Topics: DNS, Network Tools, Data Compression

Approach: Action, Presentation, Explaining

Main Ideas:

1. Admin
   Lab exam Monday - shell loop and slideshow
   Final Exam Friday May 1 7-9pm Barnum 8
   No more homework

2. Quick Review of the Internet
   a. Every computer is on a LAN (local area network)
      Every computer on a LAN has a hardware address
      Every computer on a LAN can send data to any other one
   b. The Internet is a WAN - (wide area network)
      The Internet is a connected collection of LANs
      The LANs are connected by routers
   c. IP (Internet Protocol) is the system for connecting LANs
      Every computer has an IP address (network#.computer#)
      Packet switching used to share wire fairly
      Delivery by dynamic routing (figure it out as you go)
   d. TCP (transmission control protocol)
      Large files: Break large files into numbered fragments
      Lost packets: require confirmation from receiver

3. DNS - Names for IP numbers
   a. People are better at remembering names
   b. DNS (Domain Name System) attaches names to IP numbers
   c. DNS servers are the 411 of the Internet

4. Unix Tools to Learn about your Network
   a. hostname, ifconfig, dig
   b. traceroute, ping, route, arp

5. Data Compression
   a. Sending Images - fax
   b. Compressing Data
      music, text, images
   c. How Fax Works

Each dorm has its own local network.
Router R1 is connected to both networks.
Router R2 is connected to network 2 and another network

Apr 21, 2009 13:44