Networking Toolbox
• Internet domain name and network number directory service

> whois www.google.com

> whois www.washington.edu
• You know an IP, would like to know the DNS name

• You know a DNS name, would like to know all registered IPs and aliases

> nslookup google.com

> nslookup attu.cs.washington.edu
Lecture 1
Basic Skills

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Grid Summer Workshop
June 21-25, 2004
• A port number indicates which program to talk to on a computer.

• Some port numbers are standard:
  • HTTP (web): port 80
  • SMTP (mail): port 25
  • Ping: port 7

• Some port numbers are assigned dynamically
• Netstat can answer the question: is a program running on a port on the local computer.

```bash
netstat --protocol=inet -l
```

```bash
tcp  0 0 *:finger  *:* LISTEN
```

• -l meant “listening for connections”. Look for active connections:

```bash
netstat --protocol=inet | grep ssh
```

```bash
% netstat --protocol=inet | grep ssh
```
• Telnet isn’t just for remote access to a computer
• Telnet can tell you if some remote services are running correctly.
• Is ssh running?
  • Find ssh port number in /etc/services. It’s 22.
  • telnet <host> 22. Example:

  telnet beak.cs.wisc.edu 22
% telnet www.cs.wisc.edu 80

Trying 128.105.7.31...

Connected to www.cs.wisc.edu (128.105.7.31).

Escape character is '^[].

GET http://www.cs.wisc.edu/~roy/index.html

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN">

<html>