

Chapter 13: Installation and Operations



Objectives

- Be familiar with the system installation process.
- Understand different types of conversion strategies and when to use them.
- Understand several techniques for managing change.
- Be familiar with post-installation processes.

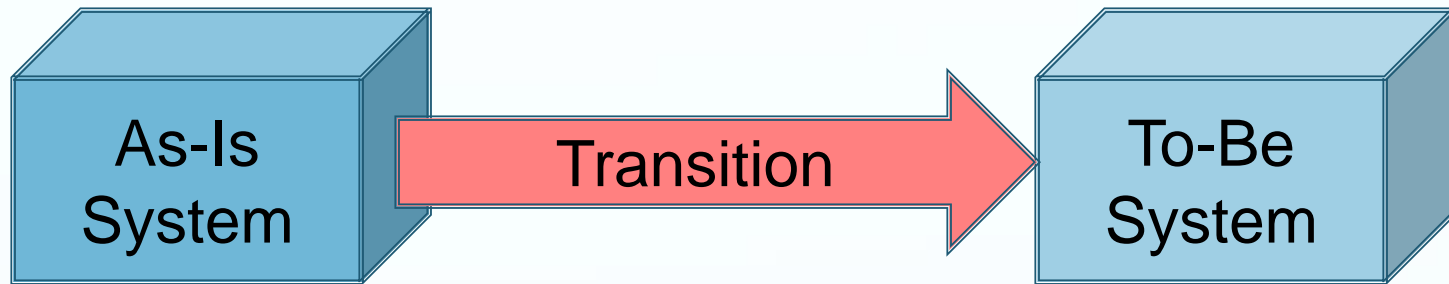


Introduction

- Managing the change to a new system is one of the most difficult tasks in any organization
- Conversion planning normally begins while the programmers are still coding
- Change management focuses on people
- Maintenance can account for 60-80% of IS budget



A Model for Implementing Change



Unfreeze

Analysis & Design

Move

Migration plan:

- Technical Conversion
- Change Management

Refreeze

Support & Maintenance

Cultural Issues and Information Technology

- Factors that may affect adoption/acceptance of technology
 - Speed of messages—may affect documentation & training
 - Context: high context societies need to see how the new system fits in to existing systems
 - Time: polychronic vs. monochronic (similar to parallel vs. serial)
 - Power distance—can a subordinate point out errors?
 - Uncertainty avoidance—related to risk and stress caused by change
 - Individualism vs. collectivism—who is more important: the individual or the group?
 - Masculinity vs. femininity
 - Long- vs. short-term orientation—which is the focus: long term relationships or short term profits?

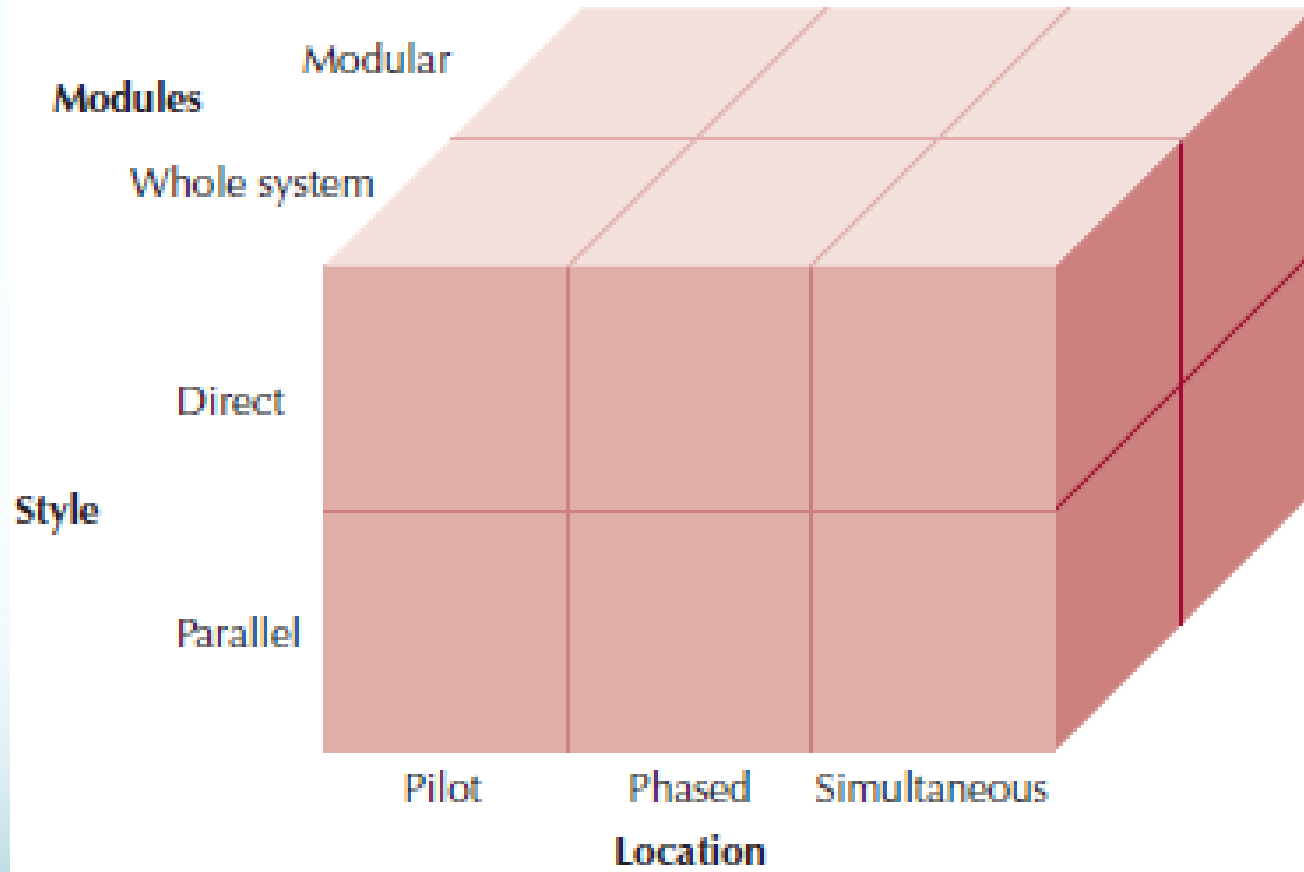


Conversion

- Conversion is the technical process by which a new system replaces an old system
- Three major steps to a conversion plan
 - Buy & install hardware
 - Install software
 - Convert data
- Conversion dimensions
 - Conversion style—direct or parallel
 - Conversion location—pilot, phased or simultaneous
 - Conversion modules—whole system at once or one module at a time



Conversion Strategies



Selecting Conversion Strategies

- Combine dimensions to form a strategy as needed
 - Example: Begin with a pilot conversion using parallel conversion in a handful of locations; once successful, roll out to remaining locations using phased conversion
- Prioritize risk, cost, and time; then refer to chart

Characteristic	Conversion Style		Conversion Location			Conversion Modules	
	Direct Conversion	Parallel Conversion	Pilot Conversion	Phased Conversion	Simultaneous Conversion	Whole-System Conversion	Modular Conversion
Risk	High	Low	Low	Medium	High	High	Medium
Cost	Low	High	Medium	Medium	High	Medium	High
Time	Short	Long	Medium	Long	Short	Short	Long

Change Management

- The process of helping people adopt & adapt to the to-be system and its accompanying work processes without undue stress
- Key roles
 - Sponsor
 - Change agent
 - Potential adopters
- “Build it and they will come” doesn’t work!

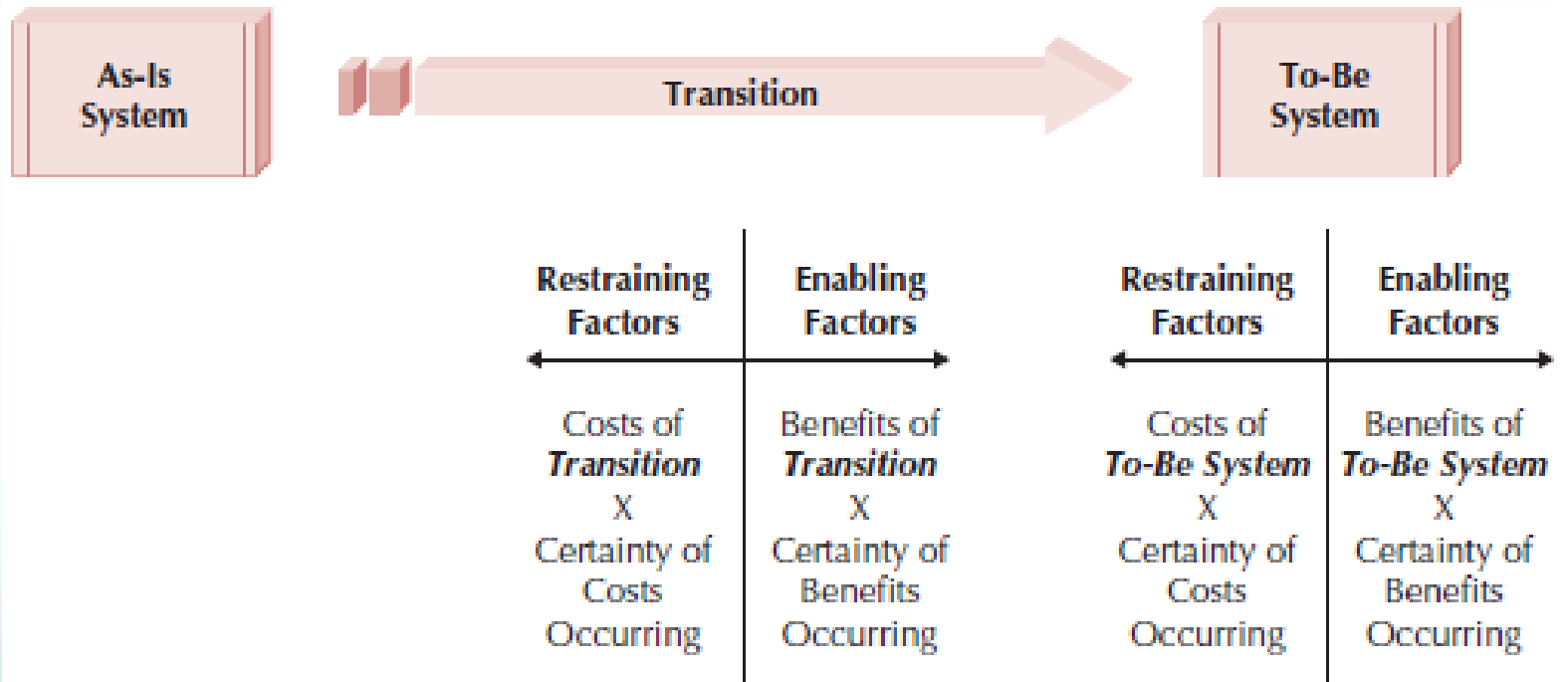


Resistance to Change

- What is good for the organization is often not good for the people in it
- People perform their own personal cost-benefit analysis
 - Perceived costs & benefits are weighted by the amount of uncertainty associated with them
 - Most will overestimate costs and underestimate benefits
 - Must take into account the transition process cost
 - Perceived costs and benefits are more important than real costs and benefits



Costs & Benefits of Change



Revising Management Policies

- Management policies
 - Provide goals
 - Define how work processes should be performed
 - Determine how people are rewarded
- No computer system will be successfully adopted unless management policies support its adoption



Work Process Structuring Tools

- Standard Operating Procedures
 - SOPs must be revised to match the to-be system
- Measurements and Rewards
 - Design to motivate desired (acceptance) behavior
- Resource Allocation
 - Direct effect is the actual reallocation of resources
 - Symbolic effect shows that management is serious about the new system



Assessing Costs & Benefits

- Develop a list of costs & benefits from two perspectives: the organization & the potential adopters
- Consider the effects on both end-users and managers
- Goal is to persuade those who might resist to support the change
 - Significant management changes may be required to prevent grassroots derailing efforts
- A successful organization may find it harder to manage change
 - People need to be convinced that what has worked in the past may not work in the future



Motivating Adoption

- Provide clear and convincing evidence of the need for change
- Two basic strategies to motivate adoption
 - Informational strategy
 - Political strategy
- Change management goal is to support and encourage the ready adopters and help them win over the reluctant adopters



Enabling Adoption: Training

- Provide the skills needed to adopt the change
 - Don't assume the system is so simple to learn that new users need no training
- What to train?
 - Training should *not* focus on using the system
 - Training should focus on helping the users accomplish their jobs
 - Training should focus on what the user needs to do, not what the system is capable of doing
- How to train?
 - In groups in a classroom
 - One on one
 - Computer based training (CBT)

Selecting Training Methods

	One-on-One Training	Classroom Training	Computer-Based Training
Cost to develop	Low to Medium	Medium	High
Cost to deliver	High	Medium	Low
Impact	High	Medium to High	Low to Medium
Reach	Low	Medium	High

Post-implementation Activities

- Goal is to institutionalize the new system
 - Make it the normal & accepted routine
 - “Refreeze” the organization after successful transition
- Usually the job of the project sponsor and manager
 - Actively promote its use and monitor its adoption
 - Provide steady flow of information to users to encourage use



System Support

- Now transition from project team to an operations group
 - Responsible for operating the system & providing system support
- Types of system support
 - On-demand training
 - Online support (e.g., documentation & FAQs)
 - Help desk to provide expert advice
 - Level I support should satisfy 80% of problems
 - Unable to solve at level I:
 - Generate problem report or ticket
 - Escalate to Level II



Elements of a Problem Report

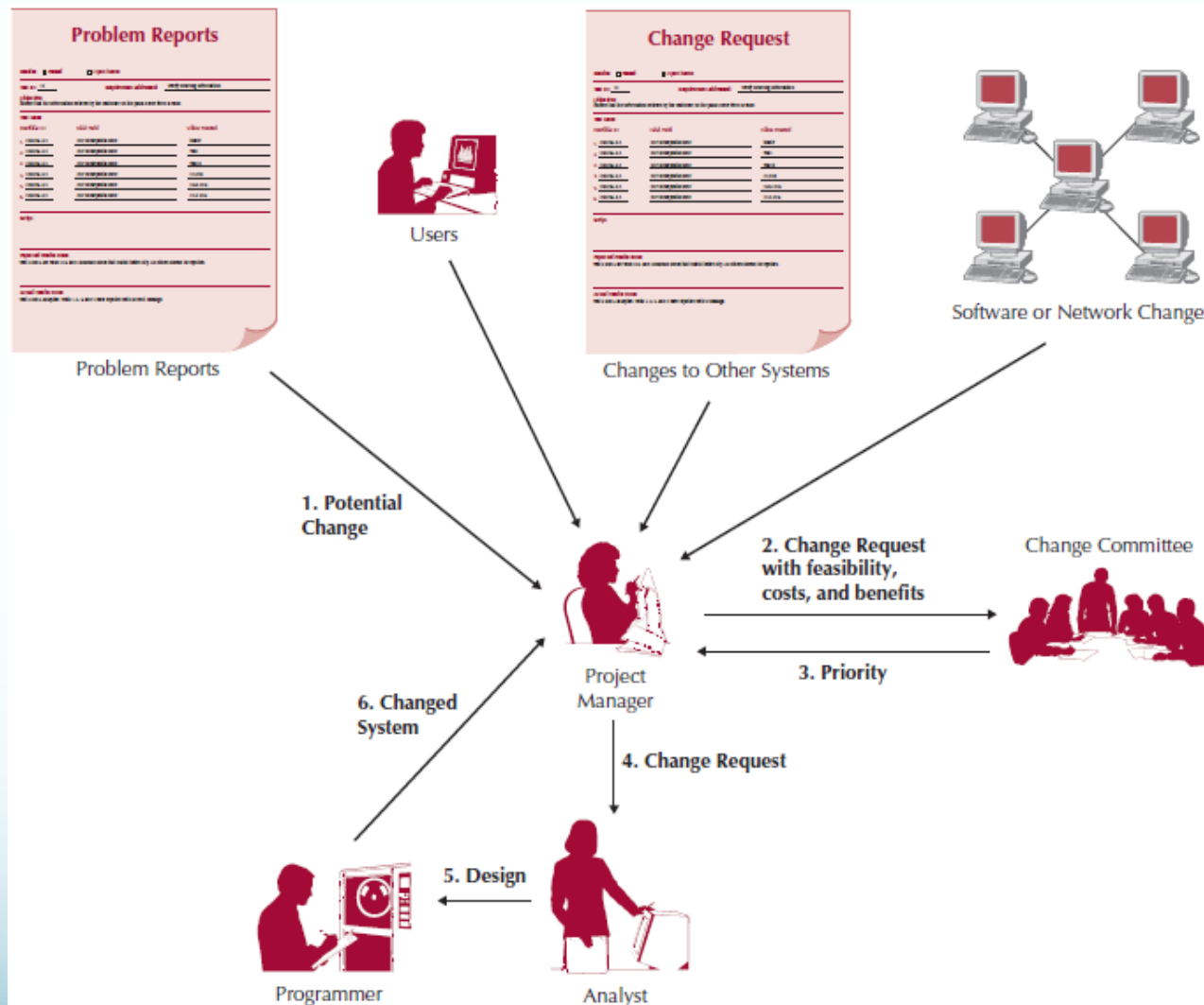
- Time and date of the report
- Name, e-mail address, and telephone number of the support person taking the report
- Name, e-mail address, and telephone number of the person who reported the problem
- Software and/or hardware causing problem
- Location of the problem
- Description of the problem
- Action taken
- Disposition (problem fixed or forwarded to system maintenance)

System Maintenance

- The process of refining the system to make sure it continues to meet business needs
- More expensive than initial development
- Novice system analysts & programmers will work on maintenance projects
- Change requests are smaller versions of a system request
- Requests may come from a number of different sources
 - Problem reports
 - Users
 - Other projects
 - Underlying software (e.g., Operating System changes)
 - Senior management



Processing a Change Request



Project Assessment

- Determine what was successful and what needs to be improved
 - Project Team Review
 - Members list what worked and mistakes that were made
 - Goal is to repeat excellent performance and eliminate mistakes
 - Project manager can prepare a “lessons learned” document
 - System Review
 - To what extent did the proposed costs & benefits actually accrue
 - Goal is to compare estimates with actual values
 - Determine whether or not the system provides the expected value
 - Provide baseline costs for future projects

Summary

- Cultural Issues and Information Technology
- Conversion
- Change Management
- Post-implementation Activities

