

Internet Exchange Messaging Server 5

June 12, 2001

INTRODUCTION

In keeping with its mission of providing a complete email solution to its client's messaging needs, International Messaging Associates (IMA) has developed Internet Exchange Messaging Server (IEMS) 5, a messaging system designed to run on Linux and Windows platforms.

IEMS is a complete, stand-alone, open architecture messaging system that complies with Internet standards. It provides security, scalability, mailing list management, web-based subscription and unsubscription, mail storage, filtering and vacation utility, disk quota management, excellent file attachment handling and support, optimized messaging handling and queue management, migration support, messaging connectivity for cc:Mail and Lotus Notes, web-based administration, centralized monitoring and control module, and web mail client.

This document discusses the product features of IEMS; and known problems and limitations (see page 5 to 7) that have been identified in this release. Hardware and software requirements for IEMS installation are listed on page 8 of this document.

PRODUCT FEATURES

Internet Standards Support

IEMS conforms to Internet standards to ensure system stability, interoperability and flexibility. These include:

- **SMTP (Simple Mail Transfer Protocol)**
IEMS communicates with mail hosts on the Internet using the SMTP. This protocol is used for the submission as well as the reception of messages. To communicate efficiently across the Internet, IEMS implements SMTP as two separate modules. A client program, SMTPC (Simple Mail Transfer Protocol Client), delivers messages to the Internet. The server program, SMTPD (Simple Mail Transfer Protocol Daemon), listens for incoming messages on the Internet.
- **BSMTP (Batch Simple Mail Transfer Protocol)**
IEMS includes a batch-mode implementation of SMTP supporting the BSMTP Media Type (RFC-2442). This is a MIME (Multipurpose Internet Mail Extensions)-content type that is used to tunnel ESMTP (Extended SMTP) transactions through any MIME-capable transport. This feature allows the tunneling of a group of messages to a predefined Internet address while preserving the original envelope or delivery information of each message.
- **IMAP4 (Internet Mail Access Protocol version 4)**
IMAP4 allows users to access their mailboxes via IMAP4-capable clients, such as Microsoft Outlook Express, Netscape Communicator, among others. By utilizing IMAP4, users can manipulate their mailboxes/folders on the server without having to download them to a local hard disk.

- **POP3 (Post Office Protocol version 3)**
IEMS provides POP3-capable clients with another means of accessing their mailbox. Using POP3, users can retrieve messages from the local Message Store Inbox and store them in a local hard disk so they can be read in an off-line or disconnected state. The POP3 server supports multithreading for fast message retrieval.
- **LDAP (Lightweight Directory Access Protocol)**
IEMS Directory Services that incorporates LDAP, an open directory access protocol. The IEMS Directory is designed to effectively manage information about users, groups, mailing lists, alias processing and mail routing. LDAP has a rich set of searching capabilities that makes directory look up fast and efficient.

Security

To ensure the security of the messaging system, IEMS has several layers of built-in security features, such as:

- **Anti-Virus Capability**
Performs simultaneous virus scanning on MIME and non-MIME message attachments. Once a virus is detected, the message can either be deleted, bounced back to the sender, or archived to a predefined location/directory for later manual processing.
- **Anti-Spam Capability**
Provides the administrator with options to control the reception of unsolicited and unwanted spam messages. Once identified, the offending spam mail can then be processed in a manner defined by the administrator.
- **Auto Text Insertion Engine**
The auto text insertion engine provides the capability to insert disclaimer messages into messages passing through the MTA. The administrator can add different disclaimer messages based on the message source channel. The engine, which supports non-MIME and MIME message structure types, allows the system administrator to use plain and/or HTML text file format in the insertion process.

Scalability

The IEMS architecture is designed to support a distributed messaging environment to ensure that each component will have sufficient computing resources to perform its tasks and to provide for future expansions. The various components can be run on different machines and operating systems concurrently.

Distribution List Management

The Distribution List Manager allows messages to be sent to all list's subscribers by simply submitting the said messages to a single address. This module also enables the system administrator or list owner to create electronic mailing lists that support the following features: mail blocking, adding and removing subscribers, and setting the preferred delivery options.

Distribution List Archives allows members and non-members of the mailing list to view the archived messages of a mailing list.

Distribution List Subscription and Unsubscription

IEMS also allows both members and non-members of a mailing list to subscribe to or unsubscribe from the mailing list available in the server.

Mail Storage

The Message Store acts as a dedicated mail repository for storing, retrieving and manipulating messages, while also enabling users to access their mailboxes via POP3- and/or IMAP4-capable clients. The same Message Store can also be accessed remotely using any web browser via the Web Mail Client.

Filtering and Vacation Utility

Mailsort allows system administrators and end users to define rules so that the LMDA can copy, forward or move messages to preselected mailboxes/folders other than the user's Inbox. It can also generate automatic replies to incoming messages based on a predefined criteria. The Mailsort filtering utility implements rules based on certain attributes (i.e., message sender, recipient or subject) to process incoming mail at message delivery time. It can also reject messages coming from the defined email addresses.

Disk Quota Management

The Quota Agent allows the system administrator to set and enforce disk quotas on all Message Store user accounts. This limits the amount of resources that are allocated to the individual users to prevent them from consuming all of the available disk space in the server. The Quota Agent generates reports in HTML and text file format that can be used by the system administrator in checking and verifying Message Store performance and space usage.

Excellent File Attachment Handling and Support

Transferring file attachments among disparate electronic messaging systems have long been a problem for many messaging systems. In IEMS, attachment filenames and attributes are transferred among disparate mail systems fully preserved, preventing the loss and corruption of data regardless of the source and destination systems.

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Optimized Message Handling and Queue Management

To speed up mail delivery and save on storage resources, IEMS uses a Shared Message Queue structure. By using this structure, duplication of messages is avoided and disk I/O processing time is minimized. IEMS also features an SMTPC Queue Management that provides a mechanism for efficient message priority handling, the efficient processing of server-side ETRN (Extended Turn) requests, and improved message queuing strategies.

Migration Support

For migrating sites, comprehensive migration tools are provided to help Lotus cc:Mail and Notes users move to an Internet standards-based environment smoothly and reliably. All address and mailbox information is transferred to the new system transparently, causing end users very minimal disruption. In addition, IEMS supports the most common client software available in the market, allowing end users to immediately make use of system after the messaging system (backend) migration is complete.

Centralized Monitoring and Control Module

The MC (Monitoring Control) Responder is used to automatically start or stop the IEMS components. The MC Responder serves as a centralized monitoring and control module that manages the different modules running across multiple machines and operating systems.

Web-Based Administration

The web-based interfaces allow users to manage the system via the Internet using any web browser.

Web Mail Client

The web-based mail client allows users to manage their mail, including the ability to compose, reply, and forward messages using any web browser.

**KNOWN
PROBLEMS**

The following problems have been identified in release 5.0. Please report any problems not identified below to support@ima.com.

Renaming local user mail attribute in LDAP causes the Message Store account to disappear

Renaming the mail attribute of a Message Store user when using the LDAP admin page hides the account in the Message Store page. To unhide, rename the mail attribute to its original name in Directory Server. Any changes to local accounts must be accomplished using the Message Store administration page.

Notes mailbox migration tools changes Notes client setup

Notes mailbox migration automatically updates the NOTES.INI file with the username of the migrated user causing the Notes client and IEMS 5 Notes connector not to function properly. To solve this problem, make a backup copy of the original NOTES.INI file before migration. Once the Notes mailbox migration is finished, copy back the original NOTES.INI file.

Retrieving messages using POP3 client returns “Unable to lock message database” error

Accessing messages on a busy server using the POP3 client may cause the connection to the IEMS 5 POP3 server to discontinue with an error message “Unable to lock message database”. This error is being returned in the mail client software and also logged in the IEMS 5 system.

Web Mail Client does not decode UUENCODE body part

The Web Mail Client is not currently capable of understanding UUENCODE body parts resulting in its inability to properly decode/display UUENCODE messages.

Web Mail Client does not decode RFC1522 encoded header fields

This feature is not working in the current WMC implementation. WMC will not be able to decode/display messages with RFC1522 encoded header fields properly.

**KNOWN
LIMITATIONS****cc:Mail migration tools do not migrate nested folders**

The cc:Mail mailbox migration tools will not migrate nested folders as the cc:Mail VIM API does not include support for this.

cc:Mail/Notes mailbox converter does not migrate empty folders

When no message are found in a folder, the migration tool skips the conversion process for the empty folder. This is due to a lack of support within the cc:Mail / Notes API's that the IEMS migration tools utilize to communicate with these environments.

Notes migration authentication fails if server.id is used to connect to the Domino server 4.x.

The Notes migration authentication to the Notes server will fail if the server.id is used to connect to the Domino 4.x server. The Notes VIM interface requires that a user ID is used to open the Notes address book.

Shared mailboxes not visible in WMC

When using the Web Mail Client (WMC), the shared mailbox available for the local user will not be visible in the list of folders in WMC. Shared folder access is only accessible using any IMAP compatible client, such as Outlook Express, Netscape, Eudora, etc.

Deleting 300+ Message Store users returns "Internal Server Error"

Deleting approximately 300 Message Store accounts or more at a time returns "Internal Server Error". The CGI library for deleting Message Store user limits the total characters to be posted per transaction. When the data posted exceeds this limit, the program will display "Internal Server Error". To solve this problem, limit the users to be deleted at a time to around 200 accounts or less.

Adding 200+ mailing list members returns “Internal Server Error”

Adding 200+ mailing list members at a time returns “Internal Server Error”. The CGI library for adding mailing list members at a time limits the total characters to be posted per transaction. When the data posted exceeds this limit, the program will display “Internal Server Error”. To solve this problem, limit the users to be added at a time to approximately 100 email addresses or less.

Defining 50+ lines of data for the LDAP address field returns “Internal Server Error”

The system returns an “Internal Server Error” message when more than 50 lines of data is entered in the address field/attribute of user in LDAP.

IEMS 5 modules lose connection to LDAP server under Windows 98

The Windows 98 TCP stack can run out of memory under certain conditions. When this happens, IEMS 5 modules and all TCP base client software will not be able to make new TCP connections. It is recommended that Windows 98 be replaced with a more robust operating system, like Windows NT or Linux.

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SOFTWARE AND HARDWARE REQUIREMENTS

For optimum performance, it is recommended that IEMS and its components be installed using the following minimum configurations:

For Windows 98

- Pentium or higher
- Minimum recommended RAM: 64MB
- Minimum recommended hard disk space for applications: 200MB
- Minimum recommended hard disk space for message store: 1GB or dependent on the number of users

For Windows 2000 and Windows NT 4.0 with SP4

- Pentium or higher
- Minimum recommended RAM: 96MB
- Minimum recommended hard disk space for applications: 200MB
- Minimum recommended hard disk space for message store: 1GB or dependent on the number of users

For Linux

- Pentium 133 or higher
- Minimum recommended RAM: 64MB
- Minimum recommended hard disk space for applications: 200MB
- Minimum recommended hard disk space for message store: 1GB or dependent on the number of users.

IEMS supports the following Linux distributions:

- RedHat 6.2, 7.0, and 7.1
- Caldera 2.3.1
- VALinux 6.2.3
- TurboLinux Server 6
- Suse 7.1
- Mandrake 7.2 and 8 beta 1