Today

- Review of today’s homework
- Protocols used by HTTP
  - TCP/IP
  - DNS
- Semester Projects/Reports
- Break
- Web Workload Characterization
- For next week
Today’s Homework

- Apache – Multi-process (UNIX 1.X); Multi-threaded (Windows; UNIX 2.0)
- Microsoft IIS – Single process, event driven; Multi-threaded; Probably event-driven
- Flash – Asymmetric, multi-process event-driven (Hybrid)
- Zeus – Single process, event driven; process-driven?; Hybrid (multiple SPED processes)
- Others
  - TUX – Similar to AMPED
  - AOLServer – Single, multi-threaded processes
  - Sandstorm – Event driven, with optional threads
  - Boa – Event-driven
  - iPlanet (formerly Netscape) Enterprise – Multi-threaded
  - Jigsaw – Multi-threaded
Protocols Underlying HTTP

- Networking achieved through layers
  - Application layer
    - HTTP, DNS, Telnet, etc.
  - Transport layer
    - TCP, UDP
  - Network layer
    - IP
  - Link layer
    - Ethernet, ATM, PPP
Projects/Reports

• Think about a topic or idea (w.r.t. Web performance) you’d like to explore.

• Prepare a draft one-page (electronic) summary of the idea and what you plan to do.

• Should be a “research proposal” with a question to be answered, and a proposal on how to (start to) answer it.

• Can be a programming project or literature research.

• Should cite (some) existing literature.

• Non-binding! (for now)
Interlude

- Break
- Web Workload Characterization
- For Next Week
For Next Week

- HTTP: Read Chapters 6, 7, 8.
- Prepare and email draft topic interest.
- Continue to post to class discussion group.
- As always, bring something interesting to discuss, relating to Web performance (weekly).