

## POP3 and SMTP support in Notes 4.6

by David DeJean

*[Editor's note: This article resides in "Iris Today," the technical Webzine located on the <http://www.notes.net> Web site produced by Iris Associates, the developers of Domino/Notes.]*

### Overview

With support for POP3 and SMTP, the standard Internet protocols for sending and receiving electronic mail, Lotus Notes Release 4.6 brings Internet mail users the benefits of the Lotus Notes document management tools and user interface.

If you have an e-mail account with an Internet service provider, Notes 4.6 can exchange e-mail with that account through either a TCP/IP or dial-up connection and deposit incoming messages either in your Notes mail database or a separate mail file. You don't have to be using a Domino server in order to take advantage of the Notes features for managing Internet mail. You can send mail immediately if you have a network connection with Internet access that will pass the required e-mail protocols. Or you can work unconnected to create mail and send when you reconnect. You can set up a replication schedule for your Internet mail. You can use your Notes Personal Address Book and all the functionality of the Notes 4.6 mail file. And you can bring all the customization tools of Notes to bear on Internet mail.

### Taking a closer look

Release 4.6 adds the functions of an Internet e-mail client to Notes. This new release supports the Post Office Protocol (POP3) and Simple Mail Transfer Protocol (SMTP) -- POP3 for receiving incoming messages from an Internet service provider host, and SMTP for sending messages and attachments. Notes 4.6 can connect to these mail servers through either a remote LAN dial-up connection or a networked TCP/IP connection. (If you are connected to a local area network or intranet protected by a firewall, and your mail servers are on the other side of the firewall, the firewall must pass through POP3 and SMTP calls).

You have control over the relationship between Notes mail and Internet mail. If you want to combine the two, you may choose to have incoming Internet messages stored in a local replica of your Notes mail file. If you want to keep Internet messages separate, or you aren't using Notes mail, you can use the Release 4.6 mail template to create a mail database on your workstation.

Either way, you have all the functions of Notes available for managing your Internet mail, including the folder hierarchy, using the Personal Address Book for address lookups and group expansion, full-text search, and agents for processing incoming mail and generating responses (although you cannot run server-based agents on your Internet mail server).

Your options for exchanging Internet mail will be familiar if you've ever run Notes in stand-alone mode:

- If your Location document defines your mail type as "Internet" and location type as "No connection," Notes creates a file, SMTP.Box, to hold outgoing mail. As you create messages, they are stored here just as Notes mail is held in a file called Mail.Box.
- When you connect to your Internet service provider and switch to a connected location, the contents of SMTP.Box are sent to the SMTP server and the POP3 server is queried for new messages, which are added to your mail file. (If you have a full-time network connection to your Internet mail provider, outgoing messages are sent immediately.)
- You can set up scheduled replication to send and receive messages. If new messages are added to your mail file, Notes will pop up a notification, just as it does with Notes mail.

Support for POP3 and SMTP protocols is another step in the integration of Internet standards in Notes. It offers several benefits for users:

- Compared to other Internet mail clients, Notes 4.6 delivers a uniquely robust Internet mail client with a user interface and features that aren't matched by other Internet mail-only clients.
- It reduces the number of client applications that must be installed, maintained and mastered.
- It allows Notes users who must also access external Internet mail accounts to integrate their message databases.
- In organizations that are not standardized on Notes mail, it gives Notes users an alternative if there is no in-house e-mail, or easy access to intranet-based mail systems.

Adding support for Internet mail to the Notes 4.6 client was familiar ground for the developers at Iris who had already implemented POP3 and SMTP support on the server side. Work on the client actually began with Release 4.5, which included code for retrieving POP3 messages that was not exposed to the user.

Finishing up the underlying code for SMTP sends and fitting the new functionality into the Notes interface has been the job of Jackie Ferguson. While her goal was to make Internet mail work as much as possible like Notes mail, there are a few differences. "The POP3 and SMTP protocols aren't as full-featured as Notes," she says. "You're not interacting with your mail on an Internet server the way you can with a Notes server."

Notes can take advantage of features and functions that the Internet protocols don't support, like its ability to transmit rich text. You can create attachments in Internet mail just as you can in a Notes message, for example, but you can't embed an inline image in text. "You get pretty much the same level of support for MIME types in messages that you got in the POP3 server in Notes 4.5," says Ferguson, "because I used much of the same code."

There's much that will be improved in future versions. Ferguson cites calendaring and scheduling as an example: Internet mail doesn't support Notes calendaring and scheduling. The Internet standards for calendaring are still under development, so right now, she says, there's no Internet equivalent for the Notes process of sending out a meeting notice and getting replies back that automatically update a calendar.

The limits on customizing Internet mail are generally related to server capabilities, according to Ferguson. "You can do all the visual customization in Notes, but you can't do things like run agents on the server." If you want use a vacation notification agent, for example, you must write it to run on the client and check messages added to the mail database by scheduled replication.

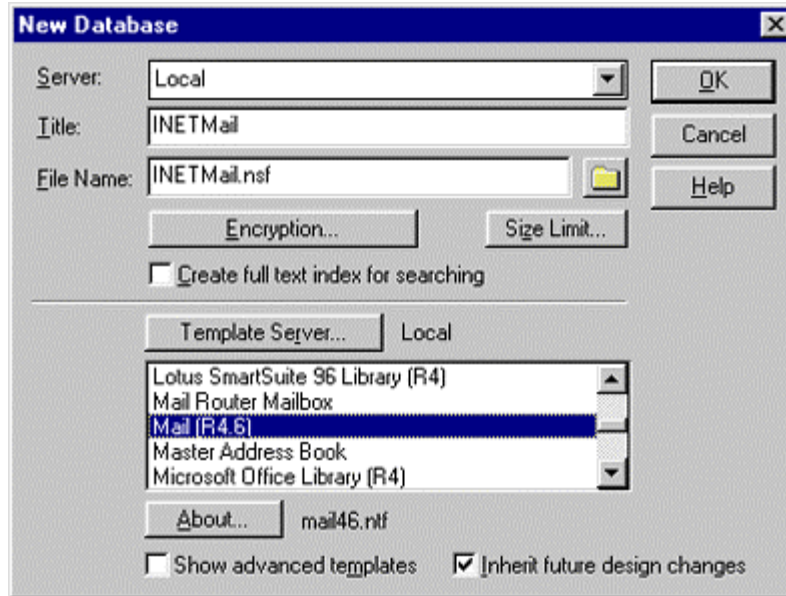
## **Setting up Notes to access Internet mail**

To set up access from Notes to an Internet mail account, you must first designate a local mail database (create it if it doesn't already exist) and create a Location document that selects either "Internet" or "Notes and Internet" as your mail system. You can only have one mail file specified per Location, but you can choose to use it for Notes mail, Internet mail, or for *both* Notes and Internet mail. You'll need to know your user name and password for the POP3 Internet mail server, and some technical details about its configuration, although the defaults will work in most cases.

### **First, designate a Mail database**

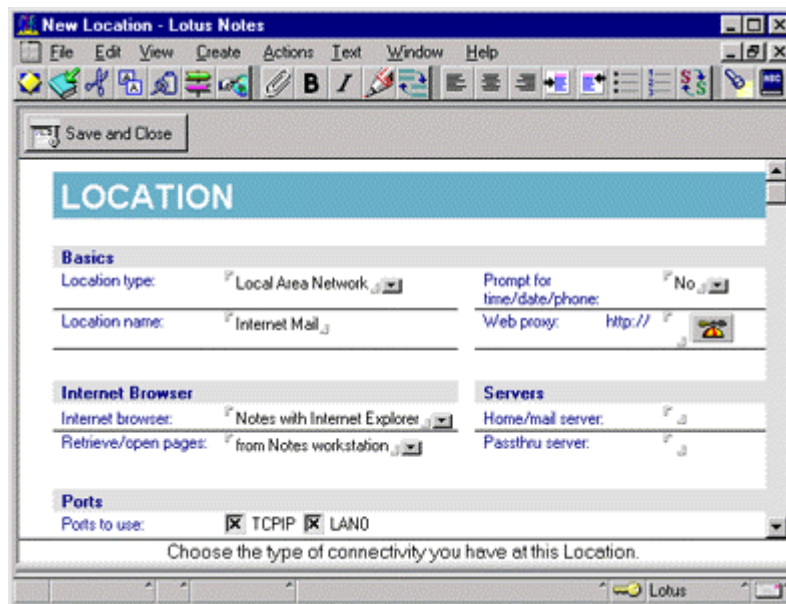
You may include Internet mail in an existing local replica of your Notes mail file, or store Internet messages in a separate local Notes mail file. If you decide to keep Internet messages separate, create a new database using the Notes 4.6 Mail template, mail46.ntf. To do this:

1. Choose File - Database - New.
2. In the New Database dialog, select the template called Mail (4.6) and enter a title and filename.
3. Click OK.



## Second, create a Location document

Setting Notes to work with Internet mail instead of Notes mail is done by switching Location documents. To create a Location document for Internet mail, open your Personal Address Book, then choose Create - Location. Notes will open a new Location form.



In the Basics section, fill in two fields:

1. Location type -- Click on the drop-down button and select "Local Area Network" (even if you make a dial-up connection to your Internet Service Provider (ISP), it looks like a network connection to Notes).
2. Location name -- Give the document a name that you associate with preparing and retrieving Internet mail.

The Ports section shows all the communications ports available on your workstation. To make the dial-up connection to your ISP, select the TCP port.

If the TCP port doesn't appear, you must enable it:

1. Choose File - Tools - User Preferences.
2. In the User Preferences dialog click the Ports icon, select the port you need in the scroll box, and check the Port Enabled box.
3. Click OK.
4. Save and reopen your Location document so the newly enabled port will appear.

In the Mail section, enter the name of the local database where you want Internet mail stored, and change the "Mail file location" to be "Local." Notice that the Mail System field is set to "Notes" by default. Click on the drop-down button and select "Internet" if you plan to use this mail database just for Internet mail, or select "Notes and Internet" if you plan to use it for both types of mail. A new Internet Mail section will then appear:

<b>Mail</b>	
Mail file:	<input type="text" value="INETMail.nsf"/>
Mail file location:	<input type="text" value="Local"/>
Mail system:	<input type="text" value="Internet"/>
<hr/>	
Recipient name type-ahead:	<input type="text" value="Personal Address Book Only"/>
Recipient name lookup:	<input type="text" value="Stop after first match"/>
Mail addressing:	<input type="text" value="Personal Address Book Only"/>
Transfer outgoing mail if:	<input type="text" value="messages pending"/>
<hr/>	
<b>Internet Mail</b>	
Send outgoing mail:	<input type="text" value="directly to Internet"/>
Internet mail address:	<input type="text" value="joe@doeremi.com"/>
Outgoing (SMTP) internet mail server:	<input type="text" value="smtp.doeremi.com"/>
Incoming internet mail server:	<input type="text" value="pop.doeremi.com"/>
Internet username:	<input type="text" value="jdoe"/>
Internet password:	
Leave mail on server:	<input type="text" value="Yes"/>
Use SSL:	<input type="text" value="No"/>
Port:	<input type="text" value="110"/>

- Send outgoing mail -- This specifies whether your outgoing Internet mail routes through your Domino server or directly to the Internet. The default is to send outgoing mail through your Domino server, which then uses the SMTP MTA to send the mail out to the Internet. If you select to send mail directly to the Internet, you must enter an Internet mail address and an outgoing SMTP mail server.
- Internet mail address -- This is the return address that will appear on messages you send. It needs to include your username and server address accessible from the Internet, so it may be different from your username on the system. For example, if your POP3 mail server is behind a firewall, your mail address will be different because mail cannot be sent directly to this machine from the Internet.

- Outgoing (SMTP) Internet mail server -- By convention, this is "smtp" plus the domain name of your ISP (for example, "smtp.netserve.com" or "smtp.progress.net"). If you have any doubts, check with your ISP.
- Incoming Internet mail server -- This is the name of your ISP's POP3 server. Like the SMTP server, by convention it is named pop.providertype.domain: "pop.netserve.com" or "pop.progress.net".)
- Internet username -- The username you enter to access your ISP's Internet mail server. (If your Internet account is on a Domino server, your username should be the same as the Short name field of your Person document in the server's Public Address Book.)
- Internet password -- Your password for the server. Notes hides this password. To enter it, click on the windowshade box. (If your ISP account is on a Domino server, your username should be the same as the HTTP password field of your Person document in the server's Public Address Book.)
- Use SSL -- If you know that your ISP uses SSL (Secure Sockets Layer) to transfer messages, click "Yes." (If the server uses a self-signed certificate, you will need to set Accept SSL site certificates to "Yes" in the Advanced section of this Location document.)
- Port -- Port 110 is the default port that Notes uses for POP3 mail. If you are connecting to the server via SSL, the default SSL port is 995. You should most likely use one of these settings. If you have any questions, please see your administrator.

The remaining fields in the Mail section set defaults for using the Personal Address Book and transferring outgoing messages.

In the Servers section you don't need to change the Home/mail server or Passthru server entries. These relate only to Notes, not to Internet mail.

To save the Location document, click "Save and Close."

### **Third, create a "No Connection" document**

If you are going to create Internet messages while disconnected from your Internet servers, create another Location document with the Location type set to "No connection." Give it a Location name, change the Mail file location to "Local," and set the Mail type to "Internet" or "Notes and Internet." Then, specify to send outgoing mail "directly to the Internet," fill in the other required fields in the Internet Mail section, and save the document. The first time you make this the active location, Notes will create an Outgoing Mail database, SMTP.Box, to hold outgoing messages until you connect to an SMTP server and transfer them.

## **Creating and saving Internet mail**

If you want to create a message to be sent to your Internet mail server, first make sure to select the Location document that specifies "Internet" or "Notes and Internet" as the Mail system, and that specifies to send outgoing mail "directly to the Internet." You can create a new mail message in any of the standard ways: in the database you designated for Internet mail, click the New Memo button, or choose Create - Memo. Or click on the mail icon in the status bar and select "Create memo." As you write the message, you should keep in mind the following:

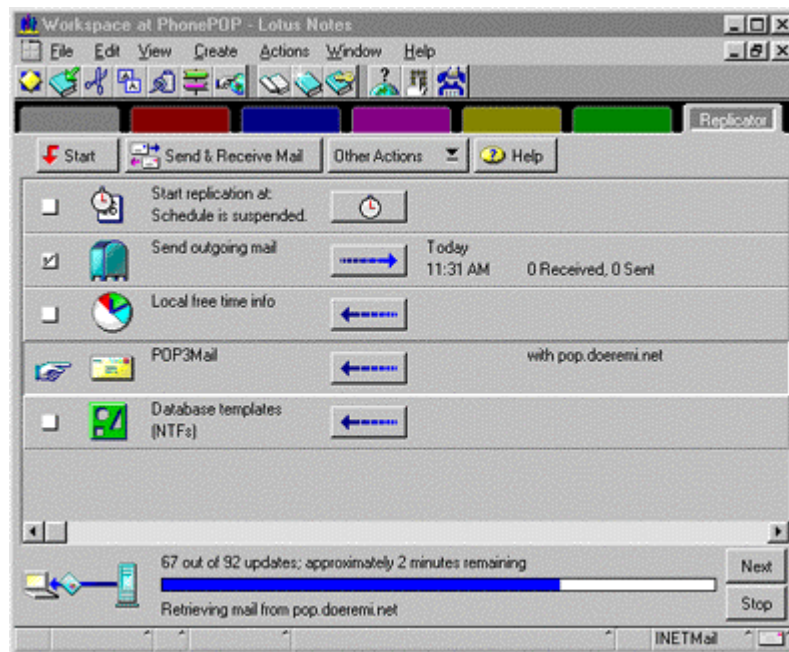
- Address -- The address you enter should be in the standard Internet format: "username@providertype.domain". You may use the recipient name lookup features of Personal Address Book or disable them in the Location document.
- From -- Notes will fill this field with the Internet mail address specified in the Location document in addition to your Notes username.
- Content -- The Internet mail protocols do not offer all the features of Notes for handling rich text and embedded graphics. If you use these features you should be aware that the recipient may see something different: text is stripped of any formatting (bold, italics, font size, and so on) and embedded graphics will be converted to attachments by Notes.

You may create Internet mail while you are disconnected from your Internet server by using the "No connection" document that specifies "Internet" or "Notes and Internet" as the Mail system, and that specifies to send outgoing mail "directly to the Internet." As you save messages, they are deposited in an outgoing SMTP mailbox. The next time you connect to your Internet server, you will be prompted to send them.

## Sending and receiving Internet mail

To exchange Internet mail:

1. Choose the Location document you created for the Internet.
2. Initiate the exchange, either by clicking on "Retrieve Mail" on the action bar of your Internet mail database, or by clicking on "Send and Receive Mail" in the Replicator pane. (You can also use the Mail icon on the status bar at the bottom of the Notes workspace.)



3. Incoming messages appear in your mail file's Inbox, a view that's familiar to every user of Notes mail. You may set up a replication schedule for exchanging Internet mail using the Replication section of the Location document.

