The options you have just entered will uninstall the RightFax clients with no user interaction whatsoever and will reboot all workstations (required). Upon restart, you may proceed with the automated install as outlined in the section [“Creating an Automated Client Install”](#) on page 46.

Configuring Windows 2000 and 2003 Terminal Services to Support RightFax Client Sessions

RightFax client applications can be installed on and run in multiple sessions from a Windows 2000 or 2003 Server using terminal services. Running the RightFax client in the Windows terminal server environment requires only one client install directly on the server configured for terminal services, but supports an unlimited number of simultaneous client sessions.

This installation also supports (but does not require) Citrix MetaFrame.

To install the RightFax client using Windows 2000 or 2003 Terminal Services

1. Log on to the Windows server using an account with administrative access.
2. Insert the RightFax Product Suite CD. Close the RightFax splash screen if autorun is enabled.
3. On the Windows Server configured to use terminal services, go to the Control Panel > Add/Remove Programs.
4. Choose **Add New Programs**.
5. Select the ‘CD or Floppy’ or floppy button and click **Next**.
6. Browse to the Client\setup.exe file and click **Open** followed by **Next**.
7. Install the RightFax client according to the instructions in the section [“RightFax Client Installation Methods”](#) on page 45.

Troubleshooting the Client Installation and Configuration

The following table lists the most common error messages that may appear after installing the RightFax client applications with the probable causes and solutions.

Error or error message	Possible solutions
The server is unavailable	Verify that the RightFax Database module and RightFax RPC Server module services are running on the RightFax server.
The server is using different network protocols	Check the Networking program in Control Panel on the Windows NT server and verify that the protocols installed and enabled match those used by the clients.

Error or error message	Possible solutions
The common network protocol being used is not routed between LAN segments	<ul style="list-style-type: none"> • Try running a client on the same LAN segment as that of the server. Modify the appropriate bridge or routers to route the proper protocols. • Update the server and clients to use a routed protocol. • If the server machine has multiple network adapters installed, try removing all but one of the adapters and allow other routers on the network to route the packets.
The Windows NT server running RightFax is not configured to support NetWare clients	Verify that the Windows NT server is running gateway services for NetWare and the SAP Agent. Verify that the IPX/SPX transport is properly configured using the Network program in Windows Control Panel.
The NetWare clients are using different frame types than the Windows NT server	On the client computer, the frame type is in the Link Driver section of the NET.CFG. On the Windows NT server, the frame type is in the configuration of the NWLink IPX/SPX transport object in the Network program in Windows Control Panel. If the Windows NT server must support more than one frame type, ensure that the internal network number is a unique, non-zero number and that the Auto Frame Type Detection is disabled.

Error or error message	Possible solutions
There is no SAP agent computer accessible to both the client and server machines	<ul style="list-style-type: none"> • Verify that the client and server machines can log on to a NetWare server. Verify that the SAP Agent is installed on the Windows NT server. • Verify that the client and server are on the same network segment and that the router between the segments is configured to transport SAP type 0x640 messages.
Unable to find FaxDB service	Verify that the user logged in has access to the RightFax host file server. If the RightFax host file server is not a member, backup, or primary domain controller, then the user may not have access to the RightFax files or resource \PIPE\FAXDB. You may have to assign Guest privileges.
User ID was not found in database	RightFax has its own list of fax users and the user ID specified is not on that list. You can use Enterprise Fax Manager to add users, either individually or by reading them from the domain or file server. When RightFax is first installed, the users "Administrator" and "Default" are loaded. Initially, neither user ID has a password.
The password supplied is incorrect	You must use the correct password for the user specified. If the user has lost his password, a RightFax administrator can re-set the password in Enterprise Fax Manager.

Error or error message	Possible solutions
The RightFax fax addressing dialog box opens, but nothing appears in FaxUtil	<ul style="list-style-type: none"> • You are using a different user ID than expected. Check the RightFax Client program in Control Panel to see what user ID the software is using. • On Windows NT, the port setting for the fax printer may be incorrect. Complete the Configure Fax Printers dialog box according to the instructions in “Configuring Windows 2000 and 2003 Terminal Services to Support RightFax Client Sessions” on page 49.

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Chapter 5

Upgrading and Adding Fax Channels, User Licenses, and Optional Components

You can easily expand and extend the functionality of your RightFax server by:

- Upgrading the server (described on [page 54](#))
- Adding fax channels and user licenses (described on [page 55](#))
- Adding optional components (described on [page 56](#))

Most of these additions to your fax server can be made without installing or re-installing software. You can add new functionality to all RightFax servers using “bump codes.” Bump codes are special activation codes that enable specific functionality on the server. Bump codes are provided by Captaris support engineers or your RightFax distributor, as described in this chapter.

Checking for Installed Components

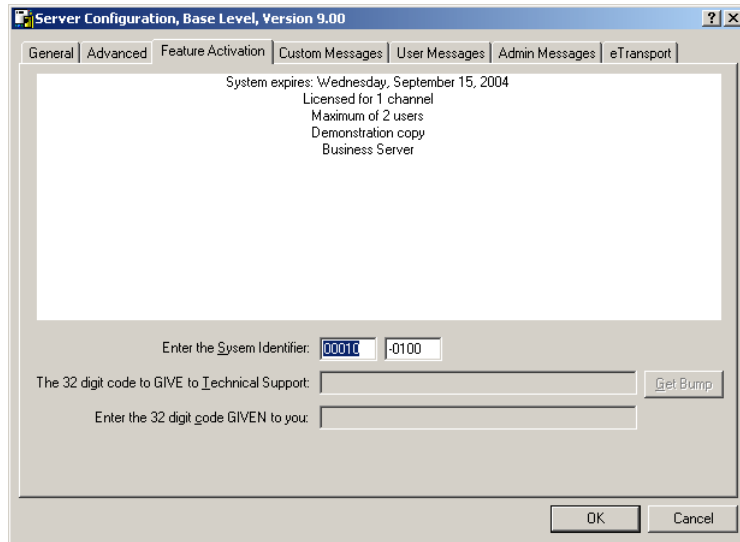
The different types of RightFax servers are installed with different numbers of licensed fax channels and users, and different optional components enabled. Follow these steps to display a list of the fax channels, users, and components that have been enabled on the server.

To check for installed components

1. Run Enterprise Fax Manager (see [“Using Enterprise Fax Manager”](#) on [page 32](#)) and select the server you want to check.
2. In the list of services in the lower-right pane, double-click **RightFax Server Module**. The RightFax Server Configuration window opens.

3. Click the **Feature Activation** tab. The server type, number of licensed fax channels and users, and enabled components are listed in the window on this tab.

Figure 5.1 The List of Enabled RightFax Components



Upgrading the RightFax Server

Captaris RightFax servers can support small, medium, and large enterprises. The following servers are available.

Table 5a RightFax Server Types

RightFax server	Description
Business server	This RightFax server supports unlimited user accounts, It includes one fax channel, and is expandable to 30 fax channels.
Enterprise server	<p>This RightFax server supports unlimited user accounts. It includes three WorkServers and one fax channel, expandable to support unlimited fax channels. This server includes the RightFax Web Client™ and the OCR Router™, OCR Converter™, Docs-on-Demand™, and TeleConnect™ modules.</p> <p>The Enterprise server is also available as a product suite that includes the RightFax Enterprise server, plus the Gateway for Microsoft® Exchange, the Gateway for Lotus Notes®, the Document Management Connector™, and the SNMP Alerting™, and PDF modules.</p>
Integration server	<p>The RightFax server and the RightFax Integration Module enable applications for information exchange. The Integration Module integrates RightFax with applications on mainframe, mid-range, and local area network host systems.</p> <p>The RightFax Business Integration Module can be installed on the RightFax Business and Enterprise servers.</p> <p>The RightFax Enterprise Integration Module can be installed on the RightFax Enterprise server.</p>
Satellite server	This RightFax server supports up to 15 user accounts. It includes two WorkServers and two fax channels.

To upgrade the RightFax server

1. Contact your RightFax distributor and purchase the appropriate server license. You will be sent a new license card that includes a new product serial number. In some cases, you may also receive a new CD, which will require an additional installation as described in the product's user guide.
2. Run Enterprise Fax Manager (see [“Using Enterprise Fax Manager”](#) on page 32) and select the server that you want to upgrade.
3. In the service name list in the lower-right pane, double-click **RightFax Server Module**. The RightFax Server Configuration window opens.
4. Click the **Feature Activation** tab.
5. In the **Enter the System Identifier** field, enter the RightFax system ID that was provided with your RightFax server software. Do not enter the product serial number, which is a separate identifier.
6. Click **Get Bump**. The RightFax service will be stopped, and a bump code will be displayed. Be prepared to provide this bump code to a Captaris support engineer.
7. Call the RightFax product support group at (520) 320-7070.



Important Some RightFax service plans require that you contact your RightFax distributor for bump codes rather than the RightFax support group. If so, you must contact your distributor at the phone number that was provided as part of your service agreement.

8. From the voice menu, select the option for support with a Captaris faxing product, and then select the option for a bump code. Your call will be routed to a support engineer.
9. Follow the instructions provided by the support engineer for upgrading your server. You will be provided with a new bump code to enter in the **Feature Activation** tab.

Adding Fax Channels and User Licenses

To add fax channels

1. Contact your RightFax distributor and purchase the appropriate channel or user license. You will be sent a new license card that includes a new product serial number.
2. Run Enterprise Fax Manager (see [“Using Enterprise Fax Manager”](#) on page 32) and select the server to which you are adding channels or user licenses.
3. In the service name list in the lower-right pane, double-click **RightFax Server Module**. The RightFax Server Configuration window opens.
4. Click the **Feature Activation** tab.
5. Click **Get Bump**. The RightFax service will be stopped, and a bump code will be displayed. Be prepared to provide this bump code to a Captaris support engineer.
6. Call the RightFax product support group at (520) 320-7070.



Important Some RightFax service plans require that you contact your RightFax distributor for bump codes rather than the RightFax support group. If so, you must contact your distributor at the phone number that was provided as part of your service agreement.

7. From the voice menu, select the option for support with a Captaris faxing product, and then select the option for a bump code. Your call will be routed to a support engineer.
8. Follow the instructions provided by the support engineer for upgrading your server. You will be provided with a new bump code to enter in the **Feature Activation** tab.

9. After you have added the new fax channels or user licenses, they must be configured for use by RightFax. New fax channels are configured in the BoardServer configuration program. New users are configured in Enterprise Fax Manager. For information on running the BoardServer configuration program or Enterprise Fax Manager, refer to the *RightFax Administrator's Guide*.

8. Follow the instructions provided by the support engineer for upgrading your server. You will be provided with a new bump code to enter in the **Feature Activation** tab.
9. After you enter the new bump code, the new RightFax component(s) will be available. For information on configuring and using RightFax components, refer to the documentation for your particular products.

Enabling New RightFax Optional Components

To enable new RightFax components

1. Contact your RightFax distributor and purchase the appropriate component license. You will be sent a new license card that includes a new product serial number.
2. Run Enterprise Fax Manager (described in the *RightFax Administrator's Guide*) and select the server to which you are adding the new component.
3. In the service name list in the lower-right pane, double-click **RightFax Server Module**. The RightFax Server Configuration window opens.
4. Click the **Feature Activation** tab.
5. Click **Get Bump**. The RightFax service will be stopped, and a bump code will be displayed. Be prepared to provide this bump code to a Captaris support engineer.
6. Call the RightFax product support group at (520) 320-7070.



Important Some RightFax service plans require that you contact your RightFax distributor for bump codes rather than the RightFax support group. If so, you must contact your distributor at the phone number that was provided as part of your service agreement.

7. From the voice menu, select the option for support with a Captaris faxing product, and then select the option for a bump code. Your call will be routed to a support engineer.

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Chapter 6

Installing RightFax in a Windows 2000 or Windows 2003 Cluster



Caution Because the RightFax server software architecture is not fully cluster-aware with replayable transaction logs, some in-process data may be lost during a cluster failover. If failover occurs, faxes that were in-process may fail conversion, may have fax conversion delayed, or may be lost and unrecoverable.

Clustering RightFax with Microsoft Windows 2000 Server

This section outlines how to install RightFax on an existing Microsoft Windows 2000 Server cluster. This is not meant as a general guide on clustering concepts, configuration, operation, or support. It is recommended that you become familiar with clustering concepts and the Windows 2000 Cluster Service prior to beginning this procedure.

To view documentation on “[Clustering RightFax with Microsoft Windows 2003 Server](#)”, see [page 65](#).

System requirements

Installing RightFax in a Windows 2000 Server cluster environment requires the following components.

- Two servers that are on the Microsoft Clustering Hardware Compatibility List (located on the Microsoft Web site) that possess two network cards.
- A local or remote SQL Server 2000 or 2005 installation.
- The Windows Cluster Service must be installed, configured, and operational.
- Windows Message Queueing.
- Print services for Unix (if using the Integration Module).
- MDAC 2.8 or higher.
- An external RAID array running either SCSI or fiber channel.

Supported Windows Operating Systems

- Microsoft Windows 2000 Advanced Server with SP4 installed
- Microsoft Windows 2000 Datacenter Server with SP4 installed

SQL Server requirements

- When using a RightFax cluster, all versions of SQL Server must be set to Mixed Mode, with SQL authentication enabled.
- SQL Server Standard Edition cannot be installed on the RightFax cluster.
- SQL Server Enterprise Edition can be used on either a separate hardware platform or as a clustered instance on the same platform that will host RightFax.



Note For the purpose of these instructions, the name "RightFax group" will be used to designate the group where the RightFax services are to be created, regardless of the actual group chosen. "Cluster IP address" and "cluster name" will be used to designate the IP address and name of the virtual server used (the IP address and server name resources contained within the RightFax group).

Configuring RightFax BoardServers

It is strongly recommended that no RightFax BoardServers be installed on the clustered hardware. Phone lines and T1 lines cannot be clustered and will not failover in the event of a hardware problem. Captaris recommends that you use remote BoardServers, connecting to the virtual RightFax server.

Configuring the Cluster Group

All of the clustered RightFax resources must be maintained in a single cluster group. This provides complete failover protection in the event of individual resource failures. This cluster group must also include a disk resource, a server name resource, and an IP address resource. The combination of these core resources creates a virtual RightFax server. Configure the cluster group to have a preferred server and to allow fail-back.

The default group created during the Cluster service installation, named "Cluster Group," may also be used for the RightFax resources. In this case, the quorum drive is typically used as the shared installation drive for the RightFax software. While this approach may add complexity to recovery procedures in the event

of a Cluster service or disk device failure, it will not affect configuration or performance, and it is a good choice when hardware resources are limited to a single logical drive.

For the purpose of these instructions, the name 'RightFax group' will be used to designate the group where RightFax services are to be created



Important If SQL Server is installed on the same cluster, it is recommended that the RightFax resources be added to the same cluster group which contains the SQL instance to be used. This will allow a dependency to be created which will prevent the RightFax services from attempting to start if the SQL instance is unavailable.

To create a clustered print spooler

1. Open Cluster Administrator.
2. Create a new print spooler resource in the RightFax group.
3. Create a directory on the shared drive called <drive:>\SPOOL.
4. Right click on **Resources**, then click **New > Resource**.
5. The New Resource wizard will appear. In the name box, type the name of the resource (such as RightFax Print Spooler). The description can be the same as the resource name.
6. The **Resource Type** should be Print Spooler.
7. In the **Possible Owners** box, verify the presence of all nodes.
8. In the **Resource Dependencies** box, add the disk and network name resources.
9. On the **Parameters** tab, type the path to the Spool directory on the shared drive.
10. Click **Finish** to add the resource to the group.
11. Cluster the TCP/IP Print Server service. (This step is required only if the RightFax Integration Module is to be installed.)

12. Set the TCP/IP Print Server service (Print Services for Unix) to manual startup on each node. Stop the services if currently running.
13. Create a new **Generic Service** resource. Enter **LPDSVC** as the service name.
14. From the properties dialog of the new service, select the print spooler resource as a dependency.

To create cluster resources for required networking services

1. Create a new **Distributed Transaction Coordinator** resource in the RightFax group. This is done with the Comclust.exe utility installed with the Windows 2000 Cluster Service. The MSDTC resource must reside in the RightFax group. See Microsoft documentation for more information on adding and configuring the MSDTC service in a cluster.
2. Create a new **Message Queuing** resource in the RightFax group. Make it dependent on the disk and network name resources.
3. Bring all resources online.

To verify failover and failback

1. Open Cluster Administrator on the second node.
2. Verify that the primary node currently owns all resources, and that they are online.
3. Shut down the primary node and verify that all resources fail over to the secondary node.
4. Restart the primary node and verify that all resources fail back.

Installing RightFax on each cluster node

1. Ensure the primary node has control of the RightFax group, including the shared drive to which RightFax will be installed.
2. On the primary node, run the RightFax 9.3 Prerequisites Setup according to the instructions in [Chapter 3, "Running the Prerequisites Wizard"](#). Be sure to provide the network name of either the clustered SQL Server instance (if used) or the name of a remote SQL Server.
3. On the primary node, install the RightFax server software to the **shared drive** according to the instructions in [Chapter 3, "Installing the RightFax Server Software"](#) and the additional requirements outlined below.
 - Use a WorkServer service account that is a domain member and has access to all nodes (local accounts cannot be used).
 - If prompted to restart the computer at the end of the installation, select **No**.
 - Do not install the fax board hardware drivers.
4. Open the Windows Services management console and stop all running RightFax services. Set all of the RightFax services to manual start. Do not forget the Captaris Conversion Engine.
5. Open the Printers control panel on the primary node and stop sharing the HPFAX printer.
6. From Cluster Administrator, move the RightFax group to the second node. Wait for the resources to come back online.
7. Delete the entire RightFax directory from the shared drive.
8. Install RightFax on the second node, selecting the same options as during the first installation. Remember to change the installation location to the **shared drive**, not the default of C:\ProgramFiles\RightFax.
9. When asked whether to overwrite the existing database or add a new instance, select overwrite.

10. Set all of the RightFax services to manual start, and stop any that are running.
11. Open the Printers control panel on the secondary node and stop sharing the HPFAX printer.

To create the HPFAX print queue

1. Open the Printer folder on the RightFax virtual server by typing \\<cluster_name> from the Windows **Run** dialog found on the Start menu. In Windows Explorer, open the Printers control panel (folder).
2. Create a new TCP/IP port, using the shared cluster IP address as the target IP address and HPFAX as the port name.
3. Select **Custom Device Type**, and click **Settings**. Select RAW as the protocol and set the port number to 53199.
4. Select an HP LaserJet III, LaserJet 4, or LaserJet 5 printer driver and share the printer as HPFAX.
5. Open the **Properties** of the HPFAX printer, click the **Advanced** tab, and then click **Separator Page**. Enter the following for the separator page:

SharedDrive:\RightFax\bin\RightFax.sep

Where *SharedDrive* is the drive letter of the shared drive on which RightFax is installed.

6. Re-start both nodes. Once restarted, the primary node should have control of the RightFax group, including the shared drive.
7. Use Cluster Administrator to move the group to the node which was installed LAST.

Creating the RightFax Cluster Resources

To create the RightFax cluster resources, run Cluster Administrator and open the RightFax cluster group. You will create the following resources.

Table 6a RightFax Cluster Resources

Name of Resource	Type of Resource	Service Name
RightFax File Share	File Share	N/A
Captaris Conversion Engine	Generic Service	RFIsoConv
RightFax DocTransport	Generic Service	RFDocTrans
RightFax Server Module	Generic Service	RFServer
RightFax Queue Handler	Generic Service	RFqueue
RightFax RPC Server Module	Generic Service	RFRPC
RightFax Remoting Service	Generic Service	RFremote
RightFax Paging Module	Generic Service	RFpage
RightFax E-mail Gateway	Generic Service	RFemail

To create the file share resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax File Share."
3. Set **Resource Type** to **File Share**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the Disk Resource, Network Name, and IP Address resources.

7. In the **Generic File Share Parameters** box, enter the path to the RightFax directory on the shared drive. Be sure to use RightFax as the share name.
8. On the Parameters tab, click the Permissions button. Give "Everyone" both read and change permissions.
9. Click **Finish** to add the resource to the group
10. Bring the resource online.

To create the RightFax RPC Server Module resource.

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax RPC Server Module."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- "RightFax File Share" and the SQL server name (if present).
7. In the **Generic Service Parameters** box, type "RFRPC." Do not select the "use network name for communications."
8. Under **Registry Replication**, click **Add** and type "SOFTWARE\RightFax." This allows the registry information stored by RightFax to dynamically change from one node to another if the server goes down.
9. Click **Finish** to add the resource to the group.

To create the Captaris Conversion Engine resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "Captaris Conversion Engine".
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- "RightFax File Share".
7. In the **Generic Service Parameters** box, type "RFISOCONV". Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.

To create the DocTransport Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax DocTransport Module".
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax RPC Module (RFRPC).
7. In the **Generic Service Parameters** box, type "RFDOCTRANS". Do not select the "use network name for computer name" checkbox.

8. Click **Finish** to add the resource to the group.

To create the RightFax Server Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax Server Module."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax RPC Module (RFRPC).
7. In the **Generic Service Parameters** box, type "RFSERVER." Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax Queue Handler resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax Queue Handler."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- "RightFax File Share".

7. In the **Generic Service Parameters** box, type "RFQUEUE." Do not select the "use network name for computer name" checkbox.

8. Click **Finish** to add the resource to the group.

To create the RightFax Remoting Service resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax Remoting Service".
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- "RightFax File Share".
7. In the **Generic Service Parameters** box, type "RFREMOTE". Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax Paging Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter "RightFax Paging Module."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.

6. In the **Resource Dependencies** box, add the RightFax file share name- "RightFax File Share".
7. In the **Generic Service Parameters** box, type "RFPAGE." Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax E-mail Gateway resource (if installed)

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter "RightFax E-mail Gateway."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax Server resource "RFSERVER".
7. In the **Generic Service Parameters** box, type "RFEMAIL." Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.

To license your cluster

1. Take the RightFax service resources offline. Do not take the entire group offline.



Warning All RightFax services must be taken offline using Cluster Administrator. Failure to do so will result in an immediate failover.

2. From the node with ownership of the RightFax resources, open the Server Module applet located in Windows control panel.

3. License your cluster by contacting the RightFax product support group at (520) 320-7070. A support engineer will assist you through the registration process.
4. Bring all resources online after successfully licensing your cluster.

To complete the cluster installation

1. Bring all of the RightFax resources on-line.
2. From the node with ownership of the RightFax group, open Regedit.
3. Browse to HKLM\SOFTWARE\RightFax\Install\. Change the value **RFServerName** to reflect the shared network name of the RightFax group, not the name of the node.
4. Browse HKLM\SOFTWARE\RightFax\Production\. Change the value RightFaxServerName to the shared network name of the RightFax group.
5. Browse to HKLM\SOFTWARE\RightFax\Production\Servers. Here you will find a subkey with the same name as the node. Rename this subkey to the shared network name of the RightFax group.
6. From Cluster Administrator, verify that the RightFax group can be taken offline and online without errors.
7. Move the group between the nodes, verifying that all the resources start correctly on each node. Correct any issues found before proceeding.
8. Make sure the RightFax resources are online. Install remote BoardServers as required, pointing them to the shared network name of the RightFax cluster group, rather than the name of any individual node. When prompted during remote BoardServer installation, select the option to use an existing SQL Server, and supply the correct server name (clustered instance name if applicable) and logon information

Configuring the Integration Module in a Windows 2000 Cluster

Follow the instructions below if licensed for the Integration Module.

1. From the active node, open the RightFax Integration applet from the Windows Control Panel.



Note If the Integration applet does not appear in the Control Panel, locate the Shared Files folder under the RightFax Directory, and open *rfprod_ctl.cpl* to launch the applet.

2. Run the Integration Wizard or manually configure the Integration Module. Do not close the applet.



Important Change the RightFax Server name to the shared network name of the RightFax group.

3. Open the Windows registry and browse to the subkey: HKLM\SOFTWARE\RightFax\Production\RFProd.
4. Modify the command line for the three default printer inputs so that they use TCP/IP ports rather than named pipes by using the table below. The numbers at the end of the new command lines are the TCP/IP port numbers. You can select any port number that is not in use on either node of the cluster. Alternatively, you may delete and recreate existing inputs, however, you must set the new inputs to the type of "TCP/IP Port"

Table 6b

Printer Name	Default Command Line	Required Command Line
HostFax	nplisten -c "makedoc \$\$" -p hflpr	portlstn -c "makedoc \$\$" -p 8201
PCL	nplisten -c "pfilter \$\$ makedoc" -p hfpc	portlstn -c "pfilter \$\$ makedoc" -p 8202
Postscript	nplisten -c "pfilter -p \$\$ makedoc" -p hfps	portlstn -c "pfilter -p \$\$ makedoc" -p 8203

5. If additional printer inputs are needed, create them in the same way using TCP/IP ports. Named pipes will not function in the cluster environment.
6. Click OK to close the applet and create the service.
7. Verify that the RightFax Integration Module service is set to manual start.
8. Move the group to the second node.
9. Open the Integration applet on the second node. All configuration settings should be retained. Click OK to close the applet and create the service.
10. Verify that the RightFax Integration Module service is set to manual start.

Create a new Generic Service resource in the RightFax group

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter "RightFax Integration Module."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax Server resource "RFSERVER".
7. In the **Generic Service Parameters** box, type "RFPROD." Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.
9. Bring the new resource online.
10. Verify failover and failback is successful.

Configure the Integration Module Printers

1. Click Start > Run, and enter \\<cluster_name>.
2. In Windows Explorer, open the Printers folder



Important You must open the cluster printer folder belonging to the virtual machine, not the printer folder belonging to either node. If you access the printers in the usual way from Start, Settings, Printers, you are only opening the node's printer folder.

3. Create new ports for each of the printer inputs defined in the Integration applet.
4. Create a new printer port of the "Standard TCP/IP Port" type.
5. Use the shared cluster IP address as the target IP address, and HostFax as the port name.
6. Select "Custom" device type, click settings, and specify "RAW" as the protocol, and the TCP/IP port number specified in the Portlstn command line from the Production applet (8201 in the example from the earlier step).
7. Repeat to create new printer ports for each of the other default printer inputs, using HFPCL and HFPS as the port names, and the TCP/IP port numbers specified in the applet. Also create ports for any custom printer inputs to be used.
8. Create new printers for each Integration print queue. Use the printer names HostFax, HFPCL, and HFPS, and the previously created ports.



Important Use only Generic, Plain Text as the printer driver for every Integration Module print queue

Using FTP with the Integration Module

If FTP is to be used for the Integration Module, add a virtual directory to BOTH nodes using IIS Manager, with the local path being the \RightFax\Production\Inbox directory on the shared drive. It is not necessary to cluster the FTP service.

Applying Service Packs or Hot Fixes

If it is necessary to apply a RightFax service pack or hot-fix after the installation on the cluster has been completed, follow these steps:

1. Run Cluster Administrator and stop all RightFax services. Do not take the RightFax file share offline.
2. Apply the update to the active node according to the instructions provided with the update.
3. Move the group containing the RightFax services to the next node without bringing them online.
4. Apply the update to the new node according to the instructions provided with the update.
5. Apply the update to any remote BoardServers and WorkServers, if applicable.
6. From Cluster Administrator, bring the RightFax services back online.

Clustering RightFax with Microsoft Windows 2003 Server

This section outlines how to install RightFax 9.3 on an existing Microsoft Windows 2003 Server cluster. This is not meant as a general guide on clustering concepts, configuration, operation, or support. It is recommended that you become familiar with clustering concepts and the Windows 2003 Cluster Service prior to beginning this procedure.

System requirements

Installing RightFax in a Windows Server 2003 cluster environment requires the following components.

- Two servers that are on the Microsoft Clustering Hardware Compatibility List (located on the Microsoft Web site) that possess two network cards.
- A local or remote SQL Server 2000 or 2005 installation.
- The Windows Cluster Service must be installed, configured, and operational.
- Windows Application server component with Network Distributed Transaction Coordinator and Message Queuing installed.
- Print services for Unix (if using the Integration n Module).
- MDAC 2.8 or higher.

An external RAID array running either SCSI or fiber channel.

Supported Windows Operating Systems

- Microsoft Windows Server 2003 Enterprise Edition
- Microsoft Windows Server 2003 Datacenter Edition

SQL Server requirements

- When using a RightFax cluster, all versions of SQL Server must be set to Mixed Mode, with SQL authentication enabled.
- SQL Server Standard Edition cannot be installed on the RightFax cluster.
- SQL Server Enterprise Edition can be used on either a separate hardware platform or as a clustered instance on the same platform that will host RightFax.

Configuring RightFax BoardServers

It is strongly recommended that no RightFax BoardServers be installed on the clustered hardware. Phone lines and T1 lines cannot be clustered and will not failover in the event of a hardware problem. Captaris recommends that you use remote BoardServers, connecting to the virtual RightFax server.

Configuring the Cluster Group

All of the clustered RightFax resources must be maintained in a single cluster group. This provides complete failover protection in the event of individual resource failures. This cluster group must also include a disk resource, a server name resource, and an IP address resource. The combination of these core resources creates a virtual RightFax server. Configure the cluster group to have a preferred server and to allow fail-back.

The default group created during the Cluster service installation, named "Cluster Group," may also be used for the RightFax resources. In this case, the quorum drive is typically used as the shared installation drive for the RightFax software. While this approach may add complexity to recovery procedures in the event of a Cluster service or disk device failure, it will not affect configuration or performance, and it is a good choice when hardware resources are limited to a single RAID controller.

For the purpose of these instructions, the name 'RightFax group' will be used to designate the group where RightFax services are to be created.



Important *If SQL Server is installed on the same cluster, it is recommended that the RightFax resources be added to the same cluster group which contains the SQL instance to be used. This will allow a dependency to be created which will prevent the RightFax services from attempting to start if the SQL instance is unavailable.*

To create a clustered print spooler

1. Open Cluster Administrator.
2. Create a new print spooler resource in the RightFax group.
3. Create a directory on the shared drive called <drive:>\SPOOL.
4. Right click on **Resources**, then click **New > Resource**.
5. The New Resource wizard will appear. In the name box, type the name of the resource (such as RightFax Print Spooler). The description can be the same as the resource name.
6. The **Resource Type** should be Print Spooler.
7. In the **Possible Owners** box, verify the presence of all nodes.
8. In the **Resource Dependencies** box, add the disk and network name resources.
9. On the **Parameters** tab, type the path to the Spool directory on the shared drive.
10. Click **Finish** to add the resource to the group.
11. Cluster the TCP/IP Print Server service. (This step is required only if the RightFax Integration Module is to be installed.)
12. Set the TCP/IP Print Server service (Print Services for Unix) to manual startup on each node. Stop the services if currently running.
13. Create a new **Generic Service** resource. Enter **LPDSVC** as the service name.
14. From the properties dialog of the new service, select the print spooler resource as a dependency.

To create cluster resources for required networking services

1. From Cluster Administrator, take the network name resource in the RightFax group offline.
2. Edit the properties of the network name resource. Click the **Parameters** tab and select "Enable Kerberos Authentication" and click **OK**.
3. Bring the network name resource back online.
4. Create a new **Distributed Transaction Coordinator** resource in the RightFax group. Make it dependent on the disk and network name resources. See Microsoft documentation for more information on adding and configuring the MSDTC service in a Windows 2003 cluster.
5. Create a new **Message Queuing** resource in the RightFax group. Make it dependent on the disk and network name resources.
6. Bring all resources online.

To verify failover and failback

1. Open Cluster Administrator on the second node.
2. Verify that the primary node currently owns all resources, and that they are online.
3. Shut down the primary node and verify that all resources fail over to the secondary node.
4. Restart the primary node and verify that all resources fail back.

Installing RightFax on each cluster node

1. Ensure the primary node has control of the RightFax group, including the shared drive to which RightFax will be installed.
2. On the primary node, run the RightFax 9.3 Prerequisites Setup according to the instructions in [Chapter 3, "Running the Prerequisites Wizard"](#). Be sure to provide the network name of either the clustered SQL Server instance (if used) or the name of a remote SQL Server.
3. On the primary node, install the RightFax server software to the **shared drive** according to the instructions in [Chapter 3, "Installing the RightFax Server Software"](#) and the additional requirements outlined below.
 - Use a WorkServer service account that is a domain member and has access to all nodes (local accounts cannot be used).
 - If prompted to restart the computer at the end of the installation, select **No**.
 - Do not install the fax board hardware drivers.
4. Open the Windows Services management console and stop all running RightFax services. Set all of the RightFax services to manual start. Do not forget the Captaris Conversion Engine.
5. Open the Printers control panel on the primary node and stop sharing the HPFAX printer.
6. From Cluster Administrator, move the RightFax group to the second node. Wait for the resources to come back online.
7. Delete the entire RightFax directory from the **shared drive**.
8. Install RightFax on the second node, selecting the same options as during the first installation. Remember to change the installation location to the shared drive, not the default of C:\ProgramFiles\RightFax.
9. When asked whether to overwrite the existing database or add a new instance, select overwrite.
10. Set all of the RightFax services to manual start, and stop any that are running.
11. Open the Printers control panel on the secondary node and stop sharing the HPFAX printer.

To create the HPFAX print queue

1. Open the Printer folder on the RightFax virtual server by typing \\<cluster_name> from the Windows **Run** dialog found on the Start menu. In Windows Explorer, open the Printers control panel (folder).
2. Create a new TCP/IP port, using the shared cluster IP address as the target IP address and HPFAX as the port name.
3. Select **Custom Device Type**, and click **Settings**. Select RAW as the protocol and set the port number to 53199.
4. Select an HP LaserJet III, LaserJet 4, or LaserJet 5 printer driver and share the printer as HPFAX.
5. Open the **Properties** of the HPFAX printer, click the **Advanced** tab, and then click **Separator Page**. Enter the following for the separator page:


```
SharedDrive:\RightFax\bin\RightFax.sep
```

Where *SharedDrive* is the drive letter of the shared drive on which RightFax is installed.
6. Re-start both nodes. Once restarted, the primary node should have control of the RightFax group, including the shared drive.
7. Use Cluster Administrator to move the group to the node which was installed LAST.

Creating the RightFax Cluster Resources

To create the RightFax cluster resources, run Cluster Administrator and open the RightFax cluster group. You will create the following resources.

Table 6c RightFax Cluster Resources

Name of Resource	Type of Resource	Service Name
RightFax File Share	File Share	N/A
Captaris Conversion Engine	Generic Service	RFIsoConv
RightFax DocTransport	Generic Service	RFDocTrans
RightFax Server Module	Generic Service	RFServer
RightFax Queue Handler	Generic Service	RFqueue
RightFax RPC Server Module	Generic Service	RFRPC
RightFax Remoting Service	Generic Service	RFremote
RightFax Paging Module	Generic Service	RFpage
RightFax E-mail Gateway	Generic Service	RFEmail

To create the File Share resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax File Share."
3. Set **Resource Type** to **File Share**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the Disk Resource, Network Name, and IP Address resources.

7. In the **Generic File Share Parameters** box, enter the path to the RightFax directory on the shared drive. Be sure to use RightFax as the share name.
8. On the Parameters tab, click the Permissions button. Give "Everyone" both read and change permissions.
9. Click **Finish** to add the resource to the group
10. Bring the resource online.

To create the RightFax RPC Server Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter "RightFax RPC Server Module."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- "RightFax File Share" and the SQL server name (if present).
7. In the **Generic Service Parameters** box, type "RFRPC." Do not select the "use network name for communications."
8. Under **Registry Replication**, click **Add** and type "SOFTWARE\RightFax." This allows the registry information stored by RightFax to dynamically change from one node to another if the server goes down.
9. Click **Finish** to add the resource to the group.

To create the Captaris Conversion Engine resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter “Captaris Conversion Engine”.
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- “RightFax File Share”.
7. In the **Generic Service Parameters** box, type “RFISOCONV”. Do not select the “use network name for computer name” checkbox.
8. Click **Finish** to add the resource to the group.

To create the DocTransport Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter “RightFax DocTransport Module”.
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax RPC Module (RFRPC).
7. In the **Generic Service Parameters** box, type “RFDOCTRANS”. Do not select the “use network name for computer name” checkbox.

8. Click **Finish** to add the resource to the group.

To create the RightFax Server Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter “RightFax Server Module”.
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax RPC Module (RFRPC.exe).
7. In the **Generic Service Parameters** box, type “RFSERVER.” Do not select the “use network name for computer name” checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax Queue Handler resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter “RightFax Queue Handler”.
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- “RightFax File Share”.

7. In the **Generic Service Parameters** box, type “RFQUEUE.” Do not select the “use network name for computer name” checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax Remoting Service resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter “RightFax Remoting Service”.
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share name- “RightFax File Share”.
7. In the **Generic Service Parameters** box, type “RFREMOTE”. Do not select the “use network name for computer name” checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax Paging Module resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter “RightFax Paging Module.”
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.

6. In the **Resource Dependencies** box, add the RightFax file share name- “RightFax File Share”.
7. In the **Generic Service Parameters** box, type “RFPAGE.” Do not select the “use network name for computer name” checkbox.
8. Click **Finish** to add the resource to the group.

To create the RightFax E-mail Gateway resource (if installed)

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter “RightFax E-mail Gateway.”
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax Server resource “RFSERVER”.
7. In the **Generic Service Parameters** box, type “RFEMAIL.” Do not select the “use network name for computer name” checkbox.
8. Click **Finish** to add the resource to the group.

To license your cluster

1. Take the RightFax service resources offline using Cluster Administrator. Do not take the entire group offline.



Warning All RightFax services must be taken offline using Cluster Administrator. Failure to do so will result in an immediate failover.

2. License your cluster by contacting the RightFax product support group at (520) 320-7070. A support engineer will assist you through the registration process.
3. Bring all resources online after successfully licensing your cluster.

To complete the cluster installation

1. Bring all of the RightFax resources on-line.
2. From the node with ownership of the RightFax group, open Regedit.
3. Browse to HKLM\SOFTWARE\RightFax\Install\. Change the value **RFServerName** to reflect the shared network name of the RightFax group, not the name of the node.
4. Browse HKLM\SOFTWARE\RightFax\Production\. Change the value RightFaxServerName to the shared network name of the RightFax group.
5. Browse to HKLM\SOFTWARE\RightFax\Production\Servers. Here you will find a subkey with the same name as the node. Rename this subkey to the shared network name of the RightFax group.
6. From Cluster Administrator, verify that the RightFax group can be taken offline and online without errors.
7. Move the group between the nodes, verifying that all the resources start correctly on each node. Correct any issues found before proceeding.
8. Make sure the RightFax resources are online. Install remote BoardServers as required, pointing them to the shared network name of the RightFax cluster group, rather than the name of any individual node. When prompted during remote BoardServer installation, select the option to use an existing SQL Server, and supply the correct server name (clustered instance name if applicable) and logon information

Configuring the Integration Module in a Windows 2003 Cluster

Follow the instructions below if licensed for the Integration Module.

1. From the active node, open the RightFax Integration applet from the Windows Control Panel.



Note If the Integration applet does not appear in the Control Panel, locate the Shared Files folder under the RightFax Directory, and open `rfprod_ctl.cpl` to launch the applet.

2. Run the Integration Wizard or manually configure the Integration Module. Do not close the applet.



Important Change the RightFax Server name to the shared network name of the RightFax group.

3. Open the Windows registry and browse to the subkey: HKLM\SOFTWARE\RightFax\Production\RFProd.
4. Modify the command line for the three default printer inputs so that they use TCP/IP ports rather than named pipes by using the table below. The numbers at the end of the new command lines are the TCP/IP port numbers. You can select any port number that is not in use on either node of the cluster. Alternatively, you may delete and recreate existing inputs, however, you must set the new inputs to the type of "TCP/IP Port"

Table 6d

Printer Name	Default Command Line	Required Command Line
HostFax	<code>nplisten -c "makedoc \$\$" -p hfldr</code>	<code>portltn -c "makedoc \$\$" -p 8201</code>
PCL	<code>nplisten -c "pfilter \$\$ makedoc" -p hfpc1</code>	<code>portltn -c "pfilter \$\$ makedoc" -p 8202</code>
Postscript	<code>nplisten -c "pfilter -p \$\$ makedoc" -p hfps</code>	<code>portltn -c "pfilter -p \$\$ makedoc" -p 8203</code>

5. If additional printer inputs are needed, create them in the same way using TCP/IP ports. Named pipes will not function in the cluster environment.
6. Click OK to close the applet and create the service.
7. Verify that the RightFax Integration Module service is set to manual start.
8. Move the group to the second node.
9. Open the Integration applet on the second node. All configuration settings should be retained. Click OK to close the applet and create the service.
10. Verify that the RightFax Integration Module service is set to manual start.

Create a new Generic Service resource in the RightFax group

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter "RightFax Integration Module."
3. Set **Resource Type** to **Generic Service**.
4. Select the RightFax group.
5. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
6. In the **Resource Dependencies** box, add the RightFax Server resource "RFSERVER".
7. In the **Generic Service Parameters** box, type "RFPROD." Do not select the "use network name for computer name" checkbox.
8. Click **Finish** to add the resource to the group.
9. Bring the new resource online.
10. Verify failover and failback is successful.

Configure the Integration Module Printers

1. Click Start > Run, and enter \\<cluster_name>.
2. In Windows Explorer, open the Printers folder



Important You must open the cluster printer folder belonging to the virtual machine, not the printer folder belonging to either node. If you access the printers in the usual way from Start, Settings, Printers, you are only opening the node's printer folder.

3. Create new ports for each of the printer inputs defined in the Integration applet.
4. Create a new printer port of the "Standard TCP/IP Port" type.
5. Use the shared cluster IP address as the target IP address, and HostFax as the port name.
6. Select "Custom" device type, click settings, and specify "RAW" as the protocol, and the TCP/IP port number specified in the Portlstn command line from the Production applet (8201 in the example from the earlier step).
7. Repeat to create new printer ports for each of the other default printer inputs, using HFPCL and HFPS as the port names, and the TCP/IP port numbers specified in the applet. Also create ports for any custom printer inputs to be used.
8. Create new printers for each Integration print queue. Use the printer names HostFax, HFPCL, and HFPS, and the previously created ports.



Important Use only Generic, Plain Text as the printer driver for every Integration Module print queue

Using FTP with the Integration Module

If FTP is to be used for the Integration Module, add a virtual directory to BOTH nodes using IIS Manager, with the local path being the \RightFax\Production\Inbox directory on the shared drive. It is not necessary to cluster the FTP service.

Applying Service Packs or Hot Fixes

If it is necessary to apply a RightFax service pack or hot-fix after the installation on the cluster has been completed, follow these steps:

1. Run Cluster Administrator and stop all RightFax services. Do not take the RightFax file share offline.
2. Apply the update to the active node according to the instructions provided with the update.
3. Move the group containing the RightFax services to the next node without bringing them online.
4. Apply the update to the new node according to the instructions provided with the update.
5. Apply the update to any remote BoardServers and WorkServers, if applicable.
6. From Cluster Administrator, bring the RightFax services back online.

■ ■ ■

Installing and Configuring RightFax Data Sharing

Data Sharing with RightFax 9.3

The capacity of RightFax servers can be multiplied by combining two or more servers that share a common SQL database. This is accomplished by installing and configuring multiple RightFax servers to share a RightFax database and corresponding resource folders. Benefits of Data Sharing may include:

- Increased throughput for sending faxes due to internal load sharing among RightFax services.
- Multiple RightFax servers share all SQL stored data (e.g., users, delegates, phonebook entries, distribution lists, and document data such as fax status).
- All received faxes are stored on the SQL server and are available to all clients in the network.
- A common database helps maintain integrity of RightFax data.
- Redundant data is eliminated thus saving storage space.
- RightFax does not limit the number of RightFax servers that can share a common SQL database thus increasing scalability.
- Remote RightFax services can be shared by multiple machines to balance the workload from many RightFax clients.

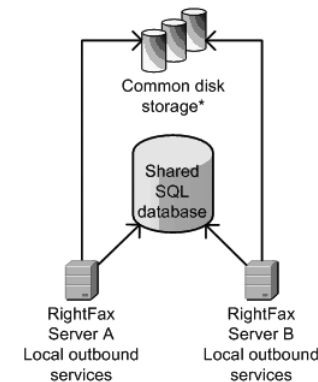


Note This feature is only available on RightFax 9.3 Enterprise Servers and must be purchased separately.

Server Topology

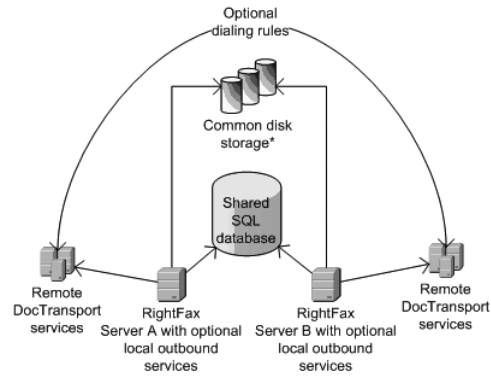
The following examples describe some basic shared configurations.

Figure 7.1 Two RightFax servers share a SQL database. Common disk storage is used to store shared RightFax resources.



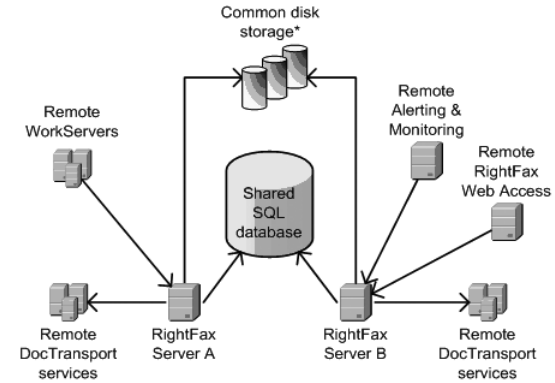
*Common disk storage:
- SAN
- Network share on file server
- Network access to a local drive on one of the RightFax servers

Figure 7.2 Two RightFax servers share a SQL database. DocTransport services are located on remote servers to off-load processing from the RightFax servers. Dialing rules specify the DocTransport services and RightFax servers from which documents will be sent. Common disk storage is used to store shared RightFax resources.



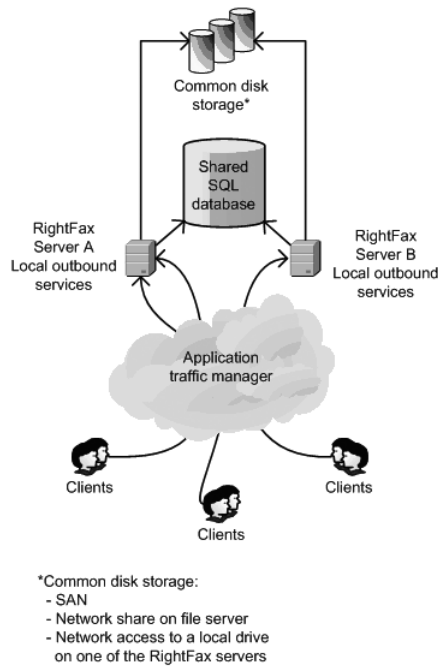
*Common disk storage:
 - SAN
 - Network share on file server
 - Network access to a local drive on one of the RightFax servers

Figure 7.3 Two RightFax servers share a SQL database. DocTransport and WorkServer services are located on remote servers to off-load processing from the RightFax servers. Dialing rules specify the DocTransport services and RightFax servers from which documents will be sent. Common disk storage is used to store shared RightFax resources.



*Common disk storage:
 - SAN
 - Network share on file server
 - Network access to a local drive on one of the RightFax servers

Figure 7.4 Two RightFax servers share a SQL database. Common disk storage is used to store shared RightFax resources. An application traffic manager, such as BIG IP, directs RightFax client traffic to available RightFax servers.



Installing RightFax Servers to Share a SQL Database

To install multiple RightFax servers that share a SQL database, complete the general steps below in conjunction with the installation instructions outlined in [Chapter 3, “Installing the RightFax Server Software”](#) or [Chapter 6, “Installing RightFax in a Windows 2000 or Windows 2003 Cluster”](#).

1. If you are upgrading, print or make a copy of the Windows registry key HKEY_LOCAL_MACHINE\Software\RightFax so that you have a copy of any changes that have been made to customize the system. In a typical shared database configuration, customization should be identical on each RightFax server.
2. Install the RightFax server on the first RightFax server computer. Define the SQL database as you are prompted during the installation.
3. Activate licensed features on the first RightFax server computer.
4. On the second RightFax server computer, run the RightFax server installation program.
5. During the installation, point the second RightFax server to the SQL database that you defined when you installed the first RightFax server.
6. During the installation, you will be prompted to overwrite or append to the existing database. Select to Append.
7. Activate licensed features on the second RightFax server, as described in step 2. To avoid license conflicts and violations, all of the RightFax servers that share a common SQL database must have the same licensed features activated.
8. Repeat steps 4 through 7 for each added RightFax server.

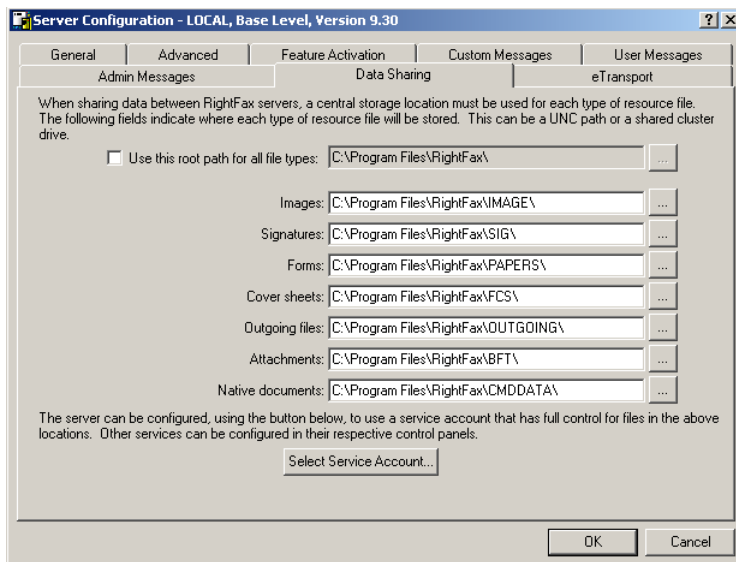
System Requirements

The requirements for RightFax Servers are described on [page 9, “Hardware and Software Requirements”](#). In addition to these requirements, you must also possess a minimum of two servers capable of network communication. Each of these must be licensed for the ‘Server Collective’ feature.

Providing Access to Shared Resource Folders

Each RightFax Server that is licensed for Server Collective (Data Sharing) will have a Data Sharing tab within the Server module configuration as shown below.

Figure 7.5 The Server module Data Sharing Tab.



The dialog boxes within the Data Sharing tab represent folders that must be shared among all the RightFax servers within a Data Sharing environment. Share permissions must be given to the account used to run both the Server module and DocTransport module. This account must have full control of these folders. Choosing this account can be done by clicking the **Select Service Account** button. A complete list and description of these folders is

provided below.

- Image (contains sent and received faxes stored as compressed graphic image files).
- SIG (contains graphic images of user signatures for placement on faxes).
- Papers (contains the names of overlay form files).
- FCS (contains fax cover sheets).
- Outgoing (contains outbound files from all submission methods that are held while being processed into fax images, such as temporary fax queue spool files).
- BFT (contains text files created by the OCR process).
- CmdData (contains transaction files for each fax sent via e-mail or via SecureDocs).

Each of these folders can be located in common disk storage, such as a storage area network (SAN), network share on file server, or network access to a local drive on one of the RightFax servers. The folders must be accessible to all the servers in the shared configuration.

On each RightFax server, create shared access to these files using the RightFax Server Configuration dialog box, Data Sharing tab. Access to these locations can be expressed differently for each server due to permissions and network layout. Each server can be configured to use unique paths and user accounts to the same storage location for each type of resource file. Services that directly access image and other files must be given service accounts with access to the specified paths.

For Example: Server A may access a local storage area network (SAN) using the path S:\RightFax\Image and use the local system account for RightFax services to access this path. Server B might access the same location remotely using the path \\ServerA\RightFax\Image which would require use of an account that had permissions to access that network path (such as, DomainA\RightFax).



Note On remote BoardServers and WorkServers, these shared resources must be configured in the Windows registry.

Configuring Remote Services

The following RightFax services can be installed on remote computers.

- DocTransport, which specifies the methods by which documents will be transmitted and converts and copies received documents to the Image directory.
- BoardServer, which communicates between the RightFax server and fax boards.
- WorkServer, which performs processor-intensive functions such as cover sheet generation, print-to-fax conversion, and optical character recognition.

To support remote fax board services, the DocTransport and BoardServer modules must be installed together on Remote BoardServer computers.

The DocTransport module must be defined on each RightFax server. That is, whether local or remote, DocTransport modules should be discrete and should not be shared. A remote DocTransport module can connect to one RightFax server. It cannot access multiple RightFax servers.

A remote BoardServer module can connect to one RightFax server. It cannot access multiple RightFax servers.

A remote WorkServer can connect to one RightFax server. It cannot access multiple RightFax servers. Refer to Figure 2 on [page 76](#) for a basic illustration of remote services.

Using Dialing Rules

A fax may be sent by any server using the shared database, not necessarily the one that initially received the job.

To specify that a fax be sent from a specific server, use dialing rules. More information on dialing rules can be found in the *RightFax Administrator's Guide*.

To specify that a document be sent by a particular DocTransport module, use dialing rules to transfer the job to the DocTransport module. Refer to Figure 3 on [page 76](#) for a basic illustration.

Performing Daily Maintenance

Maintenance is a collection of daily tasks that help maintain an efficient SQL database. Maintenance tasks may be run by any server on a first come first serve basis.

Aging and Purging

The aging process evaluates the age of each document on the RightFax server. When a document exceeds the age limit, it is marked for deletion. The marked documents will later be deleted by the purge process. Documents that are marked for deletion can be recovered until they are purged. The age limit for documents is defined for each RightFax user group (in Enterprise Fax Manager). Documents that are marked for deletion can also be queried for reporting purposes.

The purging process removes documents from the SQL database that are both marked for deletion and have reached the configured limit. The purging process deletes the corresponding image files that are stored in the Image directories on the RightFax servers in the shared configuration. One event triggers the aging and purging process.

Orphan Scanning

The orphan process scans the RightFax\Image directories on the RightFax servers for fax image files that are not referenced by any document or library document in the SQL database. The image files are called “orphans” because RightFax has no record of their existence and cannot access them.

To manually delete orphan image files from the RightFax server, use the Orphan.exe utility.

Recovery

The RightFax 9.3 the event queue is stored in the SQL database on the SQL server, and it is shared among RightFax servers. The queue is persistent, that is, it retains its objects and values if the RightFax Server module stops. If one of the RightFax Server modules in the shared configuration stops, then it is not necessary to rebuild the queue. The recovery process is performed daily on the RightFax servers as a fail safe.

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Configuring the Maintenance Processes

Each maintenance process is an event that is stored in the event queue on the SQL server. One RightFax server will perform maintenance when a maintenance event is queued, on a first-come, first-served basis. Aging is performed before purging.

The default time for maintenance to begin is 2 AM. The time is set in the RightFax Server Configuration dialog box, Advanced tab.

Viewing the Maintenance Logs

Logs of the maintenance process are stored in the RightFax\Database folder on the server that performed the process. These logs are:

- MaintAgingAndPurging.log
- MaintOrphanScan.log
- MaintDocRecovery.log

Chapter 8

Documentation and Support

RightFax Documentation

Documentation for the RightFax server, the RightFax client applications, and all of the RightFax components and modules is installed in PDF format on the RightFax server. For your convenience, Captaris also provides three of these guides in printed form: the *RightFax Installation Guide*, the *RightFax Administrator's Guide*, and the *RightFax Integration Module Guide* (provided only with a licensed copy of the RightFax Integration Module). The remaining guides are formatted to be easily viewed on-screen or printed.

All of the RightFax user guides (including PDF versions of the printed guides) are located in the RightFax\Docs folder on the RightFax server and on the product CD. In addition, most of these documents can be downloaded from the RightFax Web site at www.captaris.com/customer_support/tech_docs/5609.html.

The following table describes all of the user guides available for RightFax and lists the RightFax components that each guide supports.



Note To view these files, you must have Adobe Acrobat Reader installed. A copy of Adobe Acrobat Reader can be found on the RightFax server installation CD in the Docs folder.

Table 8a RightFax User Guides

Guide name	Description
Activating and Using PDF Module	A guide to installing, configuring, and using the RightFax PDF Module.
Activating and Using the OCR Converter Module	A guide to installing, configuring, and using the RightFax OCR Converter Module.
Activating and Using the OCR Router Module	A guide to installing, configuring, and using the RightFax OCR Router Module.
Administrator's Guide	A comprehensive guide to configuring and maintaining all RightFax servers.
API Reference Guide	A reference for C programmers and Visual Basic programmers for using the RightFax API. This guide is only available through the RightFax Developer's Network.

Table 8a RightFax User Guides (Continued)

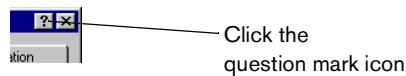
Guide name	Description
Client for Lotus Notes Quick Reference Card	A reference card for users who will send and manage faxes with the RightFax Gateway for Lotus Notes.
Client for Microsoft Outlook Quick Reference Card	A reference card for users who will send and manage faxes with the RightFax Gateway for Microsoft Exchange.
COM Reference Guide	A guide to using the RightFax COM module for creating custom RightFax applications with Visual Basic. This guide is provided in PDF format on the RightFax COM Module installation CD.
Connector for Oracle CRM Guide	A guide to installing, configuring, and using the RightFax Connector for Oracle CRM.
Connector for Oracle E-business Suite Guide	A guide to installing, configuring, and using the RightFax Connector for Oracle E-business Suite.
Connector for FileNet P8 Guide	A guide to installing, configuring, and using the RightFax Connector for Panagon Image Services. This guide is only available with the FileNet P8 integration software.
Connector for SAP R/3 Guide	A guide to installing, configuring, and using the RightFax Connector for SAP R/3.
Docs-on-Demand Guide	A guide to installing, configuring, and using RightFax Docs-on-Demand.
Document Management Connector Guide	A guide to integrating RightFax with iManage and Hummingbird content management applications.
Fax Board Guide	A guide to all the fax boards supported by RightFax, including required hardware and software configuration.
FaxUtil Quick Reference Card	A reference card for users who will send and manage faxes with RightFax FaxUtil.

Table 8a RightFax User Guides (Continued)

Guide name	Description
RightFax Lotus Notes Module Guide	A guide to installing, configuring, and using the RightFax Lotus Notes Module.
RightFax Microsoft Exchange Module Guide	A guide to installing, configuring, and using the RightFax Microsoft Exchange Module.
Installation Guide	A guide to installing the RightFax server, upgrading the server, and adding new components.
Installing and Using the InterAction Integration Software	A guide to configuring RightFax to work with the InterAction contact management system.
Integration Module Guide	A guide to installing, configuring, and using the RightFax Integration Module.
InternetLink Module Guide	A guide to installing, configuring, and using the RightFax InternetLink Module.
SecureDocs Module Guide	A guide to installing, configuring, and using the RightFax SecureDocs Module.
SNMP Alerting Module Guide	A guide to installing, configuring, and using the RightFax SNMP Alerting Module.
TeleConnect Guide	A guide to installing, configuring, and using RightFax TeleConnect.

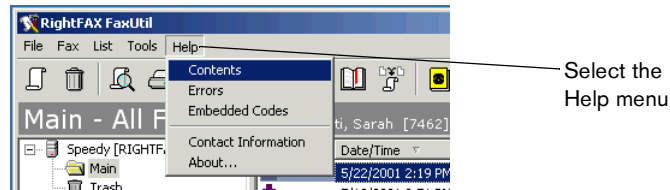
Getting Help Online

Most of the RightFax windows and dialog boxes include context-sensitive help. Typically, this help describes each field and option in a dialog box. This context-sensitive help can be launched from the question mark icon in the title bar of a dialog box.



- Click this icon, and then click any option on the dialog box to view its definition.
- Or, press F1 to view a definition.

Online help for tasks or conceptual topics also is available. View this help by selecting the **Help** menu. You can browse the help for a topic or use the index to look up key words and terms.

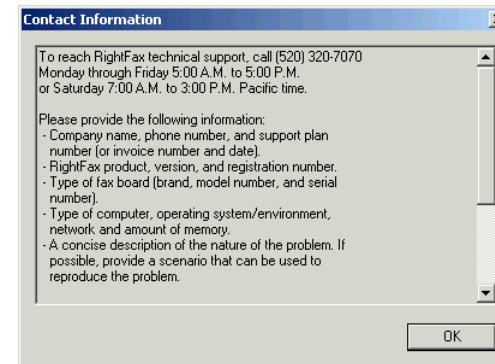


The RightFax Web site offers the latest product information. Updated documentation, a searchable customer support knowledgebase, software downloads, and the latest product offerings are all online at www.captaris.com/rightfax.

Editing Contact Information in FaxUtil

In the FaxUtil **Help** menu, users can select **Contact Information**, and a dialog box opens that lists RightFax technical support contact information.

Figure 8.1 The Contact Information Dialog Box



This contact information appears in English with RightFax contact information, but you can edit the text to provide customized information. To do so, edit the text file `Contact.txt` located in the `\RightFax\Bin` folder on the RightFax server. You can enter 24 lines of text and up to 59 characters per line.

Captaris Training Services

RightFax training gives you the skills to optimize your RightFax solution. Our comprehensive technical, administrative, and user training programs produce full utilization and understanding of RightFax products. Regular classes are held at the state-of-the-art RightFax Training Center in Tucson, Arizona, throughout the year, or you can choose the convenience of training at one of our regional locations. Training materials and computer-based training tools are also available. For more information on RightFax training, please

visit our Web site at www.captaris.com/training, or call us at (520) 320-7098 and let us help you develop a customized training plan for your organization.

RightFax Customer Support:

Captaris	Voice: (520) 320-7070
Suite 210	Fax: (520) 321-7461
6303 E. Tanque Verde	Web: www.captaris.com/rightfax
Tucson, Arizona 85715 USA	E-mail: tech@captaris.com

5:00 A.M. to 5:00 P.M. Pacific time, Monday through Friday

7:00 A.M. to 3:00 P.M. Pacific time, Saturday

Support Sales and Administration: (520) 320-7000

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Captaris Implementation Services

Captaris Implementation Services offers a team of highly skilled engineers who are experts in the deployment, implementation, and integration of RightFax solutions. Implementation services include installation and configuration, upgrades, configuration review, and advanced integration services. Whether it's through remote dial-in, an on-site implementation, or a combination of both, the Implementation Services team can quickly integrate RightFax solutions with your existing applications.

Customer Support

Your *Customer Support Guide* includes detailed information about the support options available to RightFax customers. Please fill out the *RightFax Software Warranty & Registration Card* and return it immediately. If you have questions of a technical nature, contact your organization's RightFax administrator or network administrator before calling the RightFax customer support department. On the RightFax Web site, a database of customer support knowledge contains a wealth of information on installing, configuring, and maintaining RightFax software.