Introduction to the Internet and Data Networking

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Goals of the Course

- **Week 1:** Gain a basic understanding of how the Internet was formed.
- **Week 2:** Understand the following networking concepts: LAN/WAN, Seven Layer OSI Model, TCP/IP.
- **Week 3:** Gather an overview of the various core technologies of Data Networking
- **Week 4:** Understand what companies, agencies, and organizations are helping to build the Internet today.
- **Week 5:** Have an ability to discuss the pros/cons of the Internet and why it will change the way we work, live, play, and learn.

Suggested Readings

- **"Networking Explained"**
  by Michael A. Gallo, William M. Hancock (Paperback)
  Amazon.com: $35.96
  BarnesandNoble.com: $44.95

- **"CCNA: Cisco Certified Network Associate Study Guide"**
  by Todd Lammle (or anything from Sybex Press)
- **"CISCO Certification: Bridges, Routers & Switches for CCIEs"**
  by Andrew Bruce Caslow
- "**CCIE Professional Development: Routing TCP/IP"**
  by Jeff Doyle

Definition of "Internet"

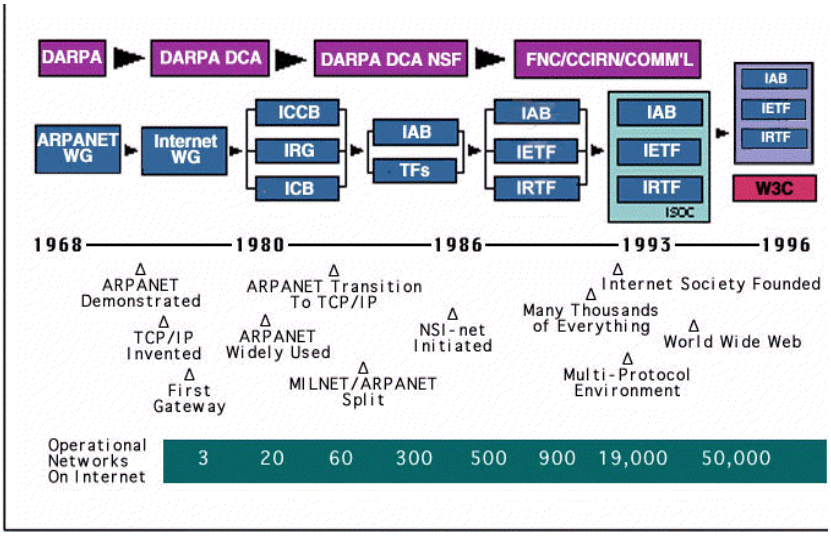
- **On October 24, 1995, FNC Resolution:**
  - "Internet" refers to the global information system that --

    (i) is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons;

    (ii) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP-compatible protocols; and

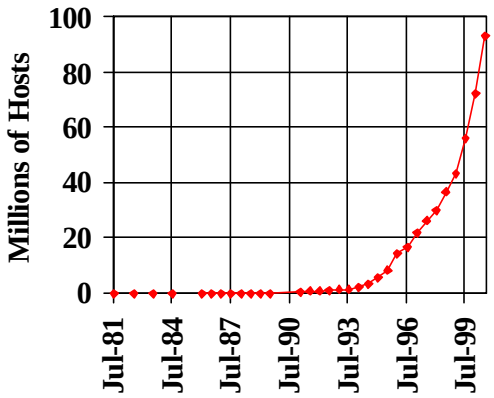
    (iii) provides, uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein."

Timeline of the Internet

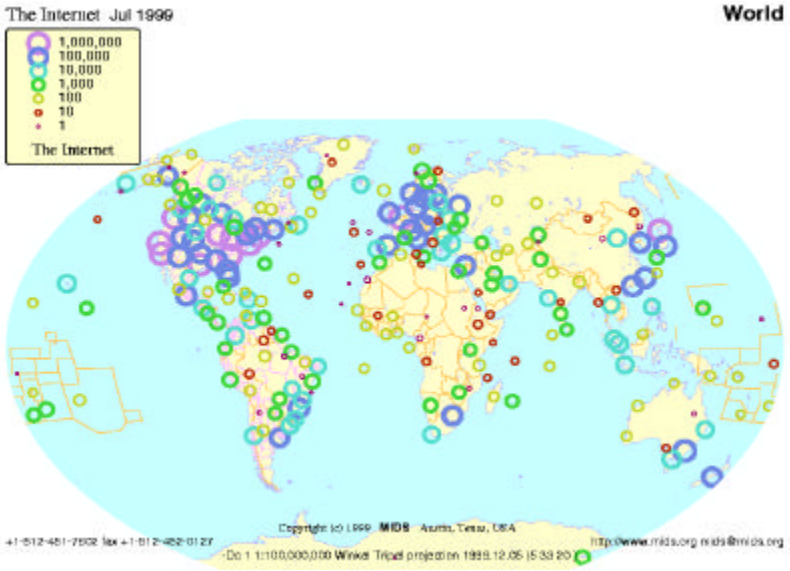


Explosive Growth of the Internet Almost Doubles (~1.5x) every Year.

Time vs. Internet Hosts



Number of Hosts

- Jul 00 93,047,785
- Jan 00 72,398,092
- Jul 99 56,218,000
- Jan 99 43,230,000
- …
- Jan 93 1,313,000
- …
- Aug 81 213

Internet Users in the World