

# 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 I

# Basic Skills

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- 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.

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

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

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

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

```
% 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 '^]'.  
^C
```

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

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

```
<html>
```