Network Centric World
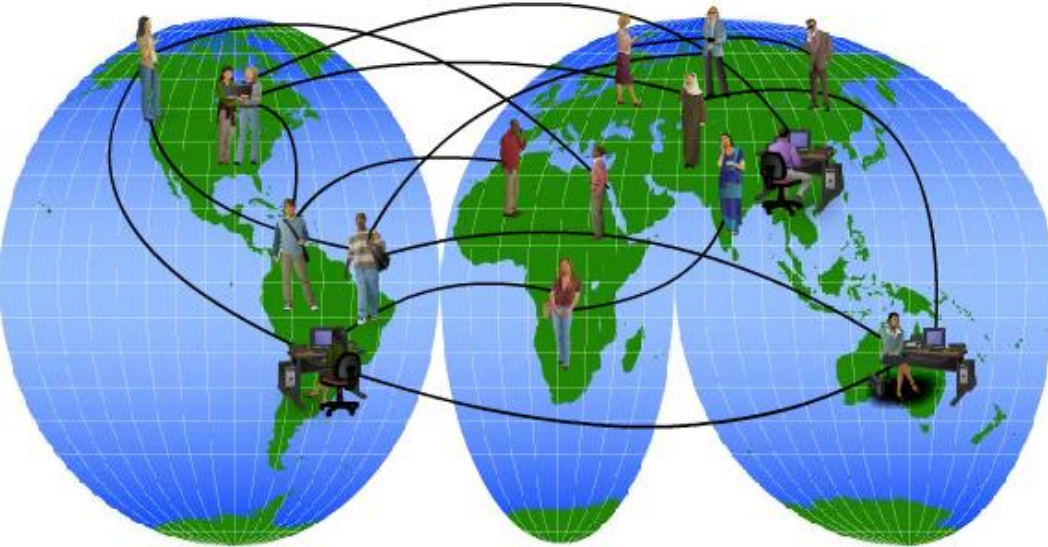
Definition

- Multiple computers connected together using a communcations system

- The purpose of a network is for computer to communicate and share files
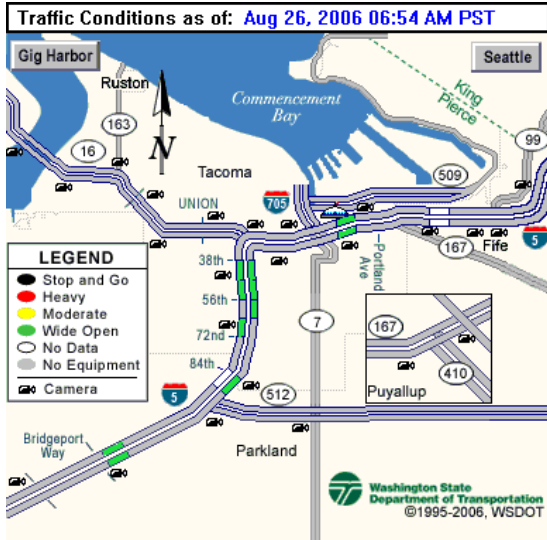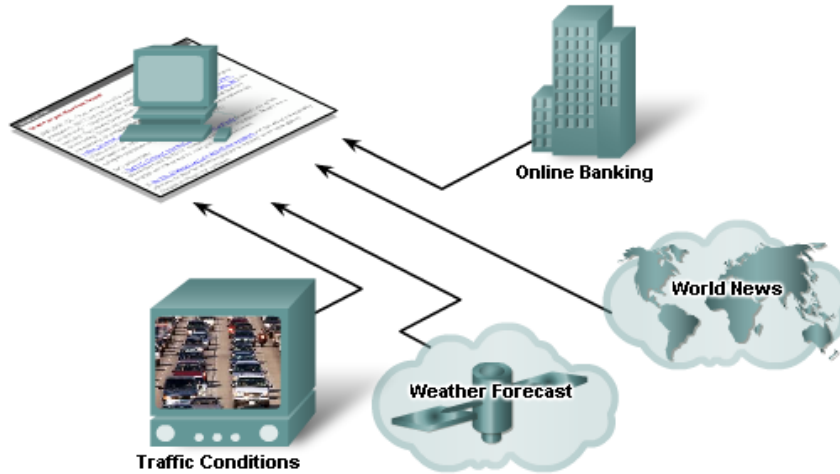
Networks Supporting the Way We Live

- The original idea about networks and the Internet was about sharing computer resources – **computer-to-computer** communications.
- That quickly changed to **people-to-people** communications.
- Early networks were limited to **character-based** information.
- **Communications between computers** was not common nor easy to do.

Networks in the way we work

Networks are integral in our daily lives

The way we live is supported by services delivered by the data network.

5

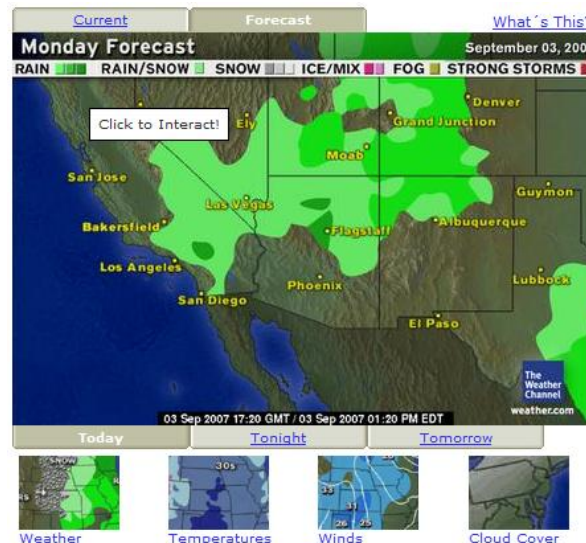# Networks Supporting the Way We Live

http://www.youtube.com/watch?v=CQzUsTFqtW0

- Today's networks carry between many different types of devices:
  - Voice
  - video streams
  - Text
  - graphics

Networks in the way we play

- We rely on networks for our lives outside of work.
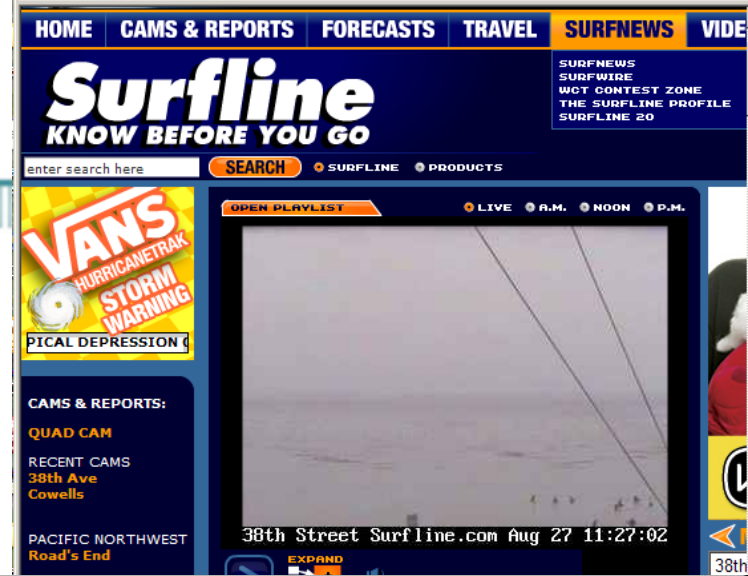
Lab Activity:
Google Earth

Hands-on Lab:
Networks Supporting the Way We Live

Networks – Behind the scenes

- More than just connecting cables… (that's the easy part)
- Today's networks are complex and sophisticated combination of protocols, software, hardware, algorithms, configurations, policies, and more
- Security
- Privacy
- 24 x 7 availability and access
- Quality of Service
- Video on Demand
- Voice over IP (over the Internet)
- Redundancy and backup
- Mission critical applications
- Productivity and user expectations
- Wireless

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Networks Supporting the Way We Play

- Email
- Personal Web Sites
- Sharing photos and videos (YouTube)
- Travel: Expedia, Priceline, Travelocity, etc.
- IM
- Gaming

Online Interest Groups
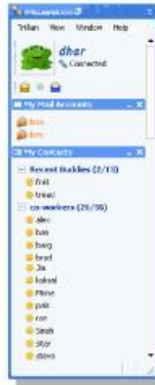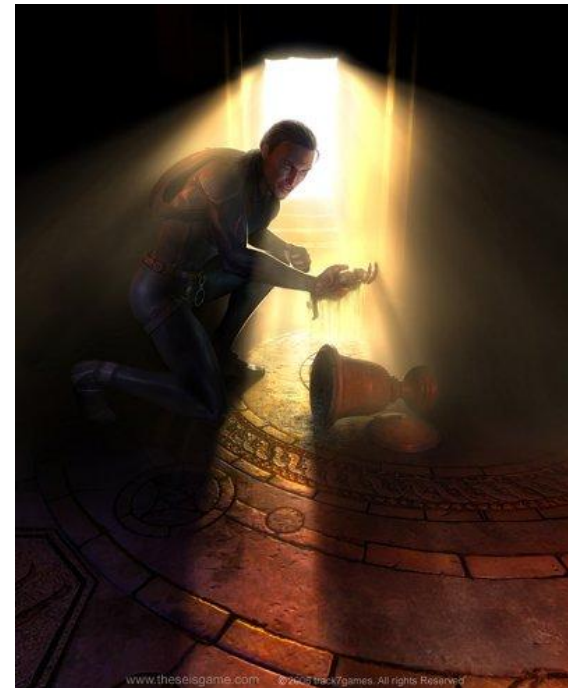
Online Games

Online Entertainment

Online Travel

Instant Messaging

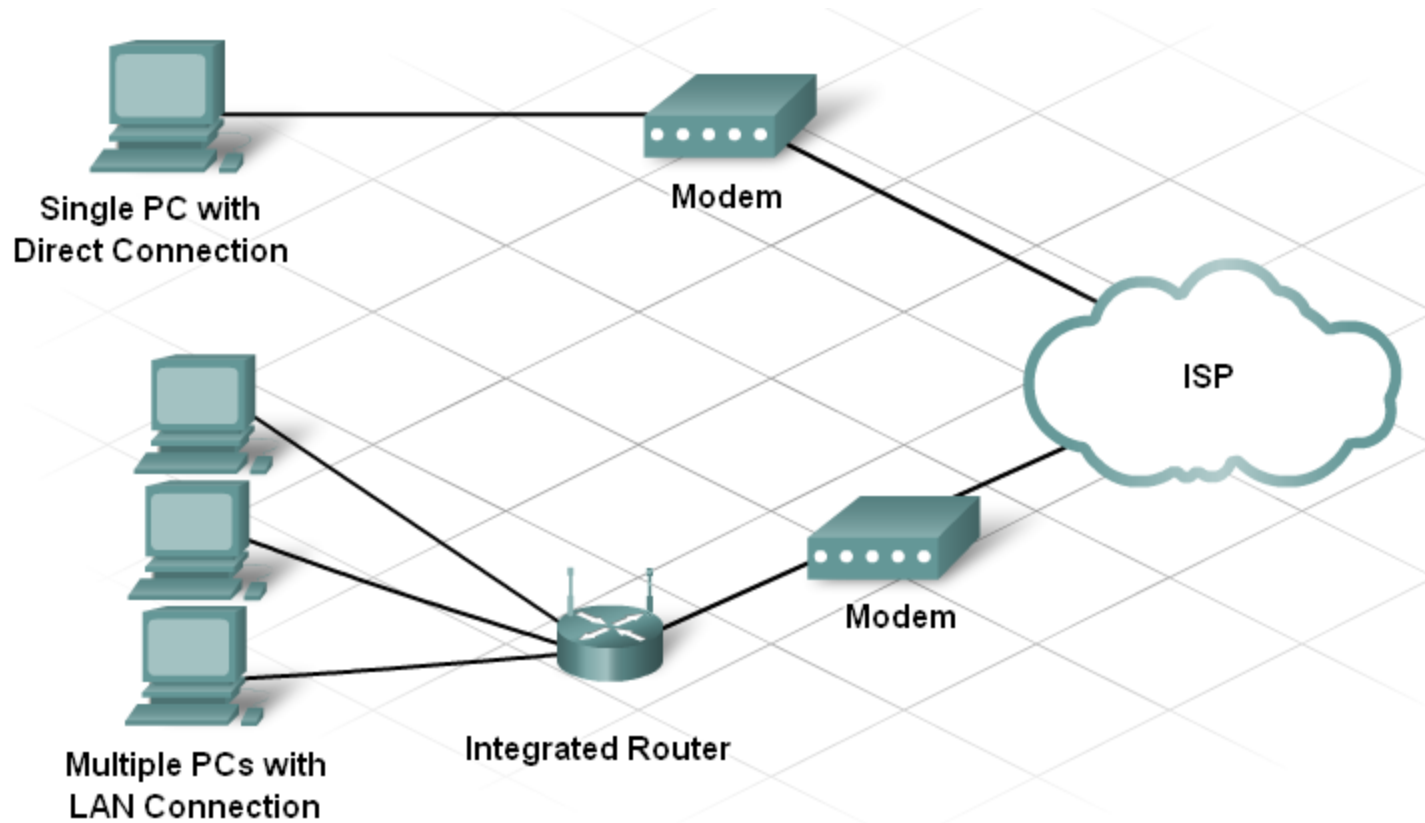The onboard data network provides a range of services to airline personal seatback video systems.

The way we play is supported by services delivered by the data network.

Type of Network

- Networks come in all sizes.

- They can range from simple networks consisting of two computers, to networks connecting millions of devices.

- Networks installed in small offices, or homes and home offices, are referred to as SOHO networks. SOHO networks enable sharing of resources, such as printers, documents, pictures and music between a few local computers.

- In business, large networks can be used to advertise and sell products, order supplies, and communicate with customers.

SOHO

Single PC with
Direct Connection

Modem

ISP

Multiple PCs with
LAN Connection

Integrated Router

Modem

Medium Network

Large Network

The Enterprise Architecture