

# **RightFAX filter for ORACLE**

## White paper

**Enabling Oracle  
applications for direct  
faxing and transmitting  
of high volume,  
business critical  
documents**



**CommercePath**

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# White paper

## Contents

<b>Executive Summary</b>	<b>3</b>
Volume Faxing Situation Analysis	3
Problem	3
Solution	3
<b>Document Delivery Environment</b>	<b>3</b>
Volume Faxing Market Status	3
Existing Fax Challenges	3
<b>The RightFAX Solution</b>	<b>4</b>
How it works:	4
Document Preparation	4
Document Transmission	4
Document Tracking	4
Cost Benefits	5
<b>The RightFAX-Oracle Solution</b>	<b>5</b>
The RightFAX - Oracle Relationship	5
Additional Benefits and Features	5
<b>Technical Overview</b>	<b>6</b>
RightFAX Architecture	6
Oracle/ RightFAX Integration	6
Requirements	6
<b>Summary</b>	<b>7</b>
<b>Contact Information</b>	<b>7</b>

## Executive Summary

### Situation Analysis

Companies and organizations that are striving to compress their business cycle are relying more on fax and email to transfer business-critical documents. The information to create these business critical documents (POs, invoices, order acknowledgments, etc.) is often generated in MRP, Accounting, ERP, Finance and other Oracle database applications.

### Problem

How do you reduce costs and increase efficiency for delivering business-critical documents? The ideal solution would include the following:

- Reduce the amount of 'touch' costs and human intervention to transmit documents.
- Transmit documents (POs, invoices, order acknowledgments, etc.) to parties in the shortest time possible.
- Track document transmissions to ensure quality and accountability.
- Integrate tightly with existing Oracle applications.

### Solution

The *RightFAX filter for ORACLE*, powered by CommercePath technology, provides a seamless solution for transmitting volume documents from Oracle applications.

With the same ease of sending documents to a printer, Oracle applications can format information into a fax, EDI, or email document and transmit it to anywhere in the world. This high-volume document delivery and receipt solution allows companies to compress the business cycle and greatly reduce their document processing costs.

## Document Delivery Environment

### Volume Faxing Market Status

Organizations typically deliver and receive business-critical documents by:

- Faxing
- EDI
- E-mail
- Manual processing and mailing

Of these methods, faxing remains the dominant means of business-to-business communication. Despite the attention given to EDI and email, fax remains the overwhelming standard for communication between businesses. According to International Data Corporation (IDC), more than 500 billion fax pages were sent in 1998. Furthermore, IDC expects the volume to grow 22 percent a year between 1998 and 2001.

Faxing remains the uncontested leader because of the ubiquitous nature of fax and the tangible, unalterable document faxing produces.

While EDI and E-mail are gaining popularity they lack the pervasive nature of faxing and the ubiquity of fax machines. They also usually require a degree of document standardization between parties which is always expensive to enforce.

Manual processing and delivery is the most expensive document delivery option. To create, print, stuff and mail a single document, an organization will spend more than a dollar for every document delivered. In addition, the transmission time is several days or even longer for international deliveries.

### Current Fax Challenges

For organizations that process a high volume of documents by fax, costs can quickly add up for processing and administering the document delivery process.

In a standard organization there are three steps for processing fax documents:

1. Document Preparation
  - Gathering information (numbers, contacts)
  - Formatting (letterhead, signatures, cover letters and graphics)
2. Document Transmission
  - Converting to faxable format (scanning)
  - Connecting to other fax machine
  - Sending transmission
3. Document Verification
  - Receiving confirmation of fax
  - Notifying sending parties of transmission

At each step there are inefficiencies and possible errors that can add significant costs to high volume faxing.

Document Preparation Inefficiencies include:

- Printing out documents first on company letterhead or forms.
- Creating custom cover sheets with contact and fax number information.
- Manually delivering to fax machine or fax center.

Document Transmission Inefficiencies include:

- Long lines at the fax machine
- Waiting for the receiving fax machine to be available
- Resends that did not go through or were inaccurately dialed

Document Tracking Inefficiencies include:

- Tracking and recording when documents were sent
- Handling customer or vendor calls to determine the status of the fax

In addition to these challenges, there are equipment requirements to put faxing and printing capabilities within reach of employees. This includes the cost of multiple machines, the placement of fax lines, and the additional expense of extra analog lines. Companies with high volume faxing demands will often have to add support personnel to aid in the document delivery process.

## The RightFAX Solution

The RightFAX solution is a high-speed, electronic document delivery system for the enterprise. Organizations such as EDS, University of Pennsylvania and Rockford have all use the RightFAX solution with Oracle applications to significantly reduce document delivery costs.

The RightFAX solution takes information directly from existing Oracle applications; formats that information into a fax, EDI or e-mail document and then transmits it to any fax machine or terminal in the world almost instantaneously.

At each step in the electronic document delivery process the RightFAX solution eliminates inefficiencies.

### How RightFAX Works

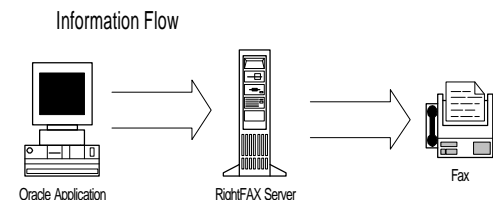
#### Step 1: Document Preparation

Existing Oracle applications generate and organize information into:

- Purchase orders
- Order acknowledgements
- Invoices
- Schedule notices
- Information updates

This raw document information from the host Oracle application is directed to the RightFAX server through a TCP/IP connection configured as a logical printer.

In the process of document delivery the RightFAX server sits downstream of host applications and servers. The downstream configuration means that the RightFAX server will have no impact on host applications or performance.



The *RightFAX filter for ORACLE* is an application that runs on the RightFAX sever. It intercepts the raw information sent from the host application to a logical printer and redirects it to the fax server.

The Oracle filter parses through the information sent by the Oracle application and then assembles the finished document with overlays, signatures and other graphics. Fax numbers, contact name and routing information is extracted from the raw data sent from the Oracle application. This information is used to dispatch the document from the RightFAX server for transmission.

#### Step 2: Document Transmission

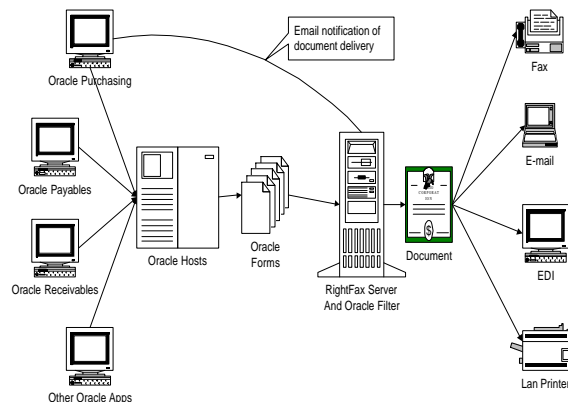
The RightFAX server is a high volume fax solution with a single server capable of processing over 6,000 faxes per hour. It is designed for demanding organizations that transmit high volumes of fax and electronic documents. To meet the high volume demands of any enterprise the RightFAX server includes the following features:

- Distributed computing environment - Multiple fax servers can be linked together and individual fax server tasks can be portioned out to other RightFAX servers.
- Dynamic Load Balancing - Large fax transmissions are automatically routed to available channels and resources allowing an enterprise to make full use of telephone networks and other RightFAX servers.
- Non-proprietary Database - The RightFAX SQL Server database handles routing, tracking, batching and transmission tasks while remaining open for customer specific modifications. This allows organizations to add lookup tables, customize tracking or add other document information.
- Intelligent Routing - The least cost routing feature that allows companies to take advantage of non-peak rates or special calling plans.

#### Step 3: Document Tracking

The RightFAX server has the following features to help organizations manage and verify faxing or electronic document transmissions.

- Logical Windows interface for generating tracking and usage reports
- Web enabled interface for maintaining and reporting on document transmissions.
- Notification and status checking for document generating parties. Methods include Email (Exchange, Notes, SMTP), FTP, LPR, WinPopup, TCP/IP sockets or HLLAPI.



## Cost Benefits

For organizations that are manually transmitting faxes or manually sending them through the mail, the RightFAX solution can provide substantial cost savings.

Figure 1 shows costs savings per month for a typical organization generating a high volume of documents. Since manual faxing and manual mailing both require the same document preparation steps, the cost differences between the two is the cost of a first class stamp minus the transmission costs.

# Documents/ Day	100	200	300	400	1000
Cost to Mail	\$1.03	\$1.03	\$1.03	\$1.03	\$1.03
<b>Daily Cost</b>	<b>\$103.00</b>	<b>\$206.00</b>	<b>\$309.00</b>	<b>\$412.00</b>	<b>\$1,030.00</b>
Cost to Manual Fax	\$0.78	\$0.78	\$0.78	\$0.78	\$0.78
<b>Daily Cost</b>	<b>\$78.00</b>	<b>\$156.00</b>	<b>\$234.00</b>	<b>\$312.00</b>	<b>\$780.00</b>
RightFAX cost	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
<b>Daily Cost</b>	<b>\$10.00</b>	<b>\$20.00</b>	<b>\$30.00</b>	<b>\$40.00</b>	<b>\$100.00</b>
<b>Monthly Savings</b>					
Over Mail	\$1,860.00	\$3,720.00	\$5,580.00	\$7,440.00	\$18,600.00
Over Manul Fax	\$1,360.00	\$2,720.00	\$4,080.00	\$5,440.00	\$13,600.00

Figure 1. Typical cost savings achieved with a RightFAX server and RightFAX filter for Oracle

With the RightFax solution Oracle documents can be automatically faxed in high volume from any Oracle application.

Costs are significantly reduced by:

- Instantaneous creation and faxing of volume documents
- Elimination of formatting labor and time
- Elimination of transmission labor and errors.
- Shortening of business cycle by immediate delivery of documents.
- Reduced need for faxing hardware

Documents can be processed and routed to any fax machine, EDI terminal or E-mail account in the world with the same ease and effort as printing from an Oracle application.

## The RightFAX – ORACLE Solution

Oracle applications are an integral part of many companies and reach almost every facet of industry including:

- Financial Management
- Supply Chain Management
- Manufacturing
- Project Systems
- Human Resources
- Market Management
- Vertical Markets

For organizations that need to transmit a high volume of Oracle generated documents, *RightFAX filter for ORACLE* provides a powerful solution for immediate delivery of business-critical documents. RightFAX and Oracle have developed a solution that gives organizations:

- Cost cutting methods for transmitting documents from Oracle applications
- Tight integration with existing Oracle applications that enables a touch-free, unattended delivery of Oracle documents with the same ease as printing
- A flexible Fax Control Language (FCL) for customizing documents and delivery options

- A fully scalable fax server that will grow with expanding enterprises faxing needs
- An open, non-proprietary database (SQL Server) for document tracking and fax server management

All of this is available with an easy installation on the industry standard Microsoft NT based operating system. Limited maintenance is included and a world-class support team is standing by 24x7 with remote dail-in capability.

## The RightFAX and Oracle Relationship

Since 1994 RightFAX has been a Cooperative Applications Initiative (CAI) partner with Oracle. This strategic partnership ensures that RightFAX's solution has been thoroughly tested and will integrate seamlessly with all Oracle products.

The RightFAX solution for Oracle is unique in that it integrates fully with Oracle yet sits downstream of any Oracle applications in the document delivery process. Because of this downstream configuration the RightFAX server and Oracle filter are not affected by revisions and software updates from Oracle. This configuration also isolates Oracle applications from any processing demands of the RightFAX server.

## Additional RightFAX Features and Benefits

The RightFAX server can be integrated with many other enterprise applications. For organizations that may be running other applications in conjunction with Oracle the RightFAX Server provides a single point for fax and electronic document transmissions. The RightFAX scalable architecture makes it an economical and logical choice for a single fax solution for the complete enterprise. RightFAX provides the following features and benefits to your document delivery system.

- Distributed computing environment for easy expansion of capabilities
- High performance delivery capability with over 6,000 faxes / hour for each server.
- Built in security
- Stable application that gives reliable performance in the most demanding environments
- Extensive tracking and monitoring capabilities with Windows or Web based interface for monitoring performance and status remotely
- Intelligent, least cost routing allows faxes to be sent at off peak hours or in batches
- Dynamic load balancing automatically routes documents to open resources and servers for quick delivery
- Inbound routing of faxes or emails to host applications
- EDI integration
- Easy administration and maintenance

The capabilities of RightFAX can be extended further by adding one or more of the following modules:

**Messaging Connector** - Enables organizations to transform faxes to email messages and send, receive and manage them directly from Microsoft Exchange, Lotus Notes or SMTP-compatible mail packages.

**EDI Interpoint** - An EDI connectivity solution that extends the reach of the company's EDI systems to include non-EDI-capable trading partners.

**InternetLink** - Allows customers to use the RightFAX server to deliver business-critical documents over the Internet.

**NetLink** - Provides easy-to-use outbound fax delivery and comprehensive fax management capabilities directly from Windows applications at the desktop through the RightFAX server.

**NetLink Pro** - Provides production faxing from the desktop or local area network (LAN).

## Technical Overview

### RightFAX Architecture

The RightFAX server is designed to handle the most demanding document transmission needs of any organization.

The server software can be purchased separately (without hardware) or can be pre-installed onto an industry standard, single or multiple processor, Intel Pentium PC.

Telephone network access can be through analog, DID or digital T1 connections.

Server software runs on the Microsoft NT operating system and the RightFAX application carries the Microsoft BackOffice certification.

Underlying the RightFAX server is Microsoft SQL Server, an industry standard SQL database. The non-proprietary database access allows the server to reliably handle the most demanding document transmission loads. In addition, companies can modify or extend the database to meet customer specific needs.

Built on a distributed computing model, the RightFAX server has the ability to distribute high-volume processing activities across multiple servers. Document preparation, transmission and notification are processes that can each be assigned to a different server for execution. Faxing and document transmission capacity can easily be expanded with the addition of another RightFAX server.

The RightFAX server incorporates a Fax Control Language (FCL) for interpreting fax information from host applications. FCL has over 200 embedded procedures for assembling forms, looking up information, routing documents and notifying document generators.

In addition, the RightFAX Server is enabled with:

- **Dialing Logic** - A feature that eliminates the need for special formatting of phone numbers from the host application. Dialing logic will take care of special formatting required for local, domestic, and international calls.
- **Intelligent Routing** - A rules based tool for determining the least cost for sending fax or electronic information. Allows companies to take advantage of off-peak pricing.

The connection between the RightFAX server and an existing Oracle applications is done through standard TCP/IP protocol. The RightFAX server appears like a printer to the Oracle application. The connection may vary depending upon the host computer. Other protocols that are supported include 5250, 3270, TCP/IP sockets, FTP and LPR.

Delivery notifications can be tailored to a specific organizations needs. Some of the notification options available are: Email (Exchange, Notes, SMTP), TCP/IP sockets, FTP, LPR, Winpopup, and HLLAPI.

In addition to handling the out-bound document transmissions of the enterprise, the RightFAX server can also handle and route inbound fax transmissions. Inbound routing allows an organization to determine how incoming faxes will be routed. Routing options available are Direct Inward Dialing (DID), Dual-Tone Multi-Frequency (DTMF), Line or Channel, Caller Subscriber ID (CSID) or (remote id), Dialed-Number Identification Service (DNIS), manual, default area code and subaddress.

### Oracle - RightFAX Integration

The steps to integrating an Oracle application with a RightFAX server are as follows:

#### Step 1 - Connection

A TCP/IP logical printer is setup on the Oracle application. When a document needs to be faxed or transmitted it is sent to the logical printer which routes it to the RightFAX server.

#### Step 2 - Filter Creation

The *RightFAX filter for ORACLE* reads the raw data from the Oracle application and then assembles the information, forms, overlays, signatures and graphics into a finished document.

The filter is custom created for each organization by the RightFAX Enhancement Services Group (ESG). Working with a sample of the Oracle application output data, ESG uses FCL to extract the fax number or other routing information from the data, and overlay the data with scanned forms, signatures or graphics.

Once installed, the filter for Oracle will produce standardized documents for each high-volume document sent. It is modifiable and the filter and any lookup tables associated with the filter can be maintained or altered by the customer.

## Requirements

### Oracle Version

Since *RightFAX filter for ORACLE* works only with data output from an Oracle application there is no correlation or impact from changes in Oracle versions. This downstream architecture also allows the RightFAX server to work with virtually any host application in the enterprise.

### Network

For Oracle applications a TCP/IP print queue is the only setup required.

## Summary

For organizations that generate high volume, business-critical documents with Oracle applications, *RightFAX filter for ORACLE* is a high performance document delivery solution that can greatly reduce processing and transmission costs. It is simple to implement, and works with any Oracle application that outputs to a printer. RightFAX and Oracle have partnered to produce a solution that is scalable, feature rich, and robust enough to handle the most demanding volume fax requirements.

The *RightFAX filter for ORACLE* allows for a seamless integration with existing applications and delivers a true touch-free, unattended document delivery solution.

## Contact Information

For more information please contact .....

Case studies, FAQ and implementation guides for integrating Oracle applications with the RightFAX Server are available at .....