"How will the information system do what it must do to obtain a solution to a problem?"
Logical Design

- Describes what the system must do
- "Functional requirements"

Physical Design

- Describes the technology and other components needed to complete the logical design

Hardware backup

- Disaster recovery plans
- Hot site
- Cold site
Software & Database Backup

- Selective backups
- Incremental backups
- Image log

Fig 13.3

A Typical Table of Contents for a Request for Proposal

Contents
- COVER PAGE (with company name and contact person)
- BRIEF DESCRIPTION OF THE COMPANY
- OVERVIEW OF THE EXISTING COMPUTER SYSTEM
- SUMMARY OF COMPUTER-RELATED NEEDS AND/OR PROBLEMS
- OBJECTIVES OF THE PROJECT
- DESCRIPTION OF WHAT IS NEEDED
- HARDWARE REQUIREMENTS
- PERSONNEL REQUIREMENTS
- INSTALLATION REQUIREMENTS
- PROCEEDINGS
- TECHNICAL REQUIREMENTS
- MAINTENANCE REQUIREMENTS
- EVALUATION PROCEDURES (how vendors will be judged)
- PROPOSAL FORM (how vendors should respond)
- IMPORTANT DATES (when bids are to be completed)
- SUMMARY

Fig 13.4

The Stages in Deliberation and Final Decision

Note that the number of possible alternatives decreases as the firm gets closer to making its final decision.
Evaluation Techniques

- Group consensus
- Benchmark tests
- Cost/benefit analysis
- Point evaluation

Avoid “scope creep”
Systems Implementation

- Includes hardware acquisition, user preparation, hiring and training of personnel, site and data preparation, installation, testing, start-up, and user acceptance.

Make or Buy Software?

- Externally developed software
  - Lower cost
  - Lower risk
  - Ease of installation
- Internally developed software
  - Why?

System Testing

- Unit testing
- System testing
- Volume testing
- Integration testing
- Acceptance testing
Systems Maintenance

Checking, changing, and enhancing the system to make it more useful in achieving user and organizational goals.
Reasons for Maintenance

- Changes in business processes
- Requests from stakeholders, users, or managers
- Errors in the program
- Technical & hardware problems
- Corporate mergers & acquisitions
- Government regulations
- Changes in the operating system or hardware

Types of maintenance

- Slipstream upgrade
- Patch
- Release
- Version
Final step in SDLC
- Compares results with objectives
- Problems & opportunities trigger new SDLC process
- May be event-driven
  - Significant vs. Continuous
  - and/or time-driven

Factors to Consider During Systems Review
- Mission
- Goals
- Hardware/software
- Database
- Telecommunications
- IS personnel
- Control
- Training
- Costs
- Complexity
- Reliability
- Efficiency
- Response time
- Documentation
Computer Waste & Mistakes

Computer Waste
- Discard technology
- Unused systems
- Personal use of corporate time & technology

Computer Crime
Computers as Tools to Commit Crime

- Social engineering
- Dumpster diving
- Password sniffing
- Help on the Web

Computers as Objects of Crime

- Illegal access and use
  - Hackers vs. crackers
  - Script bunnies

Data Alteration & Destruction

- Virus
  - Application virus
  - System virus
  - Macro virus
- Worm
- Logic bomb
- Virus hoaxes
Computers as Objects of Crime

- Information and equipment theft
- Software & Internet piracy
- Computer-related scams

The Work Environment

Health Concerns

- Repetitive stress injury (RSI)
- Carpal tunnel syndrome (CTS)
- Ergonomics