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Internet Exchange News

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International Messaging Associates (IMA) Ltd.
Hong Kong Computer Center
54-62 Lockhart Road
Wan Chai, Hong Kong
Tel: +852 2520-0300
Fax: +852 2648-5913

IMA Philippines Inc.
The Peak Tower
15/F 107 Alfaro Street
Salcedo Village
Makati City, Philippines
Tel: +63 (2) 811-3999
Fax: +63 (2) 811-3939

US Support: +1 (408) 481- 9985
US Sales: +1 (408) 481- 9985
US Fax: +1 (888) 562 - 3561

Email: info@ima.com
Website: www.ima.com

NEWS FLASH!!!

Internet Exchange 4's Batch SMTP Module: *Providing a reliable alternative to SMTP for dial-up connected sites*

The majority of messaging systems on the Internet directly support the SMTP (Simple Mail Transfer Protocol), with SMTPC (client side) sending email and SMTPD (server side) receiving email. This combination, though considered as the de-facto transport for email on the Internet, comes with its own limitations. In certain circumstances, it is much easier to use alternative methods of transport. Following are some of the situations where other surrogate methods can prove to be very useful and highly effective.

- When a dedicated Internet protocol (IP) address is not available.
- When there is low message volume.
- When a dedicated Internet connection is not cost effective.

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IMA Releases Internet Exchange 3.13 for cc:Mail and Lotus Notes

In line with its tradition of producing reliable, efficient, and affordable messaging products for the Internet community, International Messaging Associates Ltd. (IMA) announces the release of Internet Exchange 3.13 for cc:Mail and Lotus Notes environments. Internet Exchange 3.13 is the latest addition to IMA's family of gateways, which are considered the best in the industry.

Version 3.13 features several enhancements and bug fixes over Internet Exchange 3.12. A much improved Dial-up Scheduler is bundled with Internet Exchange 3.13. With the new Dial-up Scheduler, Internet Exchange can now connect to NT RAS (Remote Access Service) servers without RAS scripting. In the previous version, RAS scripts were needed to provide connectivity and access information such as the username and password. In Version 3.13, such information is obtained from the pre-configured RAS profile, enabling the Dial-up Scheduler to connect to a RAS server running on a Windows NT machine even

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- When Internet connectivity is available only on a dialup basis.

To overcome the above mentioned limitations of SMTP as a message transport agent, Internet Exchange Version 4 comes with a standard Batch SMTP (BSMTP) tunnel encoder and decoder. This essentially allows for the tunneling of Internet electronic mail across non-SMTP message transports. The Batch SMTP encoder supports the encoding or tunneling of mail directed to a single address or a complete domain to an administrator defined Internet address where appropriate decoding or de-tunneling can take place. The destination address can be on the Internet Exchange Messaging Server (IEMS) or any other mail server with an RFC-2442 complaint decoder installed. The Batch SMTP decoder works together with the POP3 client module by picking up remote messages using the POP3 protocol. It then de-tunnels the messages by re-injecting them into the IEMS's Input Queue.

The Batch SMTP Advantage

The Batch SMTP Tunnel presents an ideal solution

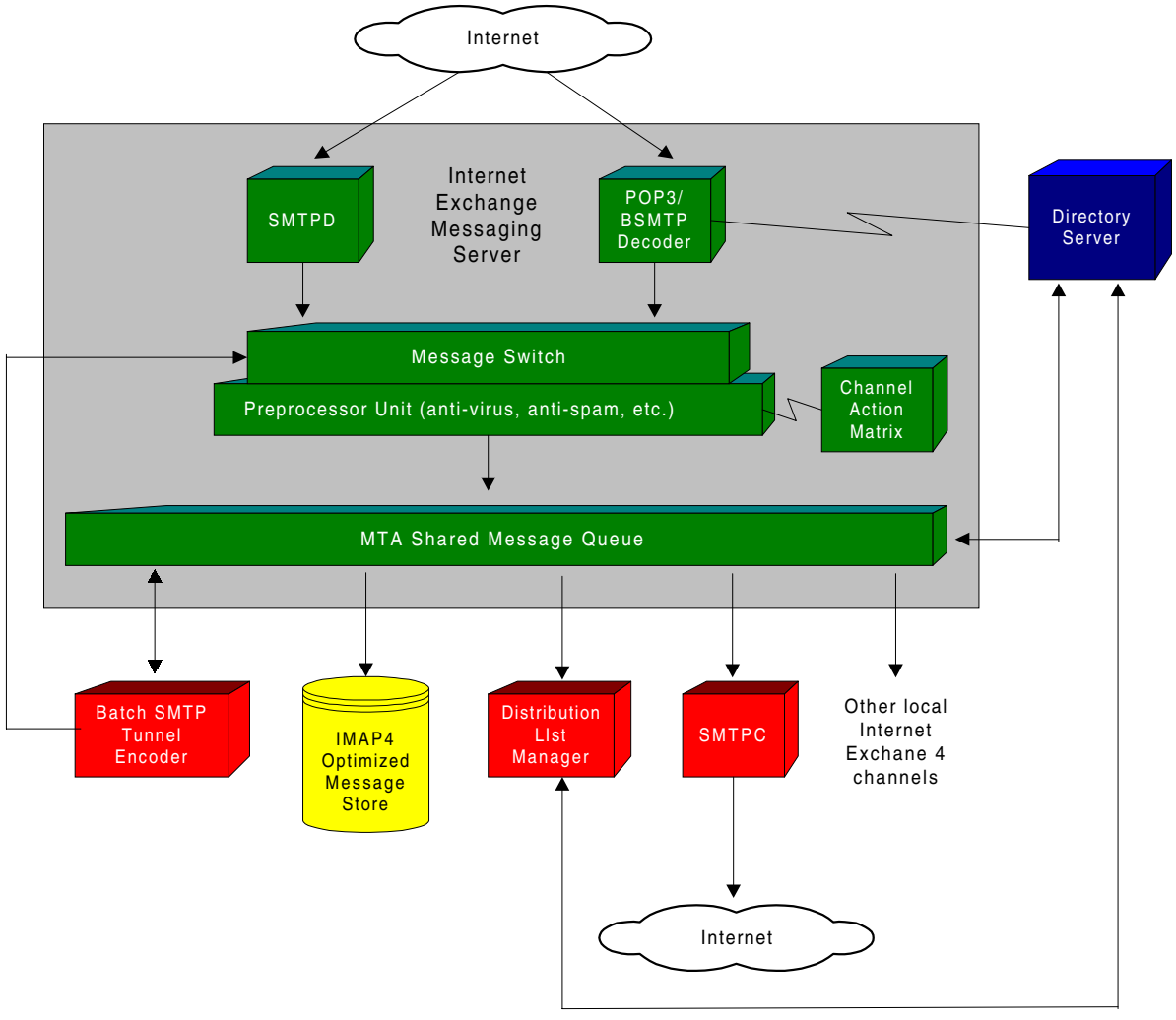

Figure 1. The Batch SMTP Module and the Internet Exchange Messaging Server

for sites that prefer to use POP3 as their message retrieval protocol instead of SMTP. In addition, Batch SMTP also provides protection against improper routing of messages by preserving the message envelope across non-SMTP transports such as POP3, unlike other systems that try to recover message envelope information from the message headers.

When an end user composes a message using a mail client or user agent (UA), such as cc:Mail, Lotus Notes, and Microsoft Outlook Express, he/she is provided with an interface for providing addressing information (To:, Cc:, and Bcc:) and a Subject: heading as minimum requirements. Once the user has written the message, the UA can then be prompted to send the message. When the user gives the order to send the message, a message file and an envelope are constructed by the UA. The message file contains the message header, which consists of the original To: and Cc: *(we will call them Header Recipients)*, and Subject: fields *(excluding the Bcc: information)*, the return address of the sender, and the message body. It also indicates the date/time when the message was composed. The envelope, on the other hand, contains the email addresses of all the recipients, including the Bcc: field *(we will call them Envelope Recipients)*. The message file and envelope are separated not only to enable the proper routing and rerouting of messages but also to preserve the original labelling of the messages as composed by the sender.

After the message file and envelope have been constructed, they are sent together to a local Message Transfer Agent (MTA) for delivery across the Internet to the intended recipients. The message file remains unchanged during transit, although trace information is added to the message headers. In particular, the *Header Recipients* information usually remains the same as it was when the user first composed the message. On the other hand, *Envelope Recipients* information is likely to change during transit, particularly when mail aliases, user forwarding, and/or distribution lists are encountered.

When the message arrives at its final destination, it is forwarded by the MTA to a local mail delivery agent, which deposits the message file in the appropriate mailbox. Envelope information is discarded. Thus, the message, when viewed by the recipients only indicates the original *Header Recipients* addresses without the *Envelope Recipients* information. This can lead to problems especially when the message is delivered to a POP3 account that serves as a temporary holding area for more than one recipient. When this message is retrieved for later delivery, recipient information will be reconstructed only from the message file *(which only contains the header recipients)* since the *Envelope Recipients* information has already been discarded with the envelope. Thus, the *Envelope Recipients* will not show up in the message header of the reconstructed message, preventing those recipients from receiving a copy of the message. Moreover, any changes to the envelope that resulted from alias expansion, user

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Questions & Answers...

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Q: Does Internet Exchange scans for words in messages that may be used as a basis to reject certain email, specially those sent by spammers?

A: No. Internet Exchange is not designed to scan words in messages to discourage senders of junk mail, more popularly known as spammers. Instead, the system administrator can use Internet Exchange to create a list of banned IP addresses/address ranges, a list of banned hosts or domains, or a list of banned email addresses. In addition, the system administrator can determine what action(s) to take on spam mail. Once a spam message has been identified, the system administrator :

- rejected by SMTP
- deleted from the queue directory
- moved from the queue directory to the SPAM directory

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Staff

Editor-in-Chief ..... Ajmal Samuel
Editor ..... Rommel Fajardo
Editorial Consultant ..... Tim Kehres
Graphic Artist ..... Rommel Fajardo
Contributors..... Jennifer Villamor, Imee Villeza

Please send your comments and suggestions to: doc@ima.com

Questions & Answers

Q: We are using Internet Exchange 3.12. Recently, we have been experiencing problems receiving messages via POP3. We have also encountered this error:

Mon Jun 07 09:36:39 POP3D: [Error] bind failure 10048

Is this a bug in the POP3 server? What does this error mean, and how do we solve this problem?

A: Error code 10048 means that the POP3 server cannot bind to the socket because it is already occupied by another POP3 server. We have analyzed the log files that you have sent us and they indicate that another server is installed and running on your machine. Make sure that there is only one POP3 server running on your machine to prevent this kind of error from occurring again. Also, make sure that your local Internet domain is properly defined in the *Alternate host/ domain names* field under the *Connections* tab in the Internet Exchange setup page.

Q: We are using Internet Exchange 3.12 for cc:Mail, and occasionally we encounter this message from the SMTP client:

" Not yet ready for retry."

Is this a bug in the IMA gateway or does it have something to do with our Internet service provider? How can we solve this problem?

A: There are several reasons why this problem may occur, including the following:

- The recipient address cannot be resolved.
- Sometimes, when a message is sent to a certain address, that particular address may still not be ready to accept mail due to heavy load.
- Destination host is down. When a message cannot be sent to the Internet due to a temporary error, SMTPC uses an exponential backoff algorithm to calculate the time when it should try sending the message again. SMTPC will not attempt to send the message until the computed specified time.
- There is a problem in the network path between the gateway and the peer host.

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"You think it's a conspiracy by the networks to put bad shows on TV. But the shows are bad because that's what people want. It's not like Windows users don't have any power. I think they're happy with Windows, and that's an incredibly depressing thought." – Apple CEO & co-founder Steve Jobs

This Month's Tip

Viewing text files as separate attachments instead of part of the message body

By default, Internet Exchange 3.x for cc:Mail and Lotus Notes import file attachments with the extension *.txt* as part of the body of the incoming message. To enable Internet Exchange to treat such files as separate attachments and not as part of the message body, the system administrator must add several lines to the *Options* section in the *IMA.INI* file manually. For Internet Exchange 3.x for Lotus Notes, add the following lines:

[Options]
Concatenate TextItem=NO
AttachRTFAsFileAttachment =YES

For Internet Exchange 3.x for cc:Mail, add the following lines to the *Options* section:

[Options]
ImportMIMETextAsAttachment=YES
TextSubtypeList=BASIC

For Internet Exchange 3.x for cc:Mail, the system administrator has the option to support multitext subtypes. Simply put all subtype names and separate each item with a comma, i.e.:

TextSubtypeList=BASIC, HTML, PLAIN

Adding the aforementioned lines to the *IMA.INI* file will enable Internet Exchange 3.x for cc:Mail and Lotus Notes to treat attached files with the extension *.txt* as separate file attachments.

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forwarding and/or distribution list expansion after the original message was sent by the sender will not be reflected in the reconstructed message. This means that only some of the intended recipients of the message as specified by the sender in the original message will receive a copy of the message, since there is no reliable way to reconstruct the list of recipients using only the message file.

With Internet Exchange 4's Batch SMTP Module, such problems are avoided. When a message from local Internet Exchange 4 environment arrives at the BSMTP Encoder, both the message file and envelope information are encapsulated into a new message. The new message is then addressed to a BSMTP Decoder with an email address accessible either on the Internet or any other local Internet Exchange 4 channels, such as the Message Store. The BSMTP Decoder de-tunnels the message and then submits the original message file and envelope information to the Internet Exchange 4 MTA for further routing.

Conclusion

Internet Exchange 4's Batch SMTP Module ensures that all information needed by the MTA to deliver a message to all of its intended recipients is retained within the message. When a message is delivered via a Batch SMTP Tunnel to a message repository, such as a POP3 account, the original *Envelope Recipients* remains intact within the tunnelled message even if the accompanying envelope has already been discarded. Thus, Internet Exchange 4's Batch SMTP Module serves as a guarantee that all the original *Header Recipients* and *Envelope Recipients* will receive a copy of the message no matter how many MTAs the message goes through.

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without RAS scripts. This reduces the workload of the administrator considerably and improves gateway efficiency. Another addition to Internet Exchange's already numerous features is the ability to accept any characters other than the colon (":") in the date/time pattern string. This new feature will prove to be very useful in European countries where dot (".") is used as separators in the date/time pattern string. For example:

[DateTimePattern]
Pattern1=dd.mm.yy hh.mm AM
Pattern2=dd.mm.yy hh.mm PM

This feature prevents the date to be appended to the filename of the message attachment, which may lead to problems in the opening of the attached file.

Aside from the new features, Internet Exchange 3.13. also contains several bug fixes. In Version 3.12, when a non-MIME message contains the word "begin" (case insensitive) in the message body, it causes an exception error in CCIN. Internet Exchange 3.12 also experiences problems in handling RFC-822 message headers that contain a malformatted header address. Both these problems have been fixed in Version 3.13.

Also, in Internet Exchange 3.12, forwarding address lookup for CCIN is case sensitive. Thereby, if an address is specified in the message header in lower case and it is entered in upper case in the address book, address lookup will fail and the message will not be sent to its intended recipient. In Internet Exchange 3.13, the DBUPDATE.EXE program converts USERFWD.BTR from case sensitive to case insensitive. This conversion is performed in the background during the installation of Version 3.13.

Version 3.12 also issues an SMTPD exception error when the RCPT TO address is longer than 255 characters. In Version 3.13, instead of issuing an SMTPD exception error, Internet Exchange will issue a permanent SMTP error ("address too long") whenever it receives a RCPT TO address with more than 255 characters. This will enable the gateway administrator to rectify the error immediately.

To download a copy of Internet Exchange 3.13 for cc:Mail and Lotus Notes, please visit IMA's website at *http://www.ima.com*.