

How Is the Internet Different?

Presentation by

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Outline

- Basic Technical Trends
- Network Produced by Those Trends
(the Internet)
- Impact

Basic Technical Trends

- Seven Basic Questions/Trends
 - Analog versus Digital -- Why Digital?
 - Voice versus Data -- What's the Difference?
 - Circuit Switching versus Packet Switching -- Why Packet Switching?
 - Narrowband versus Broadband -- Why Broadband?
 - High Latency versus Low Latency -- Why Low Latency?
 - Intelligence Interior to the Network versus at the Edge of the Network – Why at the Edge?
 - Wired versus Wireless -- Why Wireless?

The Network of the Future

- Network Trends/Goals from a Technological Perspective:
 - All applications -- voice, data, image, video, multimedia -- conveyed on an all digital, packet-switched, broadband, low latency network or “platform”
 - A “network of networks” platform that uses common, open, non-proprietary standards and protocols (e.g., the Internet Protocol -- IP)

The Network of the Future

- Network Trends/Goals from a Technological Perspective: (Cont'd)
 - Extension of this platform using wireless technology to allow users to communicate anyplace, anytime, in any mode or combination of modes.

Impact of Trends on Private and Public Institutions

- Selected Examples:
 - Stress on Public Policy-making and Regulatory Institutions
 - Stress on Traditional/Incumbent Providers of Telecommunication Services
 - Stress on Traditional Content Providers/Delivery Systems
 - Stress on Public Safety/Homeland Security/National Defense Agencies

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