Rules-based Routing and Processing of Received Faxes with the iMPS DMS

Delivering received faxes automatically is an essential feature of an enterprise Fax Server solution. The iMPS Document Management System (iMPS DMS) provides an extensive set of features for processing and delivering received faxes, often initiating a fax workflow. Delivery instructions could be simple, such as route all faxes sent to a given fax number to a particular user. Or delivery instructions could be advanced, such as extract information from the received fax image and use this information to perform a database lookup for delivery instructions.

- **Assess the data known about the fax upon arrival**
- **Extract additional data from the fax image**
- **Query a network resource for additional data and/or delivery instructions**
- **Modify the format of the fax image**
- **Complete delivery to one or more destinations**

ADVANCED FAX ROUTING

Routing received faxes is a multi-step process. The first step is to gather the data known immediately about the fax when it arrives. This data includes information such as the date and time the fax arrived, the number it was sent to, and possibly the Caller-ID and TSID of the fax sender. These details are often enough to complete basic fax routing requirements.

More advanced fax routing requirements might require that information be extracted from the fax image itself. Faxes are sent and received as TIFF files, a non-searchable image format. An OCR process can be performed on the fax image to extract data. OCR works best when applied to structured data such as forms, where the iMPS solution has some basis for where on the fax to find the necessary data. Another means to extract data from the fax image is to perform barcode recognition.

Advanced Fax Routing can also query a network resource, perhaps to determine routing instructions, or to gather additional data that corresponds to the fax – so that this data can be delivered along with the fax.

PROCESSING RECEIVED FAXES

Gathering data from a received fax is a critical step – it enables advanced FAX routing to process and deliver faxes automatically, and it enables additional data to be attached to the fax delivery. Data known about the fax when it arrives includes:

- **The FAX Port** - the fax line or phone line on which the fax arrives
- **The Dialed Digits** - the number the fax is sent to
- **TSID** (Transmitting Subscriber Identifier) - the string that identifies the fax sender, often a company name or fax number
- **Caller ID** (ANI – Automated Number Identification) - the fax number of the sending fax device
- **Date & Time** - the date and time the fax arrives

Additional data can be gathered by an OCR process, whereby the fax image is converted to text by OCR, and the fax is made searchable; barcode recognition, whereby a barcode on the fax is scanned and interpreted; and database lookup, whereby a network resource is queried for additional data and/or delivery instructions. OCR is used to search for particular characters or locations on a fax image.
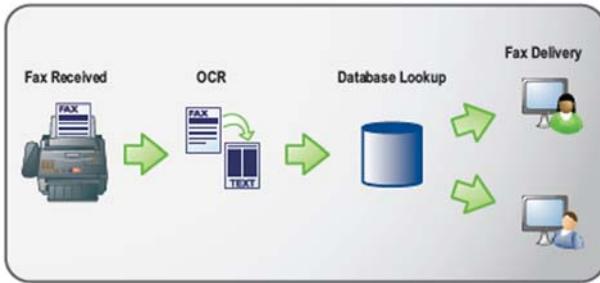
DELIVERY DESTINATIONS

- **Email** - The fax file can be delivered as an attachment to an email message or as a notification that contains a UNC link to the fax file

- **iMPS DMS** - Faxes are delivered to a folder or subfolder that triggers an iMPS DMS workflow process

- **Web Page -** Faxes are made available through a web page

- **A Printer**

- **UNC (Universal Naming Convention)** - Delivers faxes to a network directory

- **FTP (File Transfer Protocol)** - Delivers faxes to an FTP location

- **SFTP (Secure FTP)** - Delivers faxes to a Secure FTP location

- **Quarantine** - Delivers faxes to a Quarantine folder

- **Image Indexing** - Delivers the received fax to the iMPS DMS workflow solution for data capture and image processing

Formatting the Fax Delivery

The fax image can be converted from its original TIFF format to formats such as:

- **Searchable PDF**
- **PDF**
- **Searchable TIFF**
- **Text**

The delivery can also include additional data extracted from the fax image or retrieved via lookup to a network resource. This data can be delivered in CSV, XML, or similar format.

Advanced Fax Routing Workflows

Advanced Fax Routing extends fax routing capabilities to enable fax processing to be included in business workflows.

Examples include:

• An insurance claims form received via fax includes a claim number printed in one of the boxes on the form. An OCR of the fax provides the claim number, and a database lookup identifies the agent working on that claim.

• A purchase order received via fax includes a barcode on the cover page, where the barcode is unique to a specific customer. A database lookup identifies the account manager servicing that customer.

• An invoice received via fax might be delivered to a specific DID fax phone number assigned to an accounting contact.

• Multiple reports are received in a single fax. After reading a barcode on each report, the multi-page fax is split into multiple faxes for individual processing. Naming of the fax image can also be controlled, perhaps to reference data extracted by OCR and the date & time received. A record of the fax and

corresponding data can be written to an ODBC database.

The iMPS DMS can handle multiple workflows for processing received faxes. The workflow integration is accomplished by defining a set of criteria that trigger actions based on certain conditions.

Examples of **basic workflows** include:

- Deleting or forwarding faxes to specified subfolders when they are detected as spam based on the TSID.
- Routing faxes to users based on text extracted from the fax cover page.
- Automatically redirecting faxes when users are out of the office.

A sample **intermediate-level workflow** is to:

- First, convert a received fax to a text data file.
- Second, deliver the data file to an application for automatic processing.

A sample **advanced workflow** is to:

- First, separate a multi-page received fax into multiple documents.
- Second, search a network resource for the owner of each document based on extracted transaction Ids.
- Third, deliver each document to the correct owner with an attached .xml file that enables the document to be automatically indexed according to data extracted from the fax image included in the .xml file.

ABOUT iMPS DMS

iMPS DMS is a complete document management and workflow application and is a simple upgrade to our iMPS2 Lite, iMPS2 Enterprise and iMPS FoIP fax server solutions.

iMPS DMS can help you take complete control of your faxes and other electronic company documents to improve performance, increase efficiency and reduce costs across your business.

For more information or to arrange an online demonstration, please contact us today.