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# Internet Exchange News

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## NEWS FLASH!!!

## IMA Releases The Next-Generation Enterprise Messaging Server 4.1

International Messaging Associates Ltd. (IMA) has released its **Internet Exchange Enterprise Messaging Server (IEMS) version 4.1**, with newly added features such as the Web Mail Client and the Message Store Quota Agent.

IEMS 4.1 extends Enterprise messaging beyond traditional limits with a fully enhanced, open architecture messaging solution. It consists of easy-to-configure modules that allows the machine to handle various tasks simultaneously. The Messaging Server is responsible for sending and receiving messages over the Internet using either the SMTP protocol or the Batch SMTP tunnel. Once the messages are received by the IEMS, the Message Transfer Agent (MTA) then routes the messages to the appropriate channels (SMTPC, SMTPD, LOCAL, DL, CCMail, NOTES, etc.) and performs preset processing on each message, after which the message routing is facilitated by the IEMS Directory Server.

The IEMS is built on Lightweight Directory Access Protocol (LDAP) Directory Services, Simple Mail Transfer Protocol Daemon (SMTPD), Simple Mail Transfer Protocol Client (SMTPC), Message Transfer Agent (MTA), Internet Mail Access Protocol (IMAP4), Post Office Protocol (POP3) Client-Server, Distribution List (DL) Manager, Local Message Store,

Quota Agent, Preprocessor Module, Batch SMTP, and a Web Mail Client that ensures a dynamic messaging solution for any kind of enterprise.

### Web Mail Client

The Web Mail Client is a new feature of IEMS 4.1 that allows you compose mail messages, reply or reply all to received mails, forward mail messages as well as upload file attachments anytime, anywhere using a standard web browser such as Netscape or Internet Explorer. It connects the standard mailboxes such as Inbox and Outbox for storing and managing your received as well as sent mail messages. It also allows you to create your own folders where you can move or copy your mail. Users can now enjoy reading and sending their mail at their own convenience.

You can also customize its appearance according to the preference of your enterprise. System administrators can customize the Web Mail Client using domain based-stylesheets. You can also define the headers and footers by using html/plain text files or running your own executable programs. The headers and footers can be further defined for multiple domains in case the Internet Exchange Messaging Server is set to handle multiple domains. The headers and footers are applicable to both menu and body of the Web Mail Client Interface.

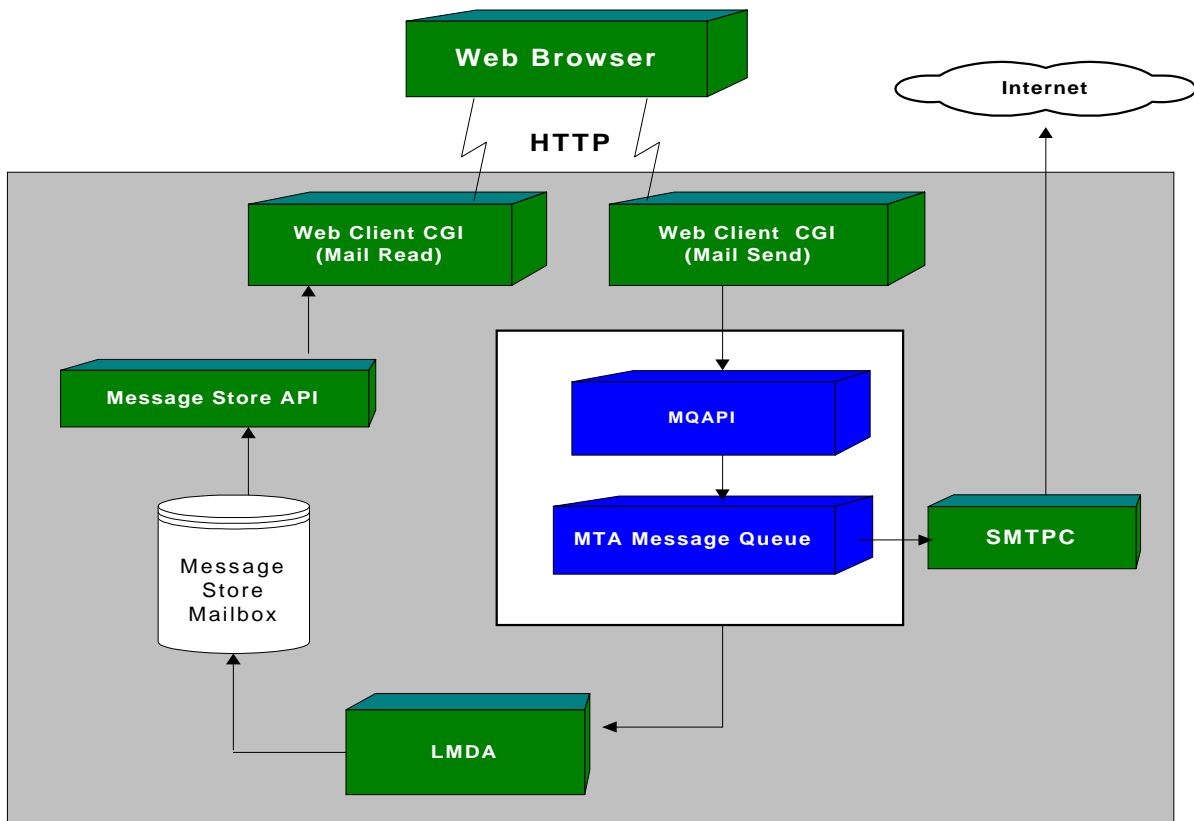


Figure 1: The Web Mail Client Architecture

The Web Mail Client is a collection of Common Gateway Interface (CGI) programs that allows end users to access their mailboxes from the IEMS Message Store using any kind of web browser. The set of CGI programs uses the Message Store Application Programming Interface (MS-API) to interface with the optimized IMAP4 Message Store. This allows users to access the Message Store via the web browser in addition to access via IMAP4/POP3 standard clients.

Mail Messages from the Web Mail Client are routed to the internet via the Internet Exchange Messaging Server. The Web Mail Client uses the Message Queue API (MQAPI) to submit the mail message to the Message Queue which is responsible for distributing the mail to the proper channels in the Internet Exchange Messaging Server. The Web Mail Client CGIs use the Message Store API to directly access the Mailbox Database and Mail File thus, eliminating the use of standard protocols such as IMAP4/POP3 to access the mail from the optimized Message Store. See **Figure 1** for more details.

### Message Store Quota Agent

Another newly added feature of the **Internet**

**Exchange Enterprise Messaging Server 4.1** is the Message Store Quota Agent. It is a system tool that allows the system administrator to set and enforce disk usage quotas on all the Message Store user accounts. This feature limits the amount of resources that are allocated to the individual users to prevent them from consuming all of the available disk space. The Message Store Quota Agent provides a simple disk monitoring system that allows the system administrator to monitor the disk usage of all the users in the server. Aside from controlling the size of the disk usage, the system administrator can also monitor the total number of users as well as those who have exceeded the quota.

The Message Store system information such as disk usage will be gathered by the Message Store quota agent. Its primary function is to set and enforce disk quotas to the individual Message Store users. The quota agent will generate reports in the form of HTML and TEXT files to let the system administrator verify the Message Store's performance. The reports in HTML format are available in the Internet Exchange Messaging Server web interface, while TEXT file reports will serve as file attachments to

mails sent to the system administrator. The quota agent can be run instantaneously or during their scheduled time of activation. The system administrator can configure the time schedule of the Quota Agent by selecting a preferred run-time schedule. He can choose from two options: Daily or Weekly.

### Key Features

#### Setting of a Default User Quota in the Message Store

Using the Message Store Web Interface, the system administrator can set a limit on the disk usage for every Message Store user. The administrator can set a disk usage limit during the creation of users as well as modify an existing user account. The default quota limit that can be set for each user is defined using the Quota Agent web interface.

#### Scheduled Checking of User's Disk Quota and Disk Usage

There are two scheduling options, namely daily scheduling and weekly scheduling. The scheduling states how often the Quota Agent checks the user quota usage. It also notifies the user of its current disk usage in the Message Store. The Quota Agent checks the user's disk usage everyday according to the scheduled time set by the system administrator.

#### Message Notification on User's Disk Usage

A notification message will be sent to the user if the following conditions are met:

- The disk space utilization of the user reaches the

threshold limit.

- The allotted disk usage of the user exceeded the maximum allowed in the Message Store.
- The grace period has expired and the user account is still over quota.

When the disk space utilization of the user reaches the threshold limit, a warning message will be sent. The following is a sample warning message of the Message Store Quota Agent:

To: [john.doe@ima.com](mailto:john.doe@ima.com)  
 From: [postmaster@ima.com](mailto:postmaster@ima.com)  
 Subject: Your account size has exceeded the set limit

Dear Message Store User,

Your Message Store account has exceeded the set limit. Please delete some of your messages. Your Message Store account is limited to [Quota] MB of disk usage and you are currently consuming [Warning Level]% of the actual disk space assigned to you.

When you delete your messages, it is recommended that you delete messages which contain attachments, as they tend to be the largest in size.

Regards,  
 Message Store Administrator

When the user exceeds his allowed disk quota, the Quota Agent will send a Notification Message stating that he will be given a grace period from the date of notification to reduce his disk space usage below the allotted quota. If the grace period has expired and the

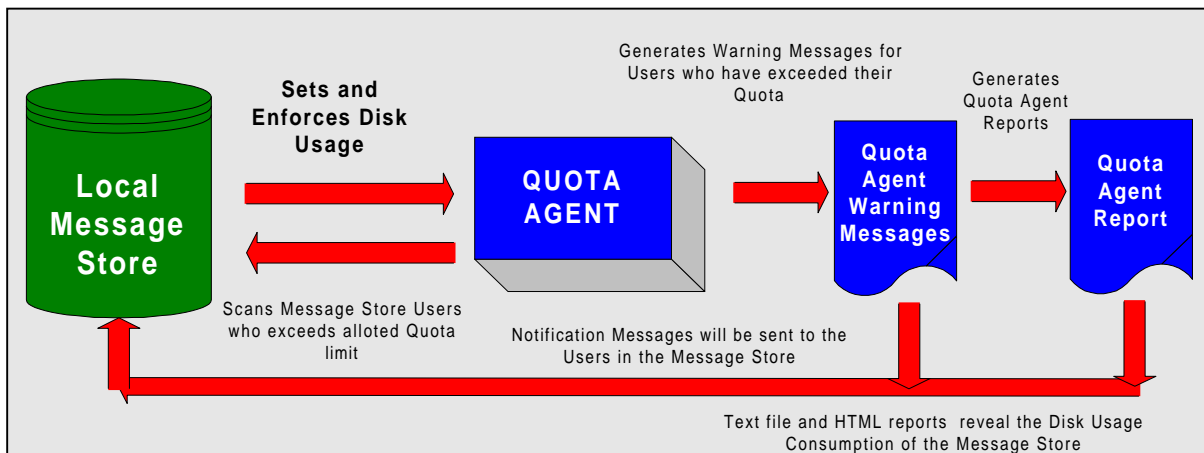


Figure 2: The Message Store Quota Agent

user is still over the above quota, the Quota Agent will disable the said account of the particular user.

The Notification Message includes the Date and the Quota assigned to the user. The Date is determined depending on the grace period. If the grace period is set for two weeks, the current date will be adjusted to two weeks ahead of time. This will be the grace period for the user to reduce his disk consumption below the allotted disk quota. The same applies if the grace period is set to one week. The quota will also be displayed.

As for the third condition, when the grace period has expired and the user account still exceeds the disk quota, a notification message will be sent to the user stating that his account has already expired. These notification messages are sent according to the scheduling option set by the system administrator. For tracking purposes, the system administrator also receives a copy of the notification message sent to the user.

### ***Generates a Summary Report of the Disk Quota and Disk Usage***

When the run-time schedule is reached, the Quota Agent will retrieve all the Message Store users and will determine each user's disk quota and disk consumption. All the data gathered by the Quota Agent will be saved to a file. This will be the summary report file. The summary report file lists the current Message Store users with their corresponding disk usage and disk consumption. The summary report is always

sent to the system administrator for tracking purposes.

The Quota Agent *System Report for Message Store* page summarizes the Quota Status of the Message Store. The table displays the Home Directory, Total Disk Usage, Total Number of Users and Total Number of Users Over Quota. The program also sorts all the users by their FQDN.

### ***Archive Summary Report***

Aside from the summary report notification, the Quota Agent also saves the summary report to the Message Store's home directory under the History Folder. This serves as a backup report for the system administrator.

The Quota Agent History will serve as the archive of all the text file reports generated by the Quota Agent engine. The System Administrator can browse through the previous reports via the Quota Agent History Report page. The History Report page can be viewed by clicking the *Quota Agent History* link of the Message Store Web Interface.

The History Report includes the Run Time Date of the Quota Agent engine. Each Run Time Date is the link to the generated text file report. Take Note that the Run Time Date includes three attributes which summarizes the Quota Report. These attributes are the: *Used Space*, *Total Number of Users* and *Total Number of Users Over Quota*. Clicking on the Run Time Date will, on the other hand, display the Quota Agent Text File Report.

## ***Questions and Answers***

*Continued from page 7*

date pattern filter is needed. Once these filters are applied, the date/time stamp will be removed from the attachments.

Following are the keywords that can be used to define the filters.

*Time filter:*

'd', 'dd', 'm', 'mm', 'mmm', 'yy', 'yyyy'

'd': 1-31'mm': 01-12

'mmm': Jan,..Dec

'yy': 00-99

'yyyy': 4-digit year field.

*Time field:*

'h','hh', 'm', 'mm', 's', 'ss'

'h': 0-23

'hh': 00-23 (or 00-12 if it is not a 24-hour notation)

'm': 0-59

'mm': 00-59

's': 0-59

'ss': 00-59

**Note:** The separator is not only limited to "." but all characters with the exception of "H", "M", "S", and "Y".

## ***Message from the Editor***

To provide a comprehensive and user-friendly manual that will accompany the release of Internet Exchange Messaging Server 4.1, IMA documentation department had to skip the publication of its monthly newsletter for January and February 2000 issue.

## Customizing The Web Mail Client Login Page Using Multiple Domains

The Web Mail Client Login module enables the system administrator to customize the login page where the individual users login. If the system administrator or webmaster would like to override the default login page, he can create an HTML program with a FORM component pointing to `/iev4/scripts/login.exe`. Below is an example of how to customize the login page of the Web Mail Client:

```
<FORMaction="/iev4/scripts/login.exe"
method=POST >
  Username: <INPUT TYPE=TEXT name="name"
  MAXLENGTH="255" SIZE="16">
  Password: <INPUT TYPE=PASSWORD
  name="password"
  MAXLENGTH="32 SIZE="16">
  <INPUT TYPE=SUBMITname="Command"
  value="Login">
</FORM>
```

In addition to the above key-values, an optional parameter “*domainname*” is added for supplying the Internet domain. This allows the system administrator to design a login page that the mailbox users need, to supply only the “local part” of their email address. Below is another example of how to customize the login page using the local part of the email address:

```
<FORM action="/iev4/scripts/login.exe"
method=POST>
  Username: <INPUT TYPE=TEXT name="name"
  MAXLENGTH="255" SIZE="16">
  Password: <INPUT TYPE=PASSWORD
  name="password"
  MAXLENGTH="32" SIZE="16">
  <INPUT TYPE=SUBMIT name="Command"
  value="Login">
  <INPUT TYPE=HIDDEN name="domainname"
  value="ima.com">
</FORM>
```

The HTML sample below shows how to create a multiple domain on a single login page.

```
<HTML>
<HEAD>
  <TITLE>Welcome to XYZ free web mail service</
  TITLE>
</HEAD>
<BODY bgcolor=#AABBFF text=darkblue>
  <FORM action="/iev4/scripts/login.exe"
  method="POST">
    <TABLE>
      <TR>
```

```
<TD><fontface="Arial,Helvetica" color="#006600"
  size=-1>Username:&nbsp;&nbsp;&nbsp;</font></TD>
  <TD>
    <INPUT NAME="name" VALUE=""
    TYPE=text
    MAXLENGTH="255" SIZE="16">
    <font face="Arial,Helvetica"
    color="#006600"
    size=-1>
    &nbsp;&nbsp;&nbsp;@&nbsp;&nbsp;&nbsp;
    </font>
    <SELECT NAME="domainname" SIZE="1">
    <OPTION VALUE="ima.com">
    IMA.COM
    <OPTION VALUE="mobile.ima.net">
    MOBILE.IMA.NET
    </SELECT>
    </font>
  </TD>
</TR>
<TR>
  <TD><font face="Arial,Helvetica"
  color="#006600"
  size=-1>Password:&nbsp;&nbsp;&nbsp;</font></TD>
  <TD>
    <INPUT NAME="password" VALUE=""
    TYPE=password MAXLENGTH="255"
    SIZE="16">
  </TD>
</TR>
<TR>
  <TD colspan=2 align=CENTER>
    <INPUT TYPE=SUBMIT NAME="Command"
    VALUE="Login">
  </TD>
</TR>
</TABLE>
  <!--INPUT TYPE=HIDDEN
  NAME="domainme"
  VALUE="ima.com"-->
</FORM>
</BODY>
</HTML>
```

To illustrate the HTML sample above, a sample login screen below shows the output of the HTML sample.

# Questions & Answers

**Q: I am using the latest Lotus Notes R5. Is this version supported by Internet Exchange?**

**A:** Yes, both Internet Exchange for Notes 3x and Internet Exchange Messaging Server 4x supports Lotus Notes R5. You may download the installation procedure at <http://www.ima.com/pdf/notes5config.pdf>

**Q: My Internet Exchange gateway stops receiving Internet mail after installing IIS4 with the following error messages from the log file:**

Fri Mar 12 15:11:31 smtpd: Initialized SMTPD successfully

Fri Mar 12 15:11:31 smtpd: bind on socket #204 failed: 0

Fri Mar 12 15:11:31 smtpd: daemonInit failed

Fri Mar 12 15:11:32 smtpd: exit

**A:** Internet Exchange's SMTPD module is conflicting with IIS4's SMTP server that uses port 25, disable the IIS4's SMTP by NT's Control Panel/Services window.

**Q: Our IMA NOTES SMTP server is open to mail relay attacks. The "Reject Remote Recipients" option has been enabled for many months now. I know that there are some notes.INI additions that I can make but we are not running the notes SMTP MTA so I doubt if it would have any effect. How can I lock down our SMTP server?**

**A:** Set the option in IELN.INI

[Options]

UseUnResolvableNotesAddress=NO

This will force NOTESIN to match recipient Notes address with the Notes Server address book. If no

match can be found, NOTESIN will bounce the mail. The side effect of putting this option requires the Notes Server Address Book to contain all of the Notes user names. Therefore, if you have multiple Notes domains, it is required to replicate all server address book to the Notes Server that IELN connects to.

**Q: I am running Internet Exchange for ccMail 3.13. My problem is that whenever Internet Exchange receives a message with a ".TXT" file attached, the attached file is automatically shown in the body of the message. I want the file to be shown in an attachment form.**

**A:** To import any text item as an attachment by CCIN, set the option "ImportMIMETextAsAttachment" to YES. Then, add the option "TextSubtypeList" in the IMA.INI file. This option stores a list of MIME subtype value that CCIN should treat it as attachment. For example, if the customer wants every TEXT/BASIC items imported as an attachment, he needs to add:

[Options]

ImportMIMETextAsAttachment=YES

TextSubtypeList-BASICList=BASIC, HTML, PLAIN

in the IMA.INI file. If he wants to support multi-text subtype, just put all the names in the Subtype

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***"The mark of a good action is that it appears inevitable in retrospect."***

- Robert Louis Stevenson

## This Month's Tip

### How to generate System Reports using the Quota Agent

Internet Exchange Enterprise Messaging Server 4.1 Quota Agent also generates a Quota Report on the fly. This is accomplished by clicking the *View Disk Usage* hyperlink of the Message Store Web Interface. This link generates the HTML report, which sorts all the users by their Fully Qualified Domain Name (FQDN).

When the run-time schedule is reached, the Quota Agent will retrieve all the Message Store users and will determine each user's disk quota and disk consumption. All the data gathered by the Quota Agent will be saved to a file. This will be the summary report file. The summary report file lists the current Message Store users with their corresponding disk usage and disk consumption. The summary report is also sent to the system administrator for tracking purposes.

The Quota Agent *System Report for Message Store* page summarizes the Quota Status of the Message Store. A table displays the Home Directory, Total Disk Usage, Total Number of Users and Total Number of Users Over Quota. The program also sorts all the users by their FQDN. It displays the profiles of the entire Message Store Users with their respective disk usage.

## Questions and Answers

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list, separate each item with a "comma" (e.g. TextSub-type)

**Q: I installed the Notes connector but won't need it until later. How do I disable NOTESIN and NOTESOUT temporarily?**

**A:** If you have installed IEMSV4.02, you can go to the Responder webpage and click the CONFIGURE LOCAL COMPONENTS and uncheck the NOTESIN and NOTESOUT auto start, restart, and stop.

Another way is to edit your IEMTA.INI and put a N,N,N under NOTESIN and NOTESOUT.

```
[Local Components]
LDAPSERV=LDAPSERV,Y,N,N,W=5
PREPROCESSOR=PREPROCESSOR,Y,N,N,W=30
LOGD=LOGD,Y,Y,Y
MQROUTER=MQROUTER,Y,Y,Y
SMTPD=SMTPD,Y,Y,Y
SMTPC=SMTPC,Y,Y,Y
BSMTP=BSMTP,Y,Y,Y
DL=DL,Y,Y,Y
CCIN=CCIN,Y,Y,Y
CCOUT=CCOUT,Y,Y,Y
NOTESIN=NOTESIN,N,N,N
NOTESOUT=NOTESOUT,N,N,N
LOCMails=LocMailServer,Y,Y,Y
LOCMail=LOCMail,Y,Y,Y
IMAPD=IMAPD,Y,Y,Y
POP3D=POP3D,Y,Y,Y
MSGSTORS=MsgStoreServer,Y,Y,Y
```

**Q: We work with Internet Exchange 3.12 for cc:Mail and have the following problem.**

If I attach a file (by example "test.doc") and send it to the Internet, the recipient gets the mail and also the attachment, but the file name is "test.doc 24.11.99" instead of "test.doc". The attachment itself seems to be OK, but the file name includes the date when the attachment was created/changed. What's wrong? What shall we do?

**A:** In Internet Exchange 3.12, if CCOUT encounters a date/time stamp, it adds this date/time stamp to the attachment name, e.g. Progress report.doc 12/12/99 13:03. The CCOUT module shipped with Internet Exchange 3.12 and older versions applied the following logic to remove the date/time stamp: scan for the last dot "." from right to left, if dot "." is found, remove all characters until the last space before the dot. Using the above mentioned logic, the filename would then be "Progress report.doc".

Once a file name has been derived, CCOUT then maps

the extension with the correct MIME type.

The above mentioned logic works perfectly okay except when the date/time stamp is separated by a dot "." e.g. Progress report.doc 12.12.99 13:03

If the same logic is applied to the above mentioned file name, CCOUT will attach the file name as:

Progress report.doc 12.12.99

In this case, only the time field is removed. Thus, CCOUT is unable to map the correct MIME headers and problems may be encountered in opening the attachment. Starting from Internet Exchange 3.13, appropriate filters have been implemented to solve this problem. These filters are classified as options which must be added to the IMA.INI file.

In order to activate the filtering capability of Internet Exchange 3.13 and attach the filenames of attachments correctly, the following line needs to be added under the [option] section in the IMA.INI file.

UseDateFilter=YES

Now, under the [DateTimePattern] section, the filters are defined as follows:

[DateTimePattern]

Pattern1=dd.m.yy h:m AM

Pattern2=dd.m.yy h:m PM

In case of a 12-hour notation, i.e. considering AM and PM, at least two filters must be defined in the time field, while in the case of a 24-hour notation, only one

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## Internet Exchange News

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