

# What is an Information System

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Organized combination of

1. Hardware
  2. Software
  3. Communications Networks
  4. Data
  5. People
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# Computer Hardware Technologies

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## ■ Examples

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

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## ■ Examples

- Windows XP
  - Graphics Card Driver Software
  - PowerPoint
  - mySAP Customer Relationship Management
  - Peachtree Accounting
  - iTunes Software
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# Telecommunications Network Technologies

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## ■ Examples

- Ethernet
  - Netgear Wireless Router
  - Cable Modem
  - Cell Phone
  - WiFi, WiMax card
  - Bluetooth device
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# Data Resource Management Technologies

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## ■ Examples

- IBM DB2 8.2
  - Microsoft SQL Server 2000
  - Oracle Database 10g
  - MySQL
  - Data Mining Software
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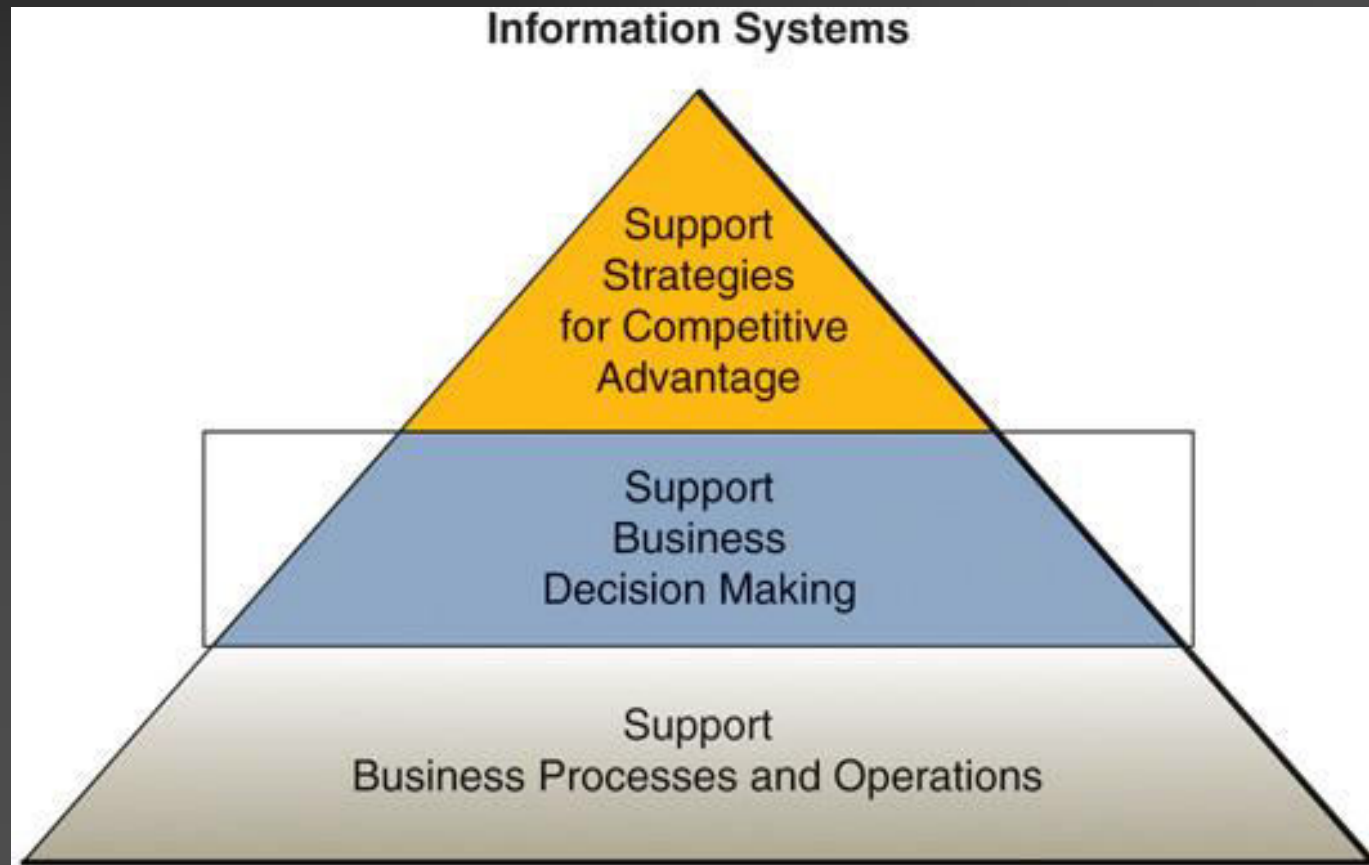
# People Technology ☺

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- People are the 5<sup>th</sup> 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.
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# Information Systems Serve 3 Roles

- IS can support 3 different levels in business



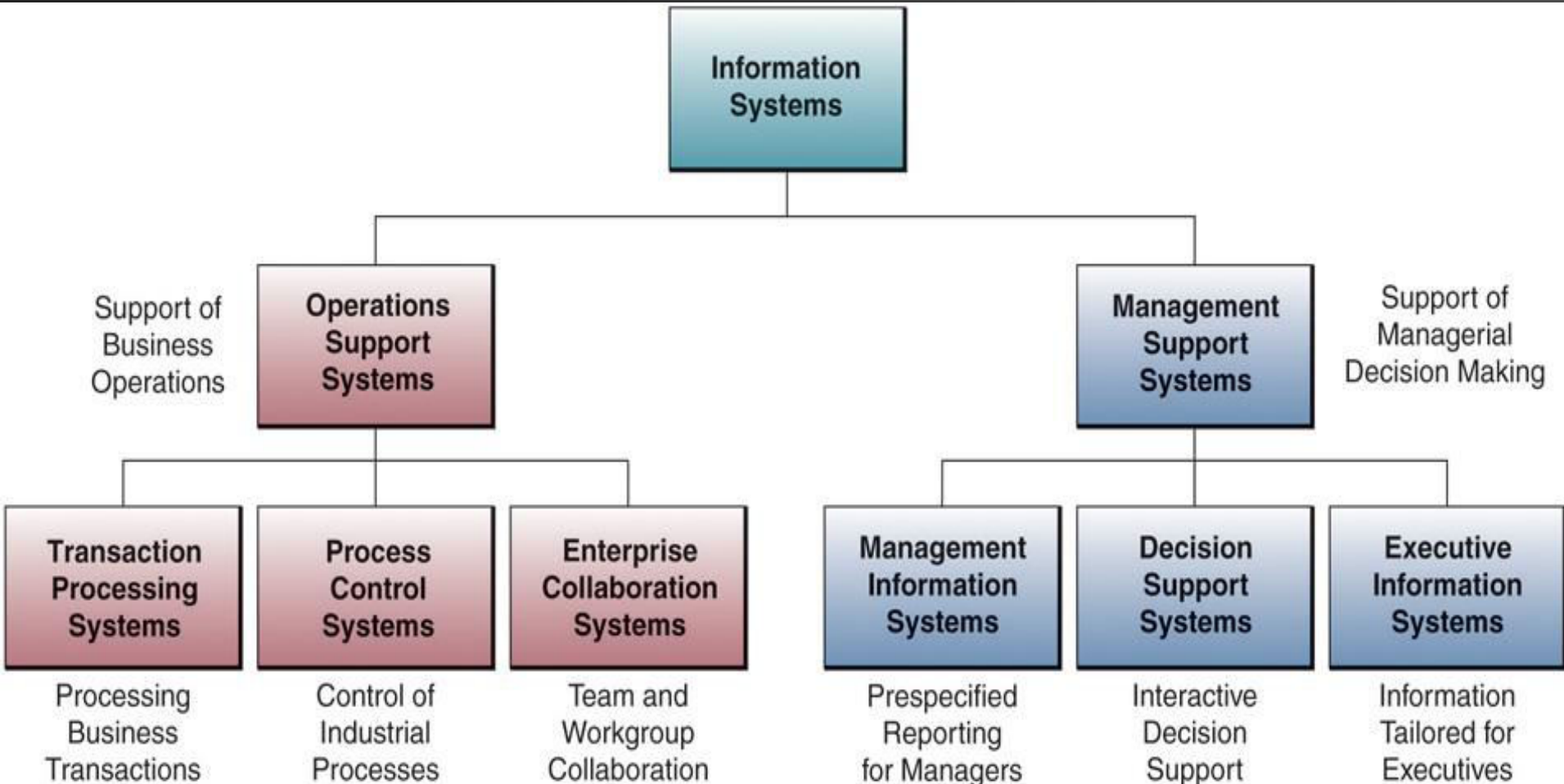
# Expanding Role of IS

- Information Systems are being used in more areas, especial at the strategic level.
- At the same time, Information Systems are expanding **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)

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- 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
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# Process Control Systems (PCS)

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- Supports Operations
  - Monitor and Control Industrial/Manufacturing Process
  - Examples:
    - Petroleum Refining
    - Power Generation
    - Automobile Manufacturing
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# Enterprise Collaboration Systems (ECS)

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

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- 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
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# Decision Support System (DSS)

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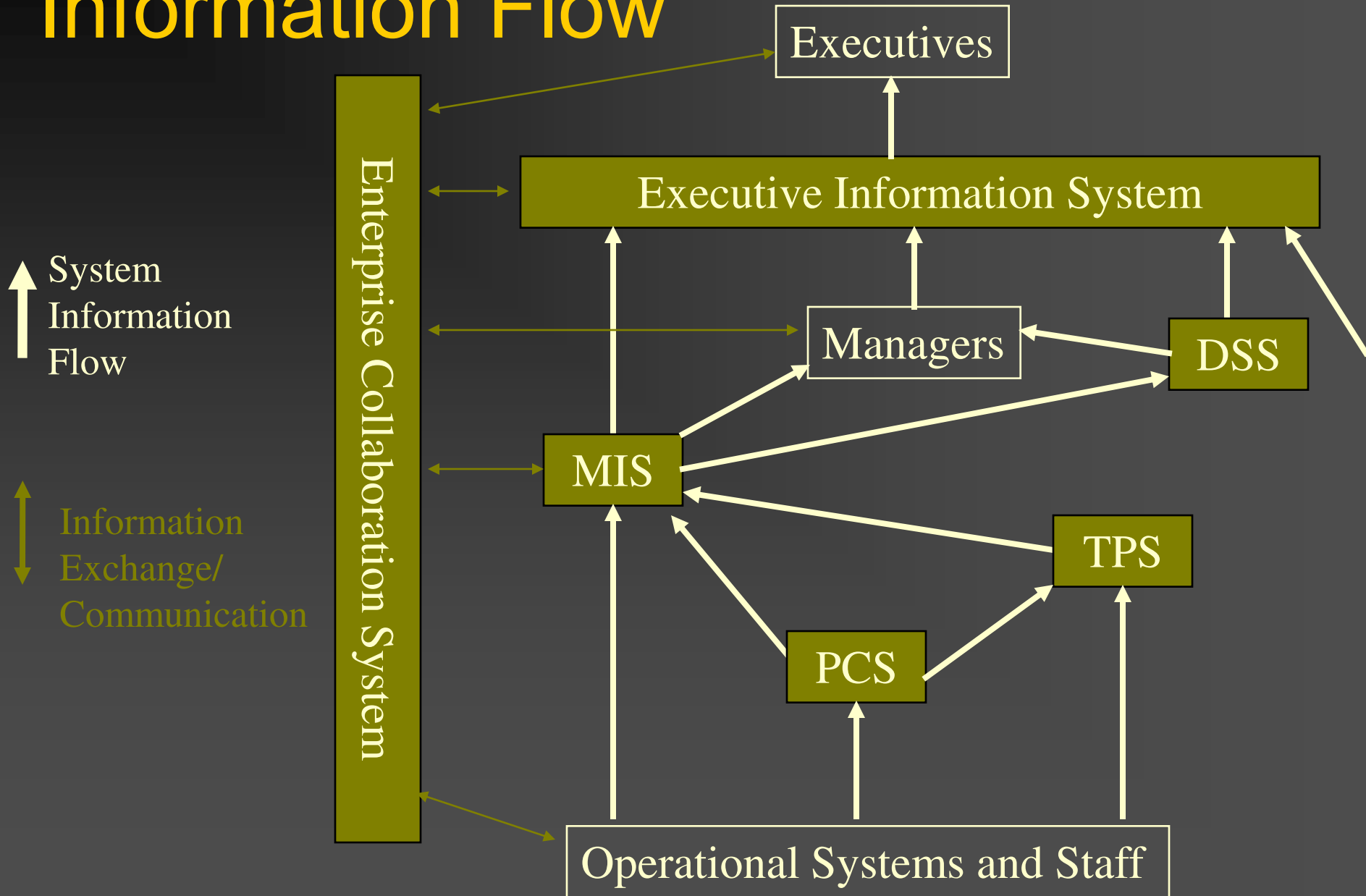
- Support Management
  - What-if Analysis, Decision Modeling, Scenario Building, Highly interactive, ad hoc.
  - Examples
    - Enterprise Decision Manager 2.0 Fair Isaac Corporation
    - AIMMS 3.6
  - Most DSS's are custom developed for specific companies; very few out-of-the-box products.
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#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

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- 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
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# Information Flow





# Information Flow

