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System and Infra Structure Life Cycle Management

To ensure that the IS auditor understand and can provide assurance that the management practices for the development/acquisition, testing, implementation, maintenance and disposal of system and infrastucture will meet organization objectives

Description of Traditional SDLC phases :

- ***Feasibility Study :***
  - *It concerned with analyzing the benefits and solution for the identified problem area*
  - *Strategic benefits of implementing new system*
  - *Identifies and quantifies the cost saving*
  - *Estimates the payback period*
  - *Shows projected revenue on investment (ROI)*
  - *Intangible benefits*

Description of Traditional SDLC phases :

- ***Requirement Definition :***

  Identification and specification of the business requirements of the system chosen for development during feasibility study.

  - ***Descriptions what a system should do***
  - ***How user will interact with system***
  - ***Conditions under which the system will operate***
  - ***Information criteria the system should meet***

Description of Traditional SDLC phases :

- ***Design :***

  Depending on the complexity of the system, several iteration in defining system level specification may be needed. Key factors in this sector

  - ***User Involvement in the design***
  - ***Software baseline***
  - ***IS Auditors Involvement***

Description of Traditional SDLC phases :

- ***Development :***

  Key activities :

  - ***Coding and developing programs and system level documents***
  - ***Debugging and testing program developed***
  - ***Developing program to convert data from old to new system***
  - ***Creating procedures to handle transition to the new system***
  - ***Training selected users***
  - ***Ensure modifications are documented and applied accurately and completely***
  - ***IDE***
  - ***Program Languages***
  - ***Program Testing***

Description of Traditional SDLC phases :

- ***Implementation :***

  Key activities :

  - ***Implementation planning***
  - ***End user training***
  - ***Large scale data conversion***
  - ***Cutover (Go-live) Techniques***
    - ***Parallel Changeover***
    - ***Phased Changeover***
    - ***Abrupt Changeover***

Description of Traditional SDLC phases :

- ***Post Implementation Review :***

Description of Traditional SDLC phases :

- ***Risk Associated with Software Development:***
  - ***Within Project***
  - ***With suppliers***
  - ***Within organization***
  - ***External Environment***

E-commerce:

- ***E-Commerce Models:***
  - ***B2C***
  - ***B2B***
  - ***B2E***
  - ***B2G***
- ***E-Commerce Architecture***
  - ***One Tier***
  - ***Two Tier***
  - ***Three Tier***
  - ***Multi Tier***
- ***E-Commerce Risks***

E-commerce:

- ***EDI***
  - ***Traditional EDI***
  - ***Web based EDI***
  - ***EDI Risk and Controls***
- ***Electronic Fund Transfer***
- ***CRM - 195***
- ***SCM - 195***

Alternative Forms of Software Project Organization

- ***3.7.1 Agile Development - 196***
- ***3.7.2 Prototyping - 196***
- ***3.7.3 Rapid Application Development (RAD) -198***

Change Management Process Overview - 207

- ***RFC – Request for Change Document – 208***
  - ***Deploying the Changes***
  - ***Documentation***
  - ***Testing Changed Program***
  - ***Auditing Program Changes***
  - ***Emergency Changes***
  - ***Deploying Changes Back to into production***
  - ***Change Exposures (Unauthorised Changes)***

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