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Chapter 1

Introduction to IMAP

IMAP is a protocol that serves as a way to read mail on a remote host. IMAP is the successor to POP3 – IMAP, as you will find out, has many advantages over POP3.

With the previous PA Dept. VMS e-mail system, there were basically two ways to read your email: telnet to the server and read it directly from the server or use POP3 to download your mail to a local e-mail client. There are advantages and disadvantages to each. The first way was preferred by many because their mail was stored in a central location – they could telnet in from anywhere and see the same INBOX waiting for them. Some disliked this method because they were reluctant or did not have the time to learn VMS mail commands. The second method was also popular for a different reason, mainly ease of use. Netscape or any other e-mail client supporting POP3 could be used to read your e-mail. The major disadvantage was that with POP3, e-mail no longer was in a central location and using the email server from multiple locations causes mail to be retained on several different computers. This leaves the user’s e-mail scattered in bits and pieces on every computer they use.

With the new system, IMAP and Pine, we have combined all the advantages of the old methods and combined them into two new methods! First we have upgraded the local client protocol from POP3 to IMAP and installed an easy to use, yet powerful, e-mail reader system on pads1.

IMAP shows significant improvement over POP3 in many arenas. The major improvement is that multiple local e-mail clients will all see the same INBOX. IMAP achieves this by keeping all e-mail on the server. When the client program (such as Netscape) wishes to view a message, IMAP gives it the text and Netscape shows it to you. The IMAP server still controls the message – the e-mail client simply asks the server to manipulate the folder. In essence you are controlling your INBOX (and other folders) remotely using IMAP.

As you may have guessed, IMAP allows you to control many folders at once – each folder residing on the server and controlled remotely. We will get more into this later.

The second method of retrieving e-mail is via telnet to the mail server. We have enhanced this method also. Now you can use Pine on the server. Pine replaces VMS and UNIX “mail” with a crisp easy to use interface and powerful features (such as IMAP). Note however that if you still wish to use UNIX mail, you can do so. The remainder of this document will describe how to use Pine on the mail server and how to use Pine locally with IMAP to retrieve email.
Chapter 2

Configuring Pine

This chapter will guide you through the details of Pine configuration and how to set it up to co-exist with IMAP. If you are considering skipping this chapter... PLEASE DO NOT!

2.1 Configuring *pads* Pine with IMAP

*Note: To correctly get Pine working on *pads* follow the instructions in this section carefully.*

Pine has the ability to co-exist with IMAP (and thus remote e-mail clients). To get this functionality working you must do several things to your file structure and Pine itself.

2.1.1 Setting up your filesystem

The main directory in your home directory that stores email is the “mail” folder. This folder must be the main folder for all e-mail. If you would like other UNIX email clients to access your mail and they use a different directory, create a symbolic link from the directory it uses to “mail”. For instance, dtmail stores files in the “Mail” directory; you would create a symbolic link like this:

```bash
  cd
  ln -s Mail ./mail
```

*Note: The e-mail client must store e-mail in the standard UNIX e-mail file format for this to work.*

You also must create an *mbox* file in your home directory with permissions 600. It is safer for this file to physically reside in the “mail” directory – thus create a symbolic link to it there. Do this with the following commands:

```bash
  cd ~/mail
  touch mbox
  chmod 600 mbox
  cd
  ln -s ./mail/mbox .
```

Now your filesystem is ready for Pine and IMAP!
2.1.2 Setting up Pine

There are two simple configuration settings to change in Pine so that it works better with IMAP. If you are new to Pine and have never started it before, then these will already be set for you from the system defaults. If not then keep reading...

One default is to not move mail out of the /var/mail/<user> file into your home directory. But we need Pine to move mail to your mbox. Do this my selecting S or Setup from the Pine main menu, then select C for config. Change the fifth item, inbox-path, to read inbox (as shown in the image below):

```
     PINE 4.05  SETUP CONFIGURATION       Folder: INBOX  84 Messages

    personal-name    = <No Value Set; using "Nicholas Kreucher">
    user-domain      = <No Value Set; using "mail.fsu.edu">
    smtp-server      = <No Value Set>
    nntp-server      = <No Value Set; using "news.fsu.edu">
    inbox-path       = Inbox
    incoming-archive-folders = <No Value Set>
    pruned-folders   = <No Value Set>
    default-fcc      = <No Value Set; using "sent-mail">
    default-saved-msg-folder = <No Value Set; using "saved-messages">
    postponed-folder = <No Value Set; using "postponed msgs">
    read-message-folder = <No Value Set>
    form-letter-folder = <No Value Set>
    signature-file   = <No Value Set; using "/home5/kreucher/.sig">

    feature-list =
      Set       Feature Name
      [ ] allow-talk
      [ ] assume-slow-link
      [ ] auto-move-read-msgs
```

Highlight the inbox-path and press C for Change Value. Type in inbox and press enter.

Another default is not to display multiple INBOX folders (ie for remote hosts). In the same configuration screen as above, scroll down a few pages and mark the enable-incoming-folders option (using the spacebar) as shown below:
Then press E to Exit Setup, save and restart Pine.

2.2 Configuring a Local Pine for Remote IMAP Access

You can also use a local copy of Pine (on Linux, *cygnus/pavo*, PC Pine etc) and remotely access your mail folders (INBOX etc) via IMAP.

Pine has the ability to access multiple INBOXes; each INBOX is where new mail from the system is stored. For example, you could have a local INBOX for your machine (eg *pavo*) and then a remote INBOX from the PA mail server. The collection of INBOXes are kept in a folder collection called Incoming-Folders. This can be accessed by pressing L for Folder List on the main menu. Remote folders can be added as a folder collection also. For example, Pine running on *pavo* with a remote INBOX and remote folder connection to the PA mail server, would have a Folder Listing like this:
2.2.1 Configuring a remote INBOX

The first step is to configure a remote INBOX to the PA mail server. To do this you first must go to the folder collections listing my pressing L for Folder Listing on the main menu. Once here select the Incoming Folders (which should be the first folder collection). In the following screen you need to press A to Add a folder. Next, Pine will ask a series of questions in the status bar, of which can be answered like the following for the PA mail server:

**Server:** mail.pa.msue.edu

**Name of server to connect added folder:** mail.pa.msue.edu

**Folder:** \*INBOX\*

**Folder on "mail.pa.msue.edu" to add:** INBOX

**Nickname:** pa-mail

**Nickname for folder "INBOX":** pa-mail

You should use your login name and password for the PA mail system when asked.

You will now be able to see a second folder in the Incoming collection: pa-mail (or whatever you configured the nickname to be). Selecting this and pressing enter will show the INBOX on the PA mail server. Note that it may ask you for your username and password again – this is normal.

2.2.2 Configuring a remote IMAP folder

Next is to configure a remote folder collection for the PA mail server. First from the main menu press S for Setup. In the list to the bottom of the screen select L for collectionList. Then press A for Add Cltn (CoLlecTioN). Fill in the fields as shows below:
Nickname: pa-mail

Server: mail.pa.msu.edu

Path: mail

```
PINE 4.05  FOLDER COLLECTION ADD  <Incoming-Folders> pa-mail  85 Mbs
Nickname : pa-mail
Server    : mail.pa.msu.edu
Path      : mail
View      :

Fill in the fields above to create a new Folder Collection.
Use "G" command to get help specific help for each item, and
use "X" when finished.
```

After you enter the server it may ask for a username and password in the status bar – this is
normal and you should use your PA mail server username and password. Then do a Ctrl-X to eXit
and save which will bring you back to the configuration of folder collections. You must now do an
E to Exit Setup to return to the main menu.

Now at the main menu press L or select Folder List and then select your new remote folder,
pa-mail (or whatever you configured the nickname to be). Now you can access your IMAP folders
on the PA mail server. Remember that the INBOX for the PA mail server is contained in the
Incoming Folders folder collection.
Chapter 3

Using Pine

This chapter will explain the basics of Pine and how to use this IMAP e-mail client. To start Pine from pads1, type: pine. If you need help accessing pads1 or need an account, please email helpdesk@pa.msu.edu. The first time you launch Pine you will receive a welcome screen and an opportunity to retrieve a document about Pine; you can safely press E to Exit the welcome screen.

3.1 Pine Basics

Pine has an easy to use interface. Below is a screen capture of the main menu.

```
PINE 4.05  MAIN MENU                      Folder: INBOX 84 Messages

?   HELP   - Get help using Pine
C   COMPOSE MESSAGE - Compose and send/post a message
I   MESSAGE INDEX - View messages in current folder
L   FOLDER LIST   - Select a folder OR news group to view
A   ADDRESS BOOK  - Update address book
S   SETUP         - Configure Pine Options
Q   QUIT          - Leave the Pine program
```

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As you can see, the menu items explain themselves. In pine there is always the top bar which displays information about the current folder (ie INBOX 84 Messages) and a status bar at the bottom. In the image above, the status bar is blank; if Pine wanted to give you information about something it would display it in the blank line between the Copyright and the command list (Help etc.).
3.1.1 Composing Messages

In Pine, composing messages could not be easier. You simply press C (or use the arrows to move the menu selector bar to Compose and press enter). The message composition screen displays as seen below:

```
<table>
<thead>
<tr>
<th>To</th>
<th>Cc</th>
<th>Attachment</th>
<th>Subject</th>
</tr>
</thead>
</table>

----- Message Text -----
```

Simply fill in the fields and type your message. When you are ready to send the message, use Ctrl-X. Refer to the command list on the bottom of the screen for additional options. Pine also has an address book; use Ctrl-T to access the address book and select recipients from within the message composition window.

3.1.2 Reading Messages (INBOX)

From the main menu, press I or select Message Index to see a listing of messages in the current folder. The Message Index for INBOX is displayed below:
To the left of each message Pine will display a single letter flag. The last message in the image above has a D flag. This means the message is marked for deletion. Another common flag is A, which means that you have sent a reply (Answer) to the message. Simply press enter to display a message. Also notice the additional command on the bottom of the screen.

Once you are reading a message, you can do several things such as prYnt, Reply, Delete, Forward etc. from the choices at the bottom of the screen:

Hi:

It was recently reported to me that a hacker or hackers working from computers broken into at New Mexico State University sent out series of probes to machines at numerous sites across the country. These probes tested for machines running versions of the 'inapd' IMAP4 E-mail daemon which are vulnerable to a buffer-overflow-type security breach (see CERT Advisory CA-98,05 at "http://www.cert.org/advisories/CA-98.09.inapd.html" for details).

Notice in the screenshot above, the status line is notifying you that new mail has arrived. This depicts another useful feature of Pine – the status line will give you important messages regarding
your e-mail.

3.2 Advanced Pine Features

- The Pine address book
- Folders and Folder Collections
- The spell checker
- Using an alternative editor