What is an Information System

Organized combination of

- 1. Hardware
- Software
- Communications Networks
- 4. Data
- 5. People

Computer Hardware Technologies

- Examples
 - Dell PowerEdge 2600 File Server
 - Apple iMac
 - Sony LCD Flat Panel Monitor
 - iPod
 - IDAutomation USB Barcode Scanner
 - RFID Chip

Computer Software Technology

- Examples
 - Windows XP
 - Graphics Card Driver Software
 - PowerPoint
 - mySAP Customer Relationship Management
 - Peachtree Accounting
 - iTunes Software

Telecommunications Network Technologies

- Examples
 - Ethernet
 - Netgear Wireless Router
 - Cable Modem
 - Cell Phone
 - WiFi, WiMax card
 - Bluetooth device

Data Resource Management Technologies

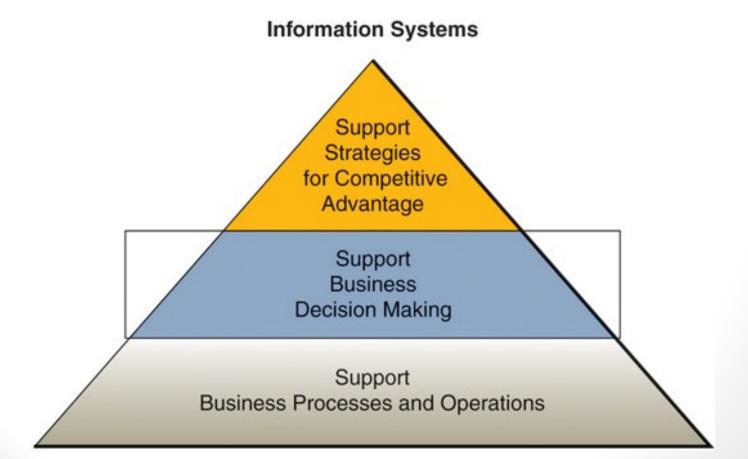
- Examples
 - IBM DB2 8.2
 - Microsoft SQL Server 2000
 - Oracle Database 10g
 - MySQL
 - Data Mining Software

People Technology ©

- People are the 5th component of an Information System
- Everyone forgets the importance of people in an information system.
- **Example**: End User, Data Entry Person, Manager, Programmer, DB Administrator, Cashier, Secretary, Professor.

Information Systems Serve 3 Roles

IS can support 3 different levels in business

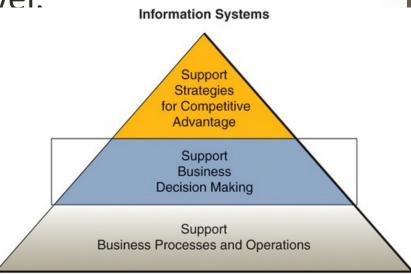


Expanding Role of IS

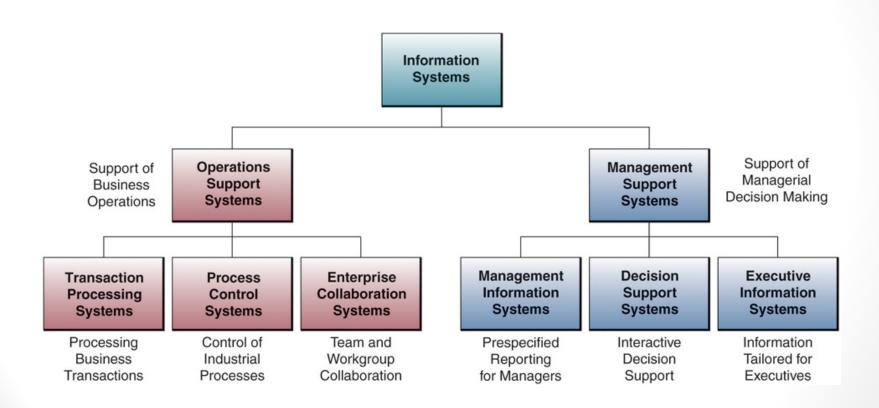
 Information Systems are being used in more areas, especial at the strategic level.

 At the same time, Informa participation of End Users (The Grunts)

 Biggest advantages of IS: Information can flow up the pyramid faster and more effectively.



Types of Information Systems



Transaction Processing System (TPS)

- Supports Operations
- Updates Operational Databases
- Examples:
 - ATM Machine System Banking Transactions
 - Cash Register System Point of Sale Transactions
 - Accounting System Checking Account Transactions
 - Even Pay-per-view or OnDemand is a TPS

Process Control Systems (PCS)

- Supports Operations
- Monitor and Control Industrial/Manufacturing Process
- Examples:
 - Petroleum Refining
 - Power Generation
 - Automobile Manufacturing

Enterprise Collaboration Systems (ECS)

- Supports Operations (Surprised?)
- Teamwork, communication, and collaboration
- Examples:
 - E-mail
 - Chat
 - Video Conferencing
 - Calendaring
 - Journaling
 - Workflow
 - File Sharing (Kazaa, Morpheus, Limework, Napster)

Management Information System (MIS)

- Supports Management (duh?)
- Analysis & Reporting
- Charts, Graphs, Summary Tools
- Examples:
 - SCT Banner Managing College Information (Siena uses it)
 - Spreadsheet (Excel) One of the first and most basic
 - Oracle's Corporate Performance Management

Decision Support System (DSS)

- Support Management
- What-if Analysis, Decision Modeling, Scenario Building, Highly interactive, ad hoc.
- Examples
 - Enterprise Decision Manager 2.0 Fair Isaac Corporation
 - AIMMS 3.6
- Most DSS's are custom developed for specific companies; very few out-of-the-box products.

Executive Information Systems (EIS)

- Supports high-level strategic management
- Provides critical info from other systems (MIS and DSS).
- Portal Concept: one place with links to all information
- EIS's integrate external information such as economic developments and news about related markets and competitors. Helps strategic decision making, not necessarily tactical.
 - Tactical doing things the right way right
 - Strategic doing the right things

Information Flow

System Information Flow

Information
Exchange/
Communication

