MA194 – Using Unix

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Class #5 - Tuesday, January 30, 1996 – Week 3

In-class hotline: (606) 323–3681

Community Colleges: Tues 9:00-9:50 & 10:00-10:50 PM EST
UK/Lexington: Wed & Fri 9:00 PM EST, TCI Channel 16

URL: `http://www.ms.uky.edu/~ma194`
Mailing list: ma194-class@ms.uky.edu
To join the mailing list, send a note to ma194@ms.uky.edu

Tonight's Topics

- Homework 2 – Account information

- Network structure and routing

- Machine names vs. numbers

- Some networking commands

Routing

– Sample networks – The ping command
– The traceroute command

Machine names vs. numbers

– Nameservers
– The nslookup command
– The WHOIS command

Using the network

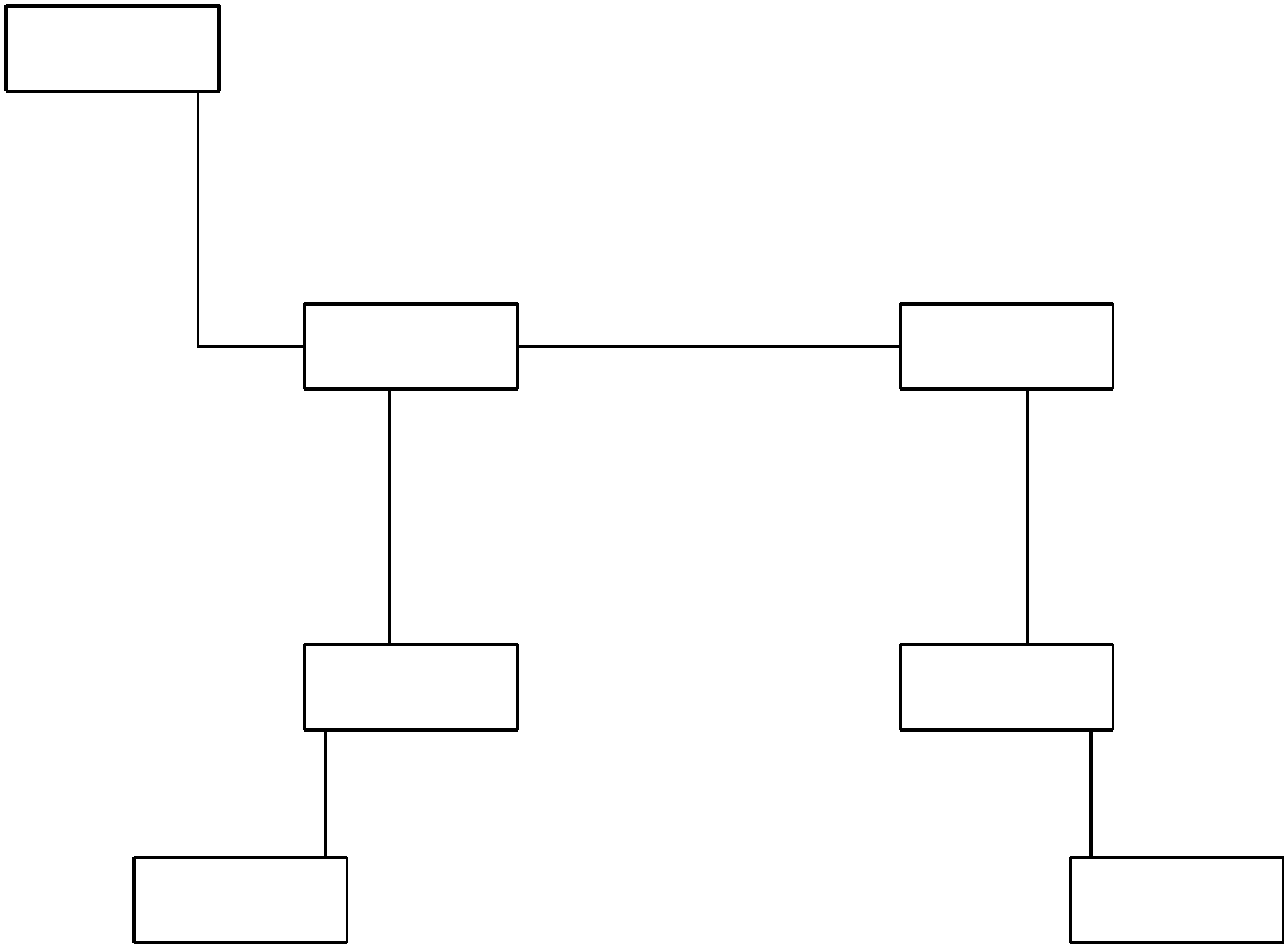
– telnet/rlogin
– FTP
– The finger command

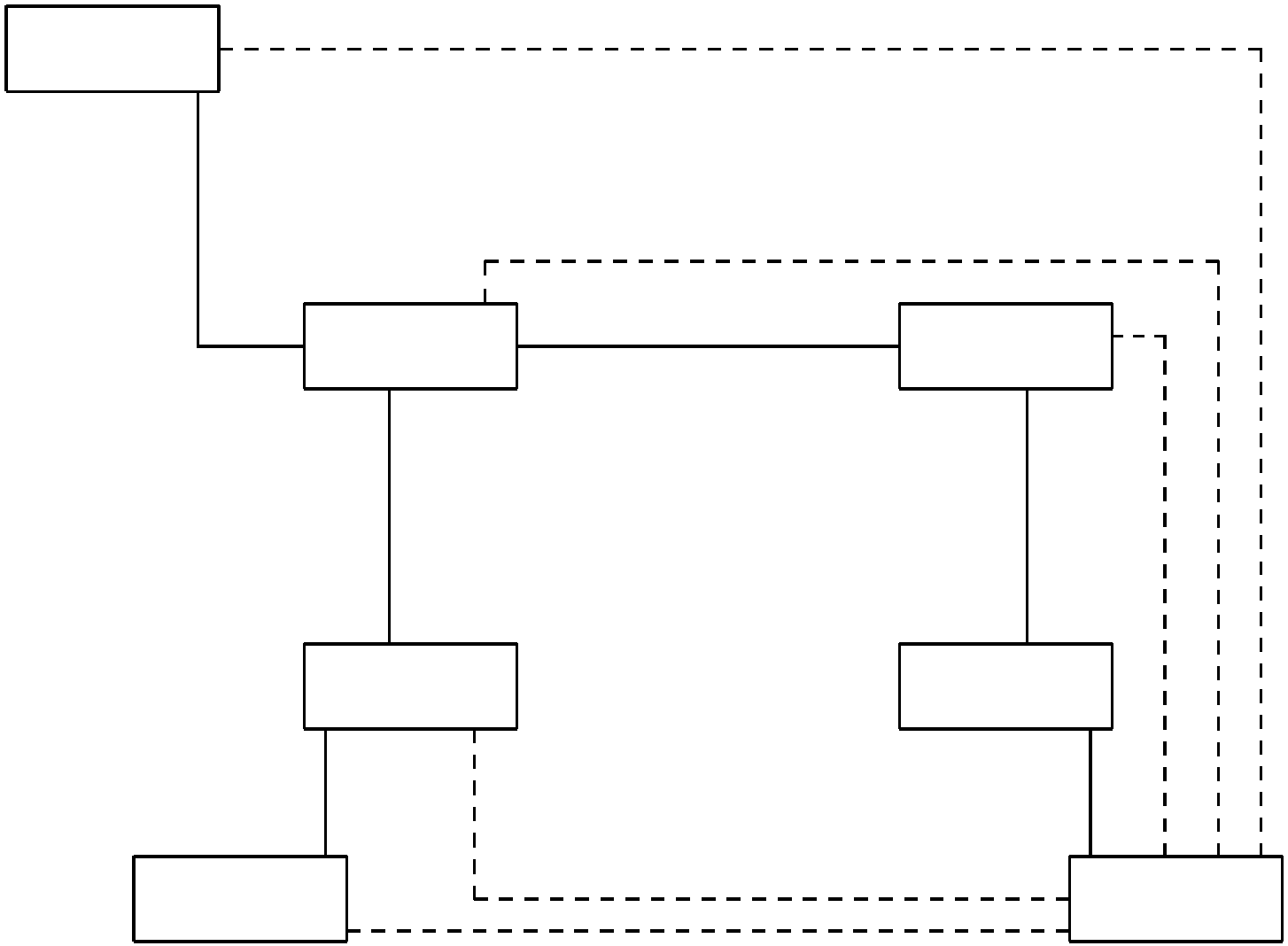
Homework 3 - ‘Find’ these sites

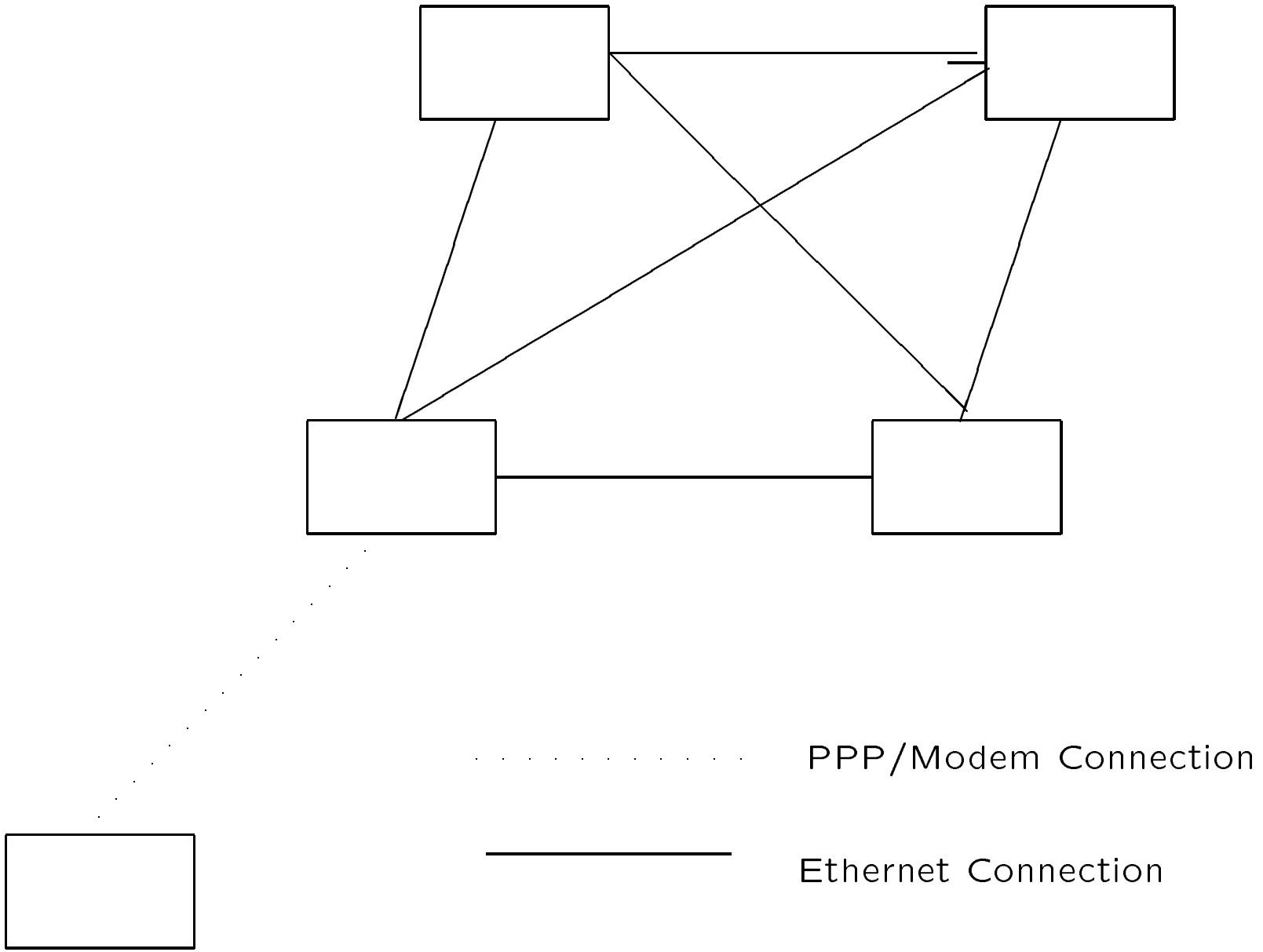
- pigpen.ate.uky.edu
- ukcc.uky.edu
- ftp.cc.gatech.edu
- whitehouse.gov
- singapura.singnet.com.sg
- saga-ed.go.jp

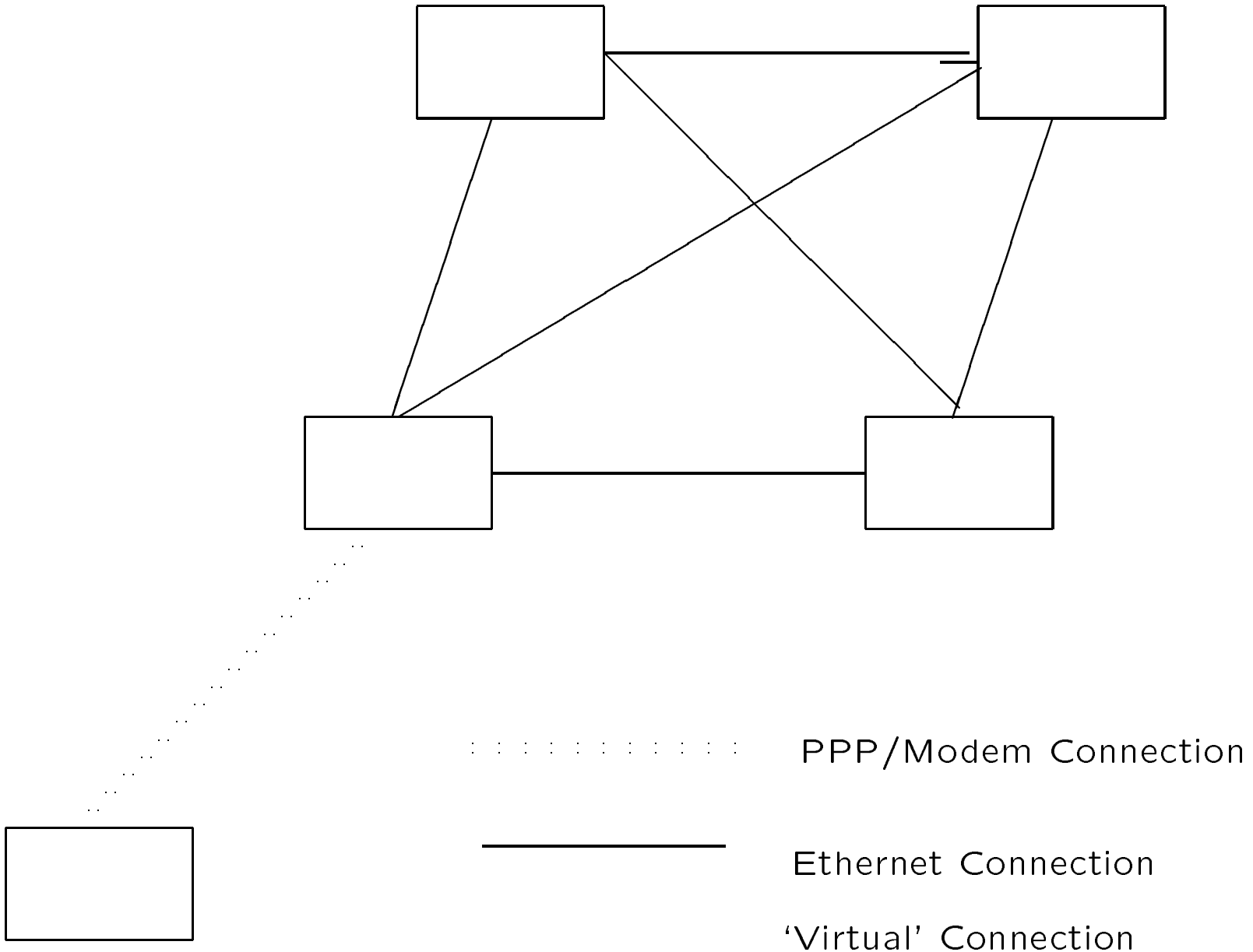
Find the ‘most distant’ site and show it’s route from your machine

Email your answers to ma194@ms.uky.edu with the subject:
HM3 – Networking






PPP/Modem Connection
Ethernet Connection


PPP/Modem Connection
Ethernet Connection
'Virtual' Connection

An example of ping

```
franklin:~$ ping test.uky.edu
PING test.uky.edu (128.163.1.6): 56 data bytes
64 bytes from 128.163.1.6: icmp_seq=0 ttl=253 time=6.9 ms
64 bytes from 128.163.1.6: icmp_seq=1 ttl=253 time=3.3 ms

--- ncc.uky.edu ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 3.3/5.1/6.9 ms
franklin:~$ ping mozart.ms.uky.edu
PING mozart.ms.uky.edu (128.163.128.127): 56 data bytes

--- mozart.ms.uky.edu ping statistics ---
2 packets transmitted, 0 packets received, 100% packet loss
```

An example of traceroute

```
traceroute to hgatenl.hobby.nl (193.78.42.1), 30 hops max, 40 byte pa
 1  ms-uky-gw.ms.uky.edu (128.163.128.1)  3 ms  3 ms  4 ms
 2  uky-mcv-59-1.net.uky.edu (128.163.55.4)  5 ms  5 ms  5 ms
 3  sura2uky-pks2-1-2.net.uky.edu (128.163.11.9)  8 ms  5 ms  12 ms
 4  lex1-uky-c3mb.sura.net (192.221.9.17)  10 ms  11 ms  12 ms
 5  wvnet-lex1-c3mb.sura.net (192.221.9.6)  301 ms  226 ms  312 ms
 6  cpk2-wvnet-c3mb.sura.net (128.167.19.1)  202 ms  97 ms  85 ms
 7  cpk5-cpk-cf.sura.net (128.167.252.5)  95 ms  75 ms  83 ms
 8  mae_east1-cpk10-c3.sura.net (192.221.64.82)  83 ms  88 ms  76 ms
 9  Vienna2.VA.US.EU.net (192.41.177.120)  86 ms  81 ms  80 ms
10  Amsterdam5.NL.EU.net (134.222.228.17)  175 ms  361 ms  158 ms
11  Amsterdam.NL.NL.net (134.222.18.2)  182 ms  184 ms  174 ms
12  annex01.NL.net (193.78.240.65)  180 ms  190 ms  177 ms
13  hgatenl.hobby.nl (193.78.42.1)  328 ms  319 ms  300 ms
```

The finger command

```
franklin:~$ finger chaney@test.uky.edu
[test.uky.edu]
Login name: dan                         In real life: Dan Chaney
Directory: /home/usr/dan                Shell: /bin/csh
Last login Mon Jan 15 16:11 on ttyp9 from 128.163.132.106
Unread mail since Mon Jan 15 08:52:50 1995
No Plan.
```

```
franklin:~$ finger @t5.mscf.uky.edu
[t5.mscf.uky.edu]
Login    Name                 Tty  Idle  Login Time
chaney   Daniel Chaney         p2    1d  Jan 20 16:22
chaney   Daniel Chaney         r3    28  Jan 18 16:26
krump    Chase Krumpelman     qe  3:16  Jan 18 14:32
krump    Chase Krumpelman     r6    2d  Jan 18 14:43
kryscio  Richard Kryscio      qb  5:25  Jan 18 13:50
ma193    MA193 account        pe    28  Jan 19 13:48
martin   John Martin          q8  7:48  Jan  7 12:54
mike     Mike McKenna         q0  4:16  Jan 14 18:49
paul     Paul Eakin           q2    7d  Jan 13 14:21
rbowen   Richard Bowen         p0  3:45  Jan 21 12:54
stockb   Richard Stockbridge   pa    1d  Jan 18 10:03
toddc    Todd Caldwell        pd    1d  Jan 20 09:53
vgorb    Vassily Gorbounov    p1     4  Jan  5 14:09
```

A simple nslookup command

```
Default Server:  t2.mscf.uky.edu
Address:  128.163.132.102

> franklin.ate.uky.edu
Server:  t2.mscf.uky.edu
Address:  128.163.132.102

Name:    franklin.ate.uky.edu
Address:  128.163.130.15
```

The nslookup command

```
t2.mscf.uky.edu% nslookup
Default Server:  t2.mscf.uky.edu
Address:  128.163.132.102

> ftp.ms.uky.edu
Server:  t2.mscf.uky.edu
Address:  128.163.132.102

Name:    t8.mscf.uky.edu
Address:  128.163.132.108
Aliases:  ftp.ms.uky.edu

>
```

An example of WHOIS

```
Dan Chaney's Research Extension (DANS-DOM)
   715 Patterson Office Tower
   Univeristy of Kentucky Campus
   Lexington, KY 40506-0027

   Domain Name: DANS.COM

   Administrative Contact, Technical Contact, Zone Contact:
      Chaney, Daniel  (CD53)  chaney@MS.UKY.EDU
      (606) 257-2150

   Record last updated on 26-Jan-95.
   Record created on 05-Dec-93.
```

Domain servers in listed order:

NCC.UKY.EDU	128.163.1.6
MOZART.MS.UKY.EDU	128.163.128.127