# IT Service Delivery And Support Week Fourteen: End-User Computing

IT Auditing and Cyber Security

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# End-User Computing

* Definition
* Advantages
* Risks
* Audit Concerns
* Policies and Standards
* Risk and Control Considerations

# Definition:

* End-user computing is the transfer of information processing capabilities from centralized data centers onto the user's desktop. End-user computing systems may range in size and computing power from lap-top notebook computers, to standalone personal computers, client-server networks, or small systems with sufficient computing power to process applications for a financial institution.

* Small systems entirely supported by a hardware or software vendor are referred to as turnkey systems (not to be confused with PC/LAN systems).

# End-User-Computing Advantages

* Low cost relative to other platforms.
* Efficiency through the sharing of resources.
* Ease of expansion for future growth.
* Enhanced communication capabilities.
* Portability.
* Data availability.
* Ease of use.

# End-User-Computing Risks

* Difficulty in controlling access to the system.
* Lack of sophisticated software to assure security and data integrity.
* Insufficient capabilities to establish audit trails.
* Inadequate program testing and documentation.
* Lack of segregation of duties. appropriate operational activity.
* Inadequate System Development Life Cycle consistent with those for centralized information (SDLC) procedures.

# End-User-Computing Audit Concerns

* Incorrect management decisions.
* Improper disclosure of information.
* Fraud.
* Financial loss.
* Competitive disadvantage.
* Legal or regulatory problems.

# End-User-Computing Policies and Standards

* Policies:
  * Management controls.
  * Data security.
  * Documentation.
  * Data/file storage and backup.
  * System and Data Integrity.
  * Contingency plans.
  * Audit responsibility.
  * Training.

# End-User-Computing Policies and Standards (cont.)

* Standards:
    * Acquisition
    * User Standards
    * Software Selection
    * Physical Protection
    * Operations
    * DR/Contingency Plan
    * Network and Communications
    * Small Systems
    * Program/system control
    * Third party escrow agreement
    * Third party programming
    * System Software

# Risk and Control Considerations

* Security
* Computer Operations
* Implementation and Maintenance
* System Software
* Database Management Software
* Middle Ware