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## NEWS FLASH!!!

### Internet Exchange 4.0's IMAP4 Optimized Message Store offers support for POP3- and IMAP4-based email systems

As email becomes the tool of choice for global communications among organizations and individuals alike, various players in the IT industry scramble to develop email platforms that adhere to different standards, such as POP3 and IMAP4. The market is thus flooded with disparate and sometimes incompatible messaging systems, underscoring the need for a platform capable of supporting both POP3- and IMAP4-based email systems without sacrificing the reliability and efficiency of each system. The Internet Exchange IMAP4 Optimized Message Store is specifically designed to meet these goals, with support for both the IMAP4 and POP3 standards.

The Internet Exchange Message Store serves as a dedicated mail repository for Internet Exchange 4.0. It has the capability to store, retrieve, and manipulate messages. Moreover, it enables users to access their mailboxes using POP3 and/or IMAP4 capable clients like Microsoft Outlook, Netscape Communicator, and Eudora.

The Message Store consists of several databases, namely: the Users Database, Shared Mailboxes Database, Mailbox Database, Message Status Database, Message Envelope Database, and Message Body Database. The Users Database contains the name, password, and home directory of all valid users as

well as a list of the names of the shared mailboxes available to each user. The Shared Mailboxes Database contains the names and home directories of all shared mailboxes in the system while the Mailbox Database stores information regarding the status of the different mailboxes, including the shared mailboxes. IMAP4-related attributes and RFC822 header information are stored in the Message Status Database and Message Envelope Database, respectively. The Message Body Database stores the structure of all messages in a given mailbox. Access to the different databases is carried out via the Message Store API.

In addition, the module also contains the IMAP4 and POP3 servers, which each server capable of creating multiple threads for facilitating multiple access to the Message Store and for allowing simultaneous retrieval of multiple messages. The rules engine, which makes use of the Internet Exchange filtering utility Mail Sort, is also integrated into the Message Store to allow delivery of messages to specific mailboxes/folders and/or the forwarding of messages based on mail attributes specified by the users.

#### IMAP4 Server

IMAP4 (Internet Mail Access Protocol Version 4) offers users added flexibility in managing their mail-

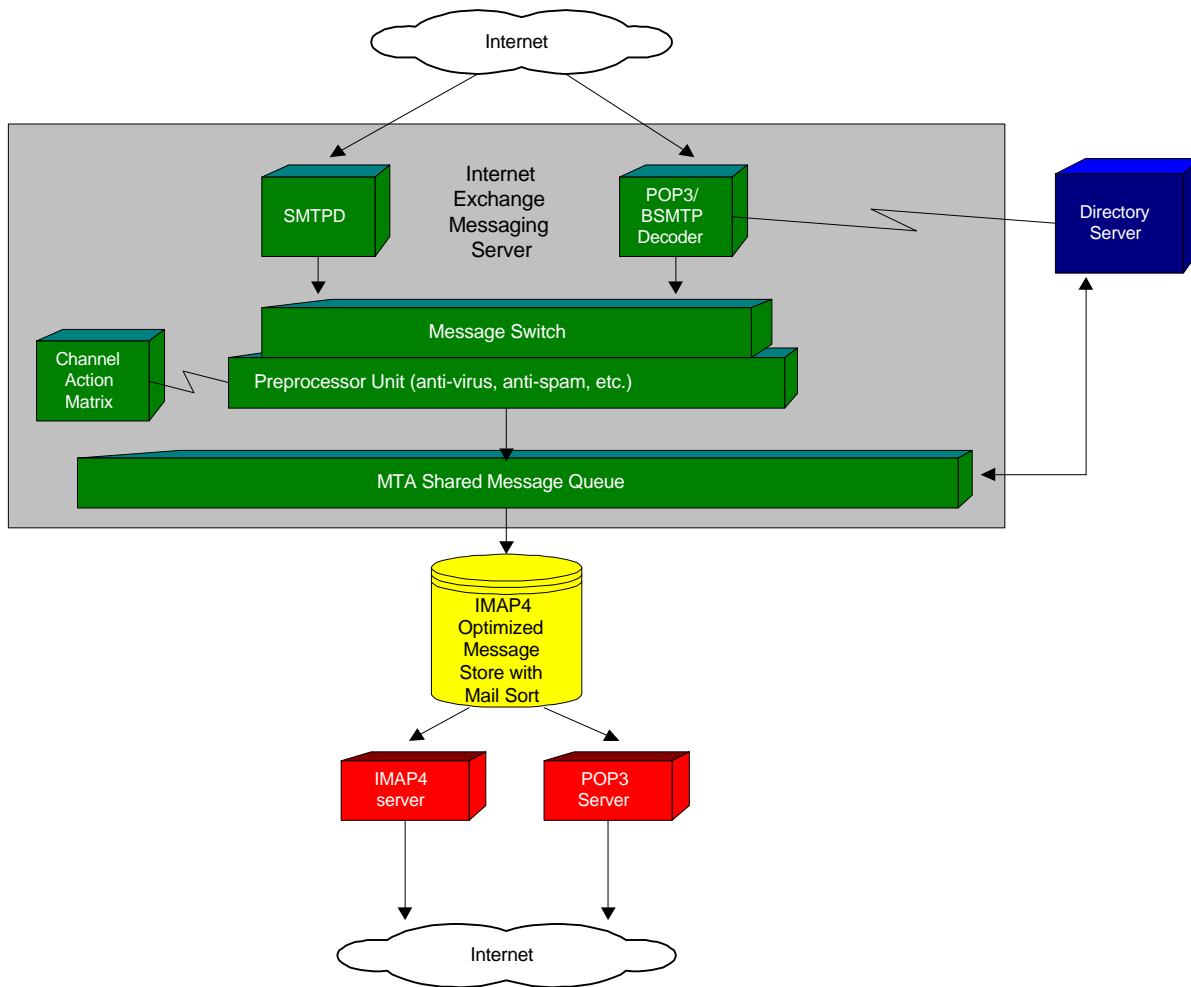


Figure 1. IMAP4 Optimized Message Store

boxes as compared to other technologies, such as POP3 (Post Office Protocol Version 3). To enable Internet Exchange users to reap the benefits of IMAP4, the Message Store features the IMAP4 Server, which allows users to gain access to their mailboxes via any IMAP4 capable clients such as Microsoft Outlook Express and Netscape Communicator. By using the IMAP4 Server, users can manipulate their mailboxes/folders without having to download them to a local hard disk, thereby saving precious bandwidth resources. It also allows Internet Exchange users to create multi-level mailboxes on the server that they can easily be renamed, moved, or deleted (with the proper

authorization from the system administrator), as well as shared mailboxes which can be viewed concurrently from multiple platforms in real time. Another benefit offered by the IMAP4 Server is the option to search for messages on the server based on such attributes as message size, headers, and message sender, and to separate attached files from the text and header portions of the message. The searches are performed by the back-end engine of the Internet Exchange Message Store.

#### POP3 Server

Despite the many advantages of IMAP4 over POP3, many email clients still use the latter. The

POP3 Server incorporated in the Message Store provides POP3 capable clients with a means for accessing their mailboxes. Via POP3, users can retrieve messages from the POP3 Server and store them in a local hard disk so they can be read in an offline or disconnected state. Smaller network nodes, such as workstations that do not have the resources required for maintaining an SMTP server and associated mail delivery system, can also retrieve mail via POP3. A node with the capability to support a message transfer system can provide maildrop service to these smaller nodes using POP3 services.

The POP3 Server bundled with

the Internet Exchange Message Store is a 32-bit application that supports multithreading for simultaneous processing of messages, thereby fast mail delivery.

### Mail Sort

The IMAP4 Optimized Message Store comes with Mail Sort, an engine for defining rules so that the local mail delivery agent can direct messages to preselected mailboxes/folders other than the user's INBOX. Mail Sort can also selectively forward messages to other addresses. With this feature, users are able to sort incoming mail based upon attributes, such as the message sender and subject, without having to go through

all the messages. For example, a user may want to store messages in folders according to sender, subject line, or message length. This can easily be configured using Mail Sort. The sorting actions are performed by the server in the background at message delivery time. These actions are rendered occur in the background and are transparent to the users.

### Conclusion

The IT sector is growing at a phenomenal rate and new standards for defining IT tools such as email are introduced at a very brisk pace. This makes it imperative for IT professionals, particularly network administrators, to come up

with strategies that will enable them to reap the benefits offered by Internet standards and use multiple mail clients without investing too much in new software or hardware. One such strategy is the use of a product that supports multiple standards, such as Internet Exchange's IMAP Optimized Message Store. This module supports both IMAP4 and POP3 capable email clients, including Netscape Communicator, Microsoft Outlook, and Eudora. With the Message Store, Internet Exchange users can avail of all the services offered by POP3 and IMAP4 by connecting to a single module, eliminating the need to invest in a new system.

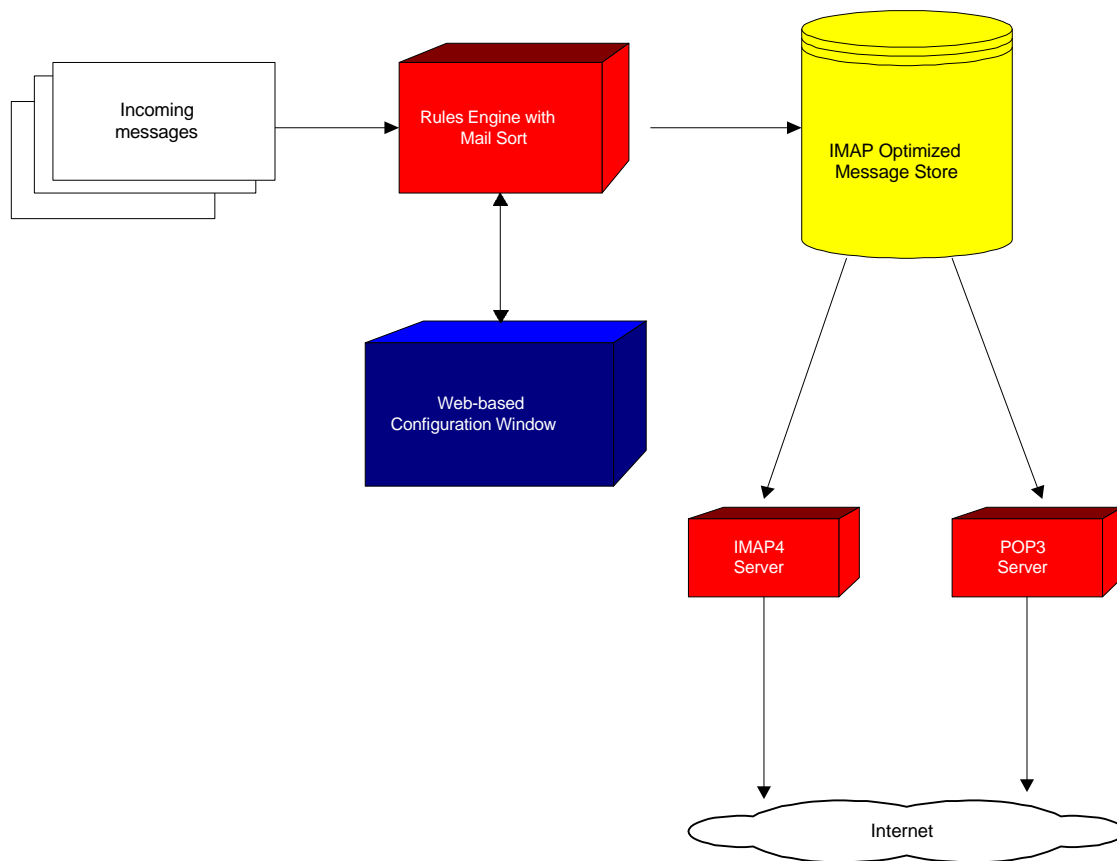


Figure 2. The Mail Sort utility

## CASE STUDY

# Reliable and efficient email services spell profits for MSAS Global Logistics (US) – How Internet Exchange provides a leading freight forwarder with a powerful business tool

MSAS Global Logistics (US) is one of the largest freight forwarding and logistics organization in the world, providing global seafreight, airfreight, customs brokerage, and related logistics services to its customers from its California headquarters. MSAS has 36 offices spread out across the United States and holds substantial stakes in other companies, including Skyking Freight Systems, Dutch Air, and Marken Worldwide Express. With such a large and geographically dispersed presence, MSAS requires a highly reliable IT infrastructure to communicate with its more than 10,000 employees and provide best-in-class services to its customers. Recognizing this early from the start, MSAS's IT Department have consistently addressed this challenge through a combination of careful planning and the proper choice of computing platforms. As MSAS System Administrator Dave Catalado put it, "MSAS consistently upgrades its software and hardware to stay within the guidelines described by the term 'up to date'. We have 36 offices around America connected via frame relay to the U.S. head office in California. These offices use TCP/IP to connect workstations to various servers in the main office for specific tasks."

Prior to setting up an email network, each MSAS office used a telex machine to communicate with the companies other offices and the main office in California. It was a very cumbersome setup, especially for a fast-growing company where the timely and accurate flow of information is critical to success. To streamline its operations, MSAS started using cc:Mail in 1992, with the company's Internet email requirements being handled by an Internet Service Provider (ISP). Later on, MSAS decided to set up its own SMTP gateway link upon the insistence of one of its customers who wanted a MSAS to install an SMTP connection with them over a leased line and because of several problems that MSAS encountered with its (ISP), such as the non-delivery of mail to and from the company's customers. The company used several criteria in choosing a gateway that will suit its needs, including the product's user friendliness, ease of installation, configurability, and ability to run unattended.

"We first asked Lotus for recommendations in setting this up, and they admitted that their SMTP gateway does not work very well," says Catalado.

"They advised us to contact IMA directly for our requirements. This, together with the company's (IMA) reputation, made us decide not to look any further."

According to Catalado, Internet Exchange was already functioning without any problems minutes after it was installed. "Its operation went smooth as silk, literally. It was install, (short) configuration, and instant operation. It just worked right off the bat without us having to exert a lot of effort. We were astounded at how easy it was."

Catalado is also very impressed with Internet Exchange's ability to resolve addresses through multiple sources. He also considers Internet Exchange a very user friendly, stable, and reliable product. "Internet Exchange does not require end-user training and it is very easy to install," says Catalado. He adds that he finds Internet Exchange numerous features, such as the monitor screen and log files, very useful.

Likewise, MSAS is very much impressed with the high level of professionalism shown by IMA's technical support staff. "IMA is a very responsive company who truly cares about its customers. It has a customer service group which is ready to jump (into action) at the snap of a finger. We experienced no troubles in obtaining (license) keys to test the product – we received the keys within 15 minutes and had the system up and running in no time at all," says Catalado. "Internet Exchange practically set itself up, and as a result, we had a satisfied customer who was very impressed that we beat their deadline for programming changes. Never once did we need to contact IMA's technical support," he adds.

## Internet Exchange News

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# Questions & Answers

**Q: Our company is currently using Lotus SMTP/MIME MTA to connect to the Internet. How do we replace it with Internet Exchange for Lotus Notes?**

A: To install Internet Exchange for Lotus Notes on your notes server, do the following steps:

1. On the Notes server, type `TELL SMTP MTA QUIT`, then wait for the SMTP MTA to terminate. Afterwards, delete the SMTP.BOX in the Notes server's \DATA directory.
2. From the Notes client, use the Mail router mailbox to recreate the SMTP.BOX.
3. In the NOTES.INI file, locate the entry `ServerTasks=` and remove SMTPMTA from the list so that it will not be loaded automatically when the Notes server is restarted.
4. You are now ready to install Internet Exchange for Lotus Notes.

**Q: We want to move our copy of Internet Exchange for cc:Mail to another machine and use a different FQDN (fully qualified domain name) from the one we are currently using. How do we do this?**


A: You are going to need a new license key to be able to move your copy of Internet Exchange to a new machine and use a new FQDN. To apply for your new Internet Exchange license key, do the following:

1. Go to <http://www.ima.com/support/fqdnchange> and fill out the form for requesting a new license key. Please do not forget to provide us with

your Serial Number, as well as the old FQDN and the new FQDN that you plan to use.

2. After receiving the form, we will immediately issue a temporary license key for the new FQDN.
3. To obtain a permanent key, please fill out return to IMA the License Acknowledgment form. After we received this form by fax, we will send you your permanent license key.

**Q: How do I automatically run Internet Exchange for cc:Mail's address conversion utility?**

A: Go to the Internet Exchange Control Panel and click on the  button. In the resulting screen, click on the *Dynamic Conversion* tab. Check the option *Automatically update alias database*. Internet Exchange's address conversion utility will then run automatically.


**Q: How do I perform a standard full system backup of our copy of Internet Exchange for cc:Mail?**

A: To perform standard backup, backup your IMA.INI file and all btrieve databases (\*.BTR). To perform full system backup, backup the whole IECCMAIL directory.


***"I've never met a human being who would want to read 17,000 pages of documentation, and if there was, I'd kill him to get him out of the gene pool." - Cadence President Joseph Costello.***

## This Month's Tip

### Creating Diagnostic Log Files

Oftentimes, setting Internet Exchange to diagnostic mode makes it easier for the system administrator to monitor the gateway for problems and implement the necessary troubleshooting tools. To set Internet Exchange to diagnostic mode, click on the *Configure* tab on the Control Panel or click on the  button. In the resulting screen, click on the *Gateway* tab. The GUI for configuring the logging level will then appear. Change the logging level to Diagnostic. To limit the size of the log files, enter the maximum number of bytes that you want in the *Logfile Size* field. Then click on the *OK* button. Internet Exchange will then create diagnostic log files.

### Deleting Log Files Automatically

To delete logfiles automatically and prevent them from taking up too much disk space, click on the  button and in the resulting screen, click on the *Options* tab. The GUI for configuring the gateway's miscellaneous features will then appear. Click on the *Advanced* button at the bottom of the screen, and in the resulting screen, look for the *Logfile* field. To send the logfiles to the Postmaster, check the option *Send old logfile to postmaster*. To save the logfiles on the hard disk of the machine running the gateway, check the option *Keep old logfile on disk*.