Slide 1

Health Management
Information Systems

Unit 2
Hardware and Software
Supporting Health Information
Systems

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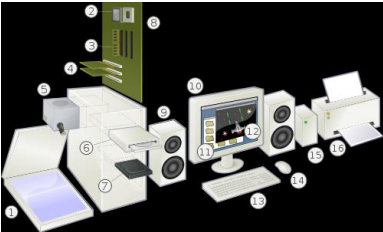_____
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Slide 2

Objectives

• Describe the major hardware components
  of a computer and major types of software
  used in computer systems
• Describe major types of network
  configurations

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Slide 3

Major Computer Components

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Slide 4

Computer Hardware

- Physical parts
  - Internal hardware
    - Examples: motherboards, RAM
  - External hardware
    - Examples: monitor, keyboard

Definition from the Tech Terms Computer Dictionary (www.techterms.com)

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Slide 5

Major Hardware Components

- Examples of hardware components
  - CPU
  - RAM
  - Video card
  - Sound card
  - Motherboard
  - Power supply
  - Hard drive

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Slide 6

Major Hardware Components

- Input devices   Output devices
  - Keyboard   - Monitor
  - Light pen   - Speakers
  - Mouse   - Printer
  - Microphone
  - Webcam

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Slide 7

Major Hardware Components

- Data ports
  - Serial port
  - Parallel port
  - Universal serial bus

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Slide 8

Major Hardware Components

- Removable data storage
  - CD/DVD drive
  - USB flash drive
  - Memory card

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Slide 9

Computer Software Components

- Computer software
  - Collection of computer programs and related data
  - Provides the instructions that tell a computer what to do

http://en.wikipedia.org/wiki/Computer_software

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Slide 10

Major Types of Software

- System software
  - Example: Utility software
    - Example: Backup and recovery software
- Application software
- Programming software

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Slide 11

System Software

- Operating systems
- Device drivers
- Servers
- Utilities
- Windowing systems

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Slide 12

Application Software

- Helps the user perform a task
  - Scheduling
  - Accounting
  - Word processing

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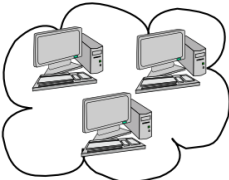
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Slide 13

Programming Software

- Compilers
- Interpreters
- Debuggers
- Linkers
- Text editors

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Slide 14

What is a Network?

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Slide 15

Major Types of Network Configurations

- Local area
- Wide area
- Virtual
- Health Center Controlled
- Storage area

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Slide 16

Local Area Network (LAN)

- Network of limited area
  - Examples
    - Home
    - Office
    - School
    - Airport

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Slide 17

Wide Area Network (WAN)

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Slide 18

Virtual Network

Internet VPN

Regional Office

Internet

Head-office

Regional Office

Remote / roaming users

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Slide 19

Health Center Controlled Network (HCCN)

- Consortia of Section 330 funded health centers
- Exchange information and establish collaborative mechanisms

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Slide 20

Storage Area Network (SAN)

- Network of storage disks
- Allows data transfers between computers and disks at high peripheral channel speeds

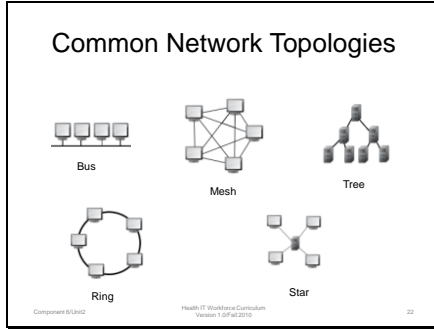Component 6/Unit2   Health IT Workforce Curriculum
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Slide 21

What is a Topology?

- The layout or structure of a network
- Physical
  – Physical design
- Logical
  – How data transfers in a network

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Slide 22

Common Network Topologies

Bus

Mesh

Tree

Ring

Star

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Slide 23

Summary

- Major hardware and software components used in computer systems
- Types of network configurations

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