A very primitive network with no management, built with auto-dialers phoning one computer from another. Characterized by addresses of the form place1!place2!user. The UUCP network can be used for commercial purposes provided that none of the sites through which the message is routed objects to that.

USENET:

Not a network at all, but a layer of software built on top of UUCP and Internet.

BITNET:

An IBM-based network linking primarily educational sites. Digital users can send to BITNET as if it were part of internet, but BITNET users need special instructions for reversing the process. BITNET cannot be used for commercial purposes.

Fidonet:

A network of personal computers. I am unsure of the status of using Fidonet for commercial purposes, nor am I sure of its efficacy.

DOMAINS AND DOMAIN ADDRESSING

There is a particular network called "the Internet;" it is somewhat related to what used to be "the ARPAnet." The Internet style of addressing is flexible enough that people use it for addressing other networks as well, with the result that it is quite difficult to look at an address and tell just what network it is likely to traverse. But the phrase "Internet address" does not mean "mail address of some computer on the Internet" but rather "mail address in the style used by the Internet." Terminology is even further confused because the word "address" means one thing to people who build networks and something entirely different to people who use them. In this file an "address" is something like "mike@decwrl.dec.com" and not "192.1.24.177" (which is what network engineers would call an "internet address").

The Internet naming scheme uses hierarchical domains, which despite their title are just a bookkeeping trick. It doesn't really matter whether you say NODE: :USER or USER@NODE, but what happens when you connect two companies' networks together and they both have a node ANCHOR?? You must, somehow, specify which ANCHOR you mean. You could say ANCHOR.DEC::USER or DEC.ANCHOR::USER or USER@ANCHOR.DEC or USER@DEC.ANCHOR. The Internet convention is to say USER@ANCHOR.DEC, with the owner (DEC) after the name (ANCHOR).

But there could be several different organizations named DEC. You could have Digital Equipment Corporation or Down East College or Disabled Education Committee. The technique that the Internet scheme uses to resolve conflicts like this is to have hierarchical domains. A normal domain isn't DEC or STANFORD, but DEC.COM (commercial) and STANFORD.EDU (educational). These domains can be further divided into ZK3.DEC.COM or CS.STANFORD.EDU. This doesn't resolve conflicts completely, though: both Central Michigan University and Carnegie-Mellon University could claim to be CMU.EDU. The rule is that the owner of the EDU domain gets to decide, just as the owner of the CMU.EDU gets to decide whether the Electrical Engineering department or the Elementary Education department gets subdomain EE.CMU.EDU.

The domain scheme, while not perfect, is completely extensible. If you have two addresses that can potentially conflict, you can suffix some domain to the end of them, thereby making, say, decwrl.UUCP be somehow different from DECWRL.ENET.

DECWRL's entire mail system is organized according to Internet domains, and in fact we handle all mail internally as if it were Internet mail. Incoming mail is converted into Internet mail, and then routed to the appropriate domain; if that domain requires some conversion, then the mail is converted to the requirements of the outbound domain as it passes through the gateway. For example, they put Easynet mail into the domain ENE.

On a side note, the recent book The Cuckoo's Egg provides some interesting information (in the form of a story, however) on a Tymnet hacker. Remember that he was into BIG things, and hence he was cracked down upon. If you keep a low profile, networks should provide a good access method.

If you can find a system that is connected to the Internet that you can get on from Tymnet, you are doing well.

Username@f<node #>.n<net #>.z<zone #>.ifna.org

In other words, if I wanted to mail to Silicon Swindler at 1:135/5, the address would be Silicon_Swindler@f5.n135.z1.ifna.org and, provided that your mailer knows the .ifna.org domain, it should get through alright. Apparently, as of the writing of this article, they have implemented a new gateway name called fidonet.org which should work in place of ifna.org in all routings. If your mailer does not know either of these domains, use the above routing but replace the first "@" with a "%" and then afterwards, use either of the following mailers after the "@": CS.ORST.EDU or K9.CS.ORST.EDU (i.e. username%f<node #>.n<net #>.z<zone #>.fidonet.org@CS.ORST.EDU [or replace CS.ORST.EDU with K9.CS.ORST.EDU]).

The following is a list compiled by Bill Fenner (WCF@PSUECL.BITNET) that was posted on INFONETS DIGEST which lists a number of FIDONET gateways:

Net	Node	Node Name
104	56	milehi.ifna.org
105	55	casper.ifna.org