

WHITE PAPER

# **Distributed Document Imaging: Maximizing Your Investment in Microsoft® Technology**

**Integration with Exchange**

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## Introduction

Many of the distributed imaging solutions available today lack even the most basic Exchange integration and rely instead upon SMTP, requiring enablement of the Exchange server's SMTP relay.

Some support for LDAP for sender authentication and global address list access, but they lack other key features associated with Exchange e-mail.

This eCopy technology brief is one in a series of four briefs that examine the requirements for successfully integrating a distributed document imaging application into your existing Microsoft-focused IT environment. Other technology briefs in this series include:

- SharePoint
- Active Directory
- SQL Server and Access

The other three technology briefs in this series can be downloaded from our Web site.

### Distributed Document Imaging in Microsoft IT Infrastructures

Distributed document imaging solutions enable knowledge workers to convert paper documents into electronic files.

As a result, these solutions offer significant benefits, including:

- Making paper-based information available throughout the organization
- Speeding up the processing of paper documents while simultaneously reducing the associated costs
- Enabling administrators to apply policies for compliance with records management and security regulations
- Safeguarding paper documents through electronic backup to offsite facilities

To achieve these benefits, the imaging application must be easy to use and must integrate with the applications people already use on a daily basis for communication, collaboration, and document storage. Users must be able to walk up to any scanning device and store, distribute, and share paper documents the same way they handle electronic files at their desktop – by browsing the network, storing files to pre-configured locations, selecting recipients from address lists, and indexing documents for quick retrieval.

For organizations with Microsoft-focused IT infrastructures, this means integrating with the Microsoft technologies and applications already in place, such as Active Directory®, Exchange, SharePoint®, and SQL Server®-based business management applications.

Dynamic integration with back-end servers (domain controllers, Exchange servers, SharePoint servers, etc.) through programmed interfaces ensures that the user interface reflects the latest changes to the underlying applications, directories, and site structures. It also eliminates the need for preconfigured scanning cover sheets that some imaging solutions require. The application interfaces must be sophisticated enough to handle the infinite variety of complex network environments involving multiple domains, multiple forests, outsourced IT management, and internet-hosted services.

## Support for basic Exchange e-mail functionality

Organizations that use Microsoft Exchange for e-mail must ensure any document imaging solution can:

- Send mail from the authenticated user's personal Exchange account
- Automatically deliver a copy to the user's Sent Items folder
- Provide access to the global address list, as well as Exchange contacts and Exchange distribution lists
- Provide access to the user's personal contacts and personal distribution lists

The solution must support the same functionality provided by Outlook® on the desktop.

## Usability and personalization

To maximize user adoption and minimize training requirements, the e-mail interface at the scanning device must mirror the familiar Outlook desktop environment.

Key features to look for include:

- Access to the user's personal contacts and personal distribution lists (not possible with LDAP-only solutions)
- Support for multiple recipients, as well as CC and BCC
- Outlook-style "search-while-typing," which automatically searches the global address list and the user's personal contacts, and completes recipient names automatically
- Support for options like Importance, Sensitivity, Delivery Receipts, and Read Receipts.

## Records management compliance and audit trails

Records management regulations govern the creation, availability, retention, and ultimate destruction of documents relating to business activities and transactions.

These records are vital to the organization's existence, and loss could seriously compromise the organization's ability to function or could put it at risk of violating the law.

Through built-in functionality or 3rd-party add-ons, Exchange provides tracking and control mechanisms that enable organizations to comply with government regulations and internal protocols governing the retention of documents, including e-mails. Critical for companies concerned about regulatory compliance and audit trails, SMTP-based solutions circumvent many of these mechanisms.

Sending mail from the authenticated user's personal Exchange account ensures that the sender is identified through a secure authentication process. Additionally, a copy of all outgoing mail is saved on the Exchange server. Every e-mail sent from the device can therefore be traced back to the individual that sent it, providing a secure audit trail.

## Server load

One issue facing organizations that use document scanning is the additional load document images might place on the Exchange server.

To address this, advanced solutions employ mixed-raster image compression that intelligently partitions each page into regions of text and graphics, applying the most efficient compression algorithm to each region. Even color pages of mixed text and graphics can be reduced to as little as 200 KB per page, while retaining sharp text and good image quality. Additionally, Exchange-integrated solutions benefit from the Exchange server's ability to store a single instance of an attachment delivered to multiple recipients. SMTP-based solutions cannot take advantage of this capability, resulting in multiple instances of the attachment and greater disk space utilization.

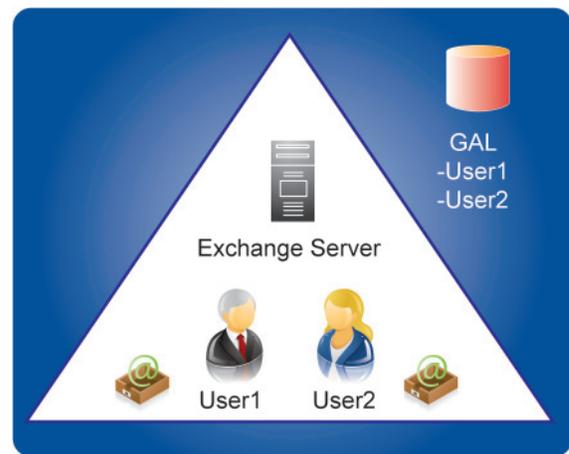
## Supporting complex environments

There is no such thing as a “standard” Exchange environment.

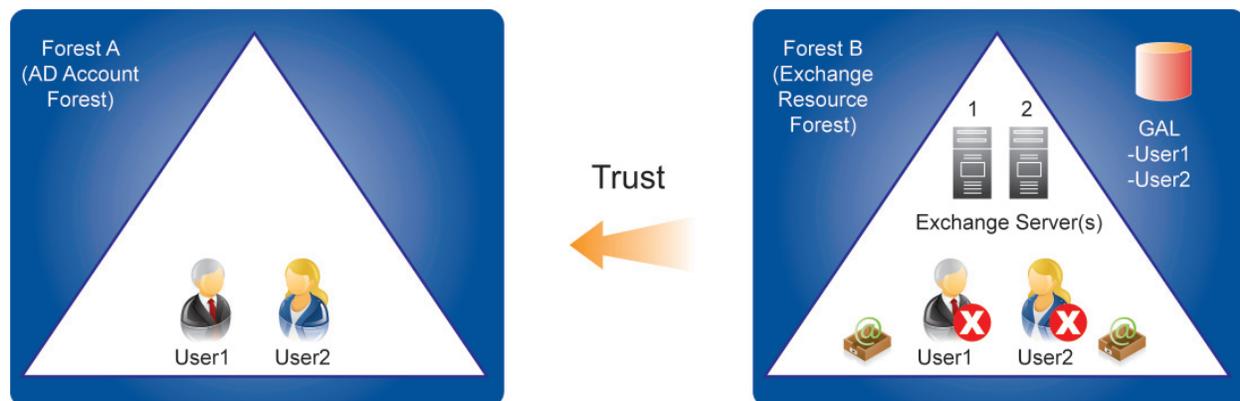
At one end of the scale is the typical “small business” environment, where a single server frequently hosts both Active Directory and Exchange.

At the other end of the scale are complex multi-forest environments, possibly resulting from company acquisitions, internal restructuring, or outsourced Exchange management, and frequently complicated further due to integration with legacy systems or specific security requirements.

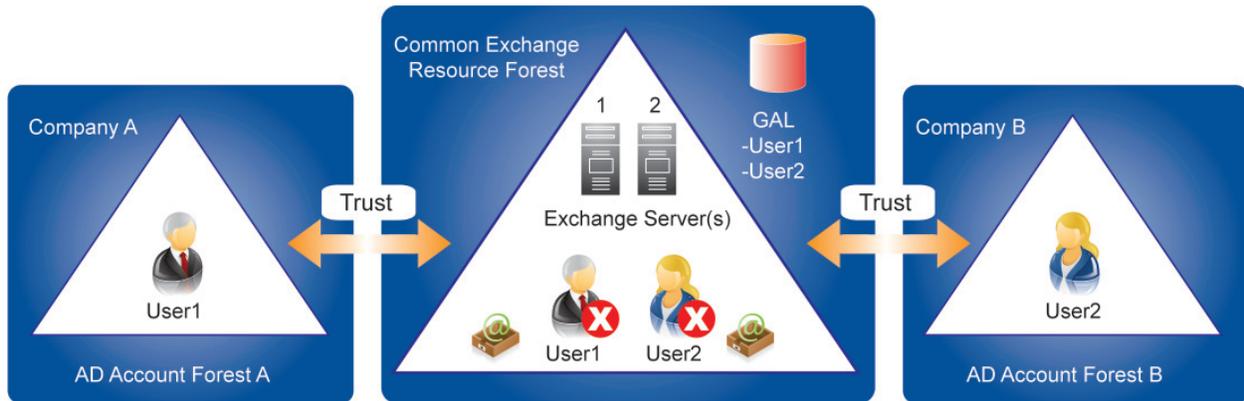
The variety and potential complexity of configurations makes it especially important that a distributed imaging



Scenario 1: Single forest containing user accounts and mailboxes



Scenario 2: Exchange Server management outsourced to a third-party vendor



Scenario 3: Merged companies maintain separate IT environments but create a single mail infrastructure

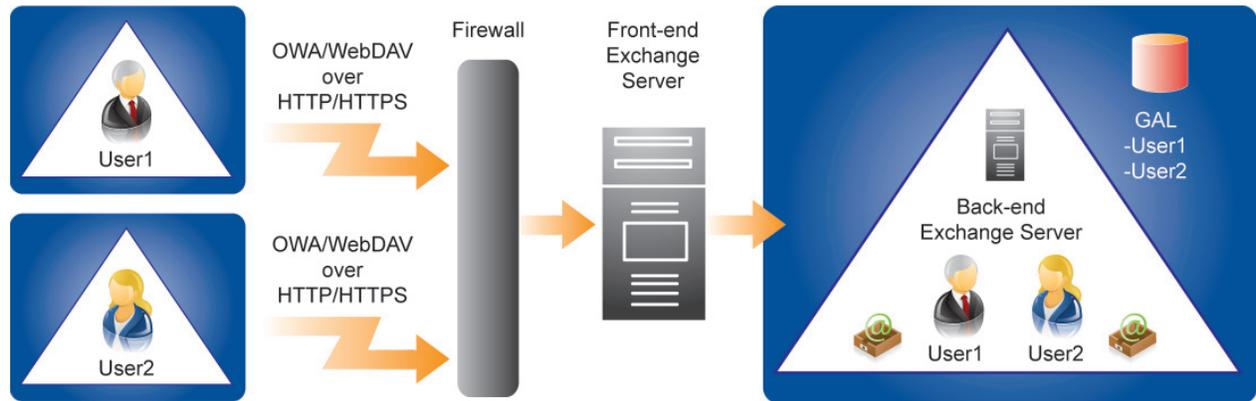
solution is sophisticated and flexible enough to support your unique Exchange environment. To work in these kinds of complex environments, the solution must support the internal protocols to enable Exchange logon, searching the global address list, searching users' personal contacts, and sending mail. To maximize flexibility, the solution should be able to connect to the Exchange Server using Microsoft Outlook libraries or using HTTP/HTTPS.

### Hosted (internet-based) Exchange servers

According to industry analysts, a growing number of small and mid-size businesses are eliminating their internal Exchange environments entirely and are turning instead to hosted Exchange services.

With hosted Exchange, mailboxes reside on the hosting company's servers, but users can still access their mailboxes using the Outlook desktop client or Outlook Web Access (OWA).

To work with hosted Exchange servers, the imaging solution must support OWA or WebDAV (preferably both). For security, support for forms-based authentication and SSL is also required. (See Scenario 4.)



Scenario 4: Hosted (Internet-based) Exchange Servers

## Summary

Exchange and Outlook are central to any Microsoft-focused IT organization.

A good distributed imaging solution must present a simple Outlook-like interface at the scanning device, while simultaneously providing sophisticated back-end functionality that enables it to integrate with any Exchange environment, regardless of its complexity.

Considerations when selecting a distributed imaging solution:

- Does the imaging solution send e-mail from the authenticated user's personal Exchange account and deliver a copy to the user's Sent Items folder?
- Does it provide access to the existing global address list as well as the user's personal contacts and personal distribution lists?
- Does it employ sophisticated compression technologies to minimize file size, especially when scanning color business documents?
- Does it support complex environments, such as internet-hosted Exchange servers or multiple forests using External Associated Accounts?



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