# How Web Browsing and HTTP Works

# Web Browsing Example
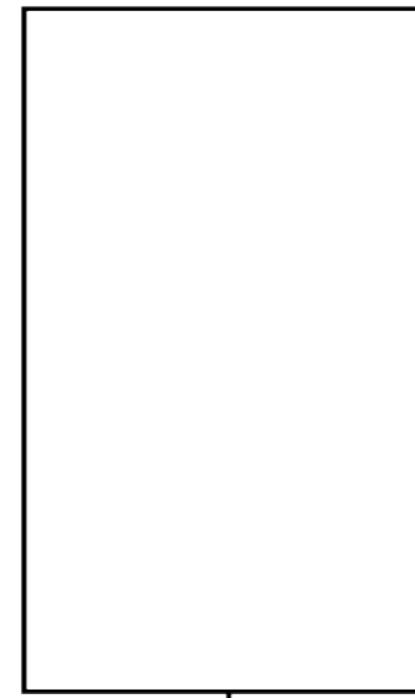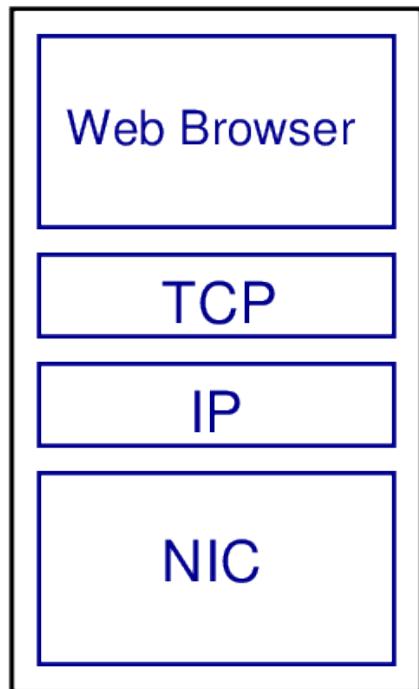
Computer A

Computer B

internet

# Web Browsing Example



Computer A
- Web Browser
- TCP
- IP
- NIC

Computer B
- Web Server
- TCP
- IP
- NIC

internet
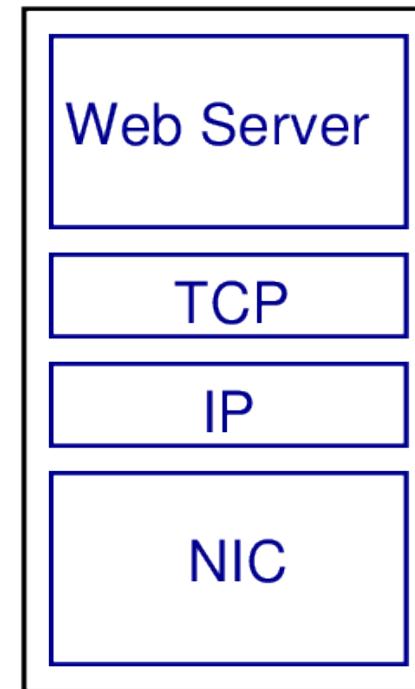
# Web Browsing Example

**Computer A**
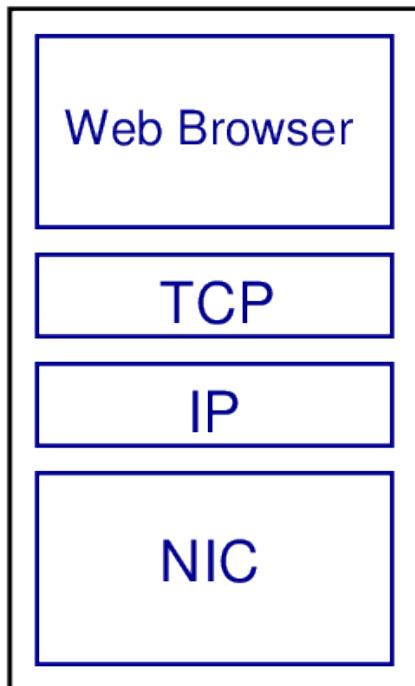
| Web Browser | Port: 50123 |
| TCP | Protocol: 6 |
| IP | IP: 1.1.1.1 |
| NIC | HW: a8:54:23:bd:09:1a |

**Computer B**

| Web Server | Port: 80 |
| TCP | Protocol: 6 |
| IP | IP: 2.2.2.2 |
| NIC | |

internet
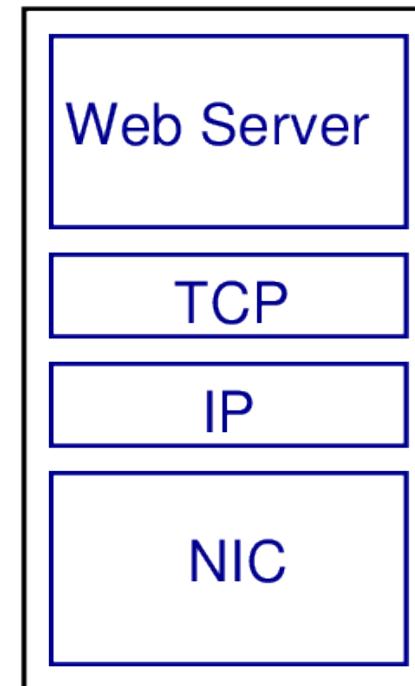
HW: 49:cb:23:01:4f:cd

# Web Browsing Example
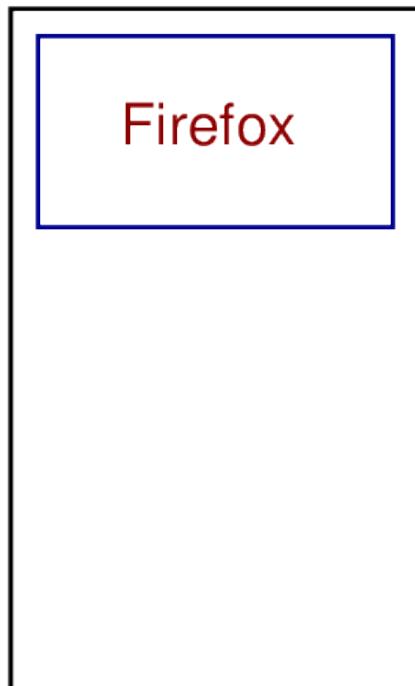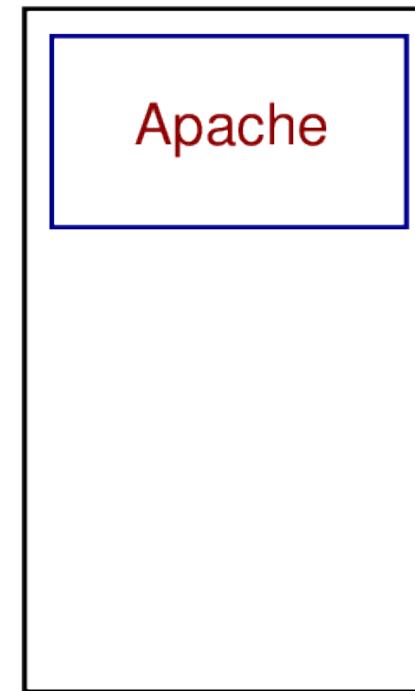
Computer A

Firefox

Computer B

Apache

internet

# Web Browsing Example

Computer A

Computer B

Firefox

Apache

Config: /etc/apache2/
Files: /var/www/

or: /var/www/html/

internet

# Web Browsing Example

**Computer A**

Firefox

**Computer B**

Apache

HTTP Request →

← HTTP Response

Config: /etc/apache2/
Files: /var/www/
   or: /var/www/html/

internet
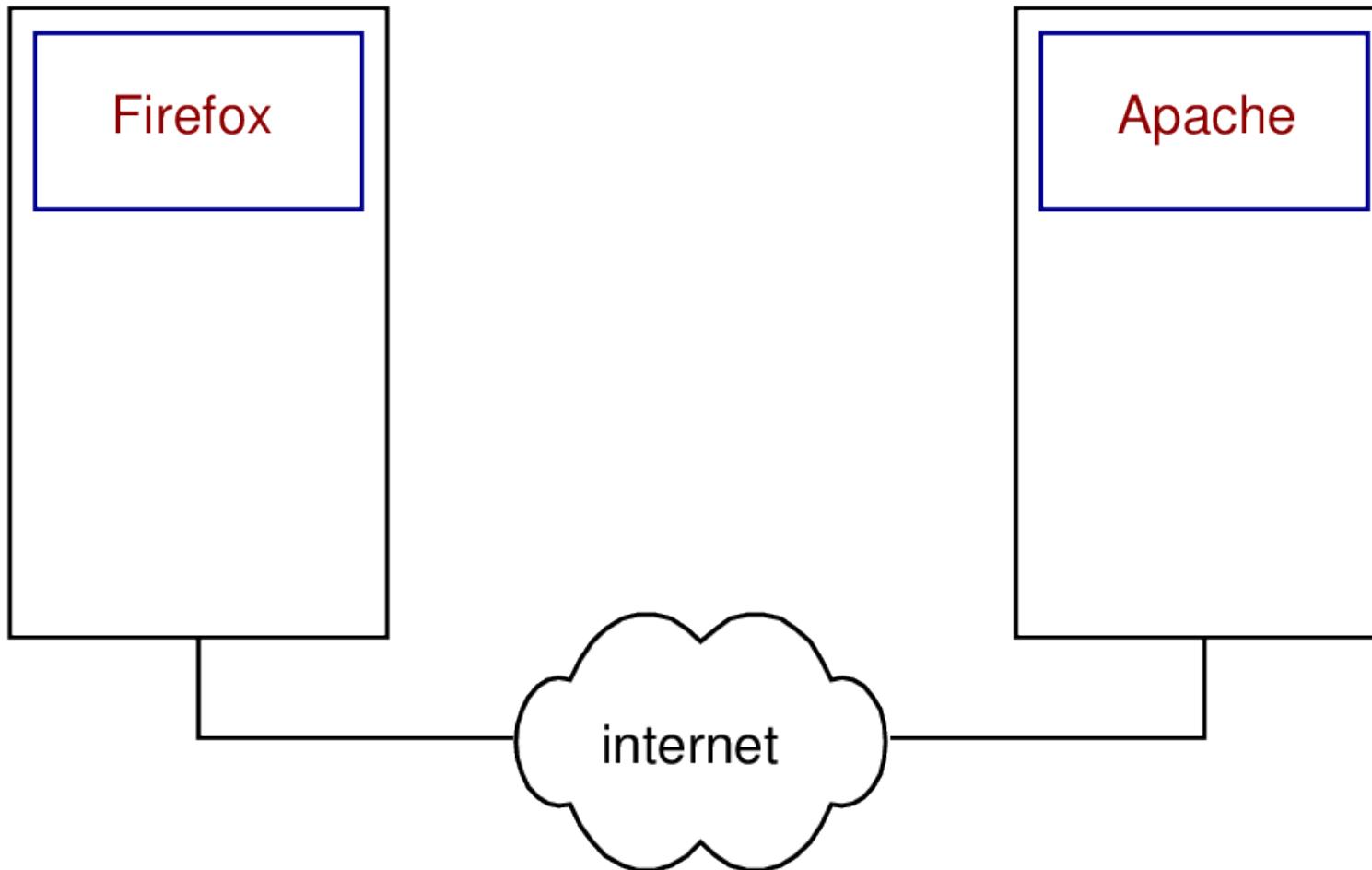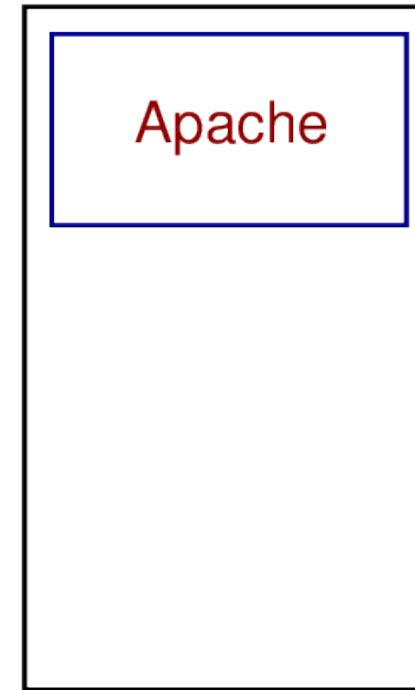
# Summary

- Web server listens on port 80
    - /etc/services lists the port numbers
- Web browser OS chooses own port
- HTTP: Request/Response protocol
    - Request types: GET, POST, …
    - Response codes: 200, 301, 304, 401, 404, …
    - TCP is protocol, number 6 (see /etc/protocols)
- Apache is common web server
    - Configuration in text files in /etc/apache2/
    - Main config file: /etc/apache2/sites-available/default
    - Web site is in /var/www/html/ (Apache 2.4)