RL Consulting

People • Process • Technology
Organization • Integration

IT Service Management

Change Management Methods and Implementation Best Practices

White Paper

Prepared by:
Rick Leopoldi
June 19, 2002

Change Management Implementation Methods

Change Management is the process of planning and coordinating the implementation of all changes (any planned alteration or addition to the operating environment including application systems) into the production environment in a logical and orderly fashion. It does not develop changes, nor does it implement them.

Change Management Objectives:

1) To minimize the adverse impact of necessary changes on system integrity, security and the service level agreements.
2) To allow the coordination and planning of changes in order to provide a stable production environment.
3) To maximize the productivity of persons involved in the planning, coordinating and implementation of "quality" changes.

Change Management Mission:

1) To ensure the documentation of all proposed changes prior to installation in the production environment.
2) To ensure verification of technical completeness:
- Accuracy of Technical impact and risk analysis
- Plans for final test, install, backout and recovery
- Identification and review of all technical dependencies including effect on concurrent changes
3) To ensure that the timing of change executions does not conflict with the business cycles or priorities.
4) To ensure appropriate management involvement and approval:
- Required sign-offs (i.e. justification, user acceptance, affected areas)
- Approval, deferral, or disapproval of change installations
5) To ensure the verification of successful testing to the degree required by organization standards before change introduction to the production environment.
6) To ensure the documentation of actual change installations and/or change backouts:
- To enable communication of change results
- To provide a history of changes
- To support the maintenance of systems documentation

Change Management Guidelines:

1) All changes (including those to application systems) must be monitored and controlled.
2) In the information business, change is the normal mode of operation, not the exception.
3) One formal Change Management system, with "system wide" scope and influence must be in place.
4) A Change Coordination function with "clout" (backed by senior management) must be established to control the day-to-day activities of the Change Management system, with authority to reject those changes that do not adhere to the guidelines.

Change Management Life Cycle Functions:

1) Change Request Initiation
The person or group requesting a change will complete the submitter section of Request for Change Template (displayed later). If a user is involved, IT can help complete the form or screen.
2) Change Priority (Impact and Risk Assessment)

The impact the change will have on the production environment and the services provided to the user and the business reasons for the change are determined and approved (see Sample Change Priority Guidelines).

3) Change Development

As part of the change development, based on the installation's standards, a plan for installation is required. A suggested checklist of items to include in the plan is:

- Test procedures followed, with results
- Backout procedures (must be available)
- Resource plan
- Description of any training required
- Required and supplied documentation
- Proposed installation schedule
- Business reason for the change
- Management approvals

4) Change Coordination

This function controls the day-to-day activities of the Change Management system with the goal of meeting the Change Management Objectives. A weekly Change Management meeting (see Suggested Change Management Meeting Agenda) is chaired by the Change Coordinator.

Other Change Coordination Functions:

- Change request forms are filed and a Change Log kept current (or this is done through a Problem/Change Management system, if applicable).
- All items listed in the Change Management Mission are reviewed for all major (High and Medium risk) changes. Based on installation standards, all items must be acceptable for the change to be scheduled for installation.
- All approved changes are scheduled for installation.
- A ten day detailed change installation schedule and three-month major change schedule are updated and produced weekly.
- All changes are tracked and when required, follow-up is done.
- Other Management reports such as Highlights of Major Changes Planned and Results of Major Changes Installed (History of Changes) are produced.

Suggested Change Management Meeting Agenda

1) To review the effects of significant changes (high and medium risk) and confirm schedules for implementing these changes. The meeting is the focal point for all planned change information and management controls.
2) To review planned changes for the next ten days. Based on the day of the change meeting, this ten-day projection should cover two (2) weekends or PM windows. Discuss any emergency changes since the last change meeting.
3) To review any schedule or procedural violations within the past week along with the results of the changes.
4) Accurate minutes should be taken, distributed to all attendees and saved for history purposes.

Purpose:

The meeting is conducted to review the suitability of changes scheduled for implementation and to verify the coordination and cooperation of participating areas. The results of this meeting will be the basis for a summary report for Management.

It is the function of this meeting to review the business and technical assessment and to review and approve the schedule of each change; to verify that the change meets the business objectives, and will not have a negative effect on the business community. In

addition, all changes are reviewed to see if and how they affect the Disaster Recovery Plan or recovery strategy. If it is determined that the change is not needed or is untimely, it will be canceled or rescheduled.

This meeting marks the change request deadline. All change requests that are issued after the meeting begins will be deferred until the next meeting. If the request cannot be postponed (i.e. emergency), it may be discussed at the current meeting.

Meeting Participants:
- Change Coordinator (meeting chairperson)
- Technical Support
- Operations Management
- Processing Services
- Applications Group
- Help Desk
- Network Management
- Change Requestors/Implementers
- Hardware Group
- Vendors (if applicable)

Sample Change Priority Guidelines

Change Risk Level

Risk Level	Lead Time	Description
H	3 wks	Very Difficult or impossible to backout. Major impact if it fails. Involves several or critical systems. Large staff involved in implementation. Will disrupt hardware, software, data if unsuccessful.
M	2 wks	Backout is difficult or lengthy. Involves several systems. May disrupt hardware, software, data if unsuccessful.
L	1 wk	Small impact on failure. Involves non-critical systems. Backout is simple or not needed.
E	None	Immediate business requirement with no advance warning. High severity. These MUST result from a Severity 1 problem and have been entered in the system with a Problem number assigned.

Sample: C H A N G E P R I O R I T Y G R I D

Change -Risk-	----- Problem Impact -----			
	CRITICAL	HIGH	MEDIUM	LOW
HIGH	+1	1	2	3
MEDIUM	1	2	3	4
LOW	2	3	4	5
EMERGENCY	+1	-	-	-

Changes receive priority for resources and scheduling based on priority assigned.

Suggested Change Planner/Developer Responsibilities

Note: The Change Planner/Developer's responsibilities differ from those of the Change Coordinator so they are listed here for comparison.

Change Planner/Developer: One who requests/creates a change to be moved into production.

Objective: To supply the Change Management system (or Change Coordination Function) with a change description, dates requested and purpose of the change. This includes testing and supplying all supporting documentation. To communicate the difficulty and/or success of the development process back to the change management system or Change Coordination Function.

Responsibilities:
- Obtain approvals from their management before the request for change is scheduled.
- Review the testing results from change development.
- Develop and/or prepare the change for production.
- Complete and supply all required documentation to appropriate personnel.
- Update all affected procedures (i.e. operational, user and offsite if applicable).
- Develop backout and recovery procedures so Operations personnel can use them if necessary.
- Develop test procedures.
- Schedule and run test procedures.
- Use test results as part of change documentation.
- Notify all individuals that will be impacted by the change (i.e. Help Desk staff, Operations, Technical Support, the Client Community, etc.).
- Update the change system (or notify Change Coordination) throughout the development process.
- Notify management affected by the change of any adjustment to the planned schedule.

Suggested Change Coordinator Responsibilities

Change Management Coordinator: The person responsible for maintaining the Change Management process.

Objective: To ensure that policies and procedures are adhered to and that senior management has the information (i.e. reports, feedback) needed to ensure that the Change Management approach is meeting all objectives.

Responsibilities:
- Chair the Change Management meetings.
- Mediate all conflicts regarding scheduling, lack of approval or lack of documentation prior to implementation of the change.
- Revise the change procedures if needed and advise management.
- Act as focal point for suggestions regarding change procedures.
- Audit the Change Log or mainframe system reports to ensure that the changes are being updated properly.
- Produce statistical and trend reports for managements use to analyze Change Management system effectiveness.
- Advise management of procedural violations or omissions through management reports.

- Maintain an awareness of all projects that will introduce change to the production environment.
- Provide advice on change process techniques and contribute to change implementation decisions.
- Distribute the change schedule prior to the weekly meeting or instruct attendees to print off their own copy for personal use.
- Review documentation that accompanies each change and verify that it is complete, including management approvals.
- Verify the success of the change and its correlation to the original request of the user.