

XXXXX (XX)
IT Operational Process

Change Management Process Guide

XXXXX Information Technology

Preface

The purpose of this document is to outline the procedures that govern the Change Management process in XXXXX (XX) Information Technology. This document describes how to use the procedures and provides a definition of the management controls required and some rationale for instituting those controls.

Table of Contents

Preface	2
Table of Contents	3
Objectives/Purpose	5
Scope Inclusion	6
Scope Exclusion	6
Change Management Standards	7
Status of Changes	8
Types of Changes	9
Change Levels	11
Change Level Summary Table	17
Risk/Complexity Scoring	18
Risk/Complexity Scoring Grid	19
Summary of the XX Change Management Procedures	20
Change Request Flows	22
High Level Process Flow	22
1. Enter Change Request Flow	23
2. Assign Change Implementer Flow	26
3. Monitor Change Calendar Flow	28
4. Perform Assessments Flow	30
5. Approve Change Flow	33
6. Commit Change Schedule Flow	35
7. Deploy Change Flow	37
8. Assure Change Quality Flow	39
9. Close Change Flow	41
Change Request Form	43
Scheduled Change Windows	47
Lead Times for Changes	48
Unsuccessful Changes	49
Roles and Responsibilities	51
Change Review Board	51
Change Coordinator	52

Change Requester 53

Change Implementer 54

Change Management Process Owner 55

Service Center Administrator 56

Change Controller 57

Change Scheduler 58

XX Change Review Board..... 59

 Change Review Definition 59

 Change Approver Table 60

 Meetings..... 61

 XX Change Review Board Meeting Agenda 62

Measurements 64

Glossary..... 65

Objectives/Purpose

Change Management is the process of planning, coordinating, implementing and monitoring changes affecting any production platform within Information Technology's control. The objectives of the Change Management process are to:

- Ensure that changes are made with minimum disruption to the services IT has committed to its users.
- Support the efficient and prompt handling of all changes.
- Provide accurate and timely information about all changes.
- Ensure all changes are consistent with business and technical plans and strategies.
- Ensure that a consistent approach is used.
- Provide additional functionality and performance enhancements to systems while maintaining an acceptable level of user services.
- Reduce the ratio of changes that need to be backed out of the system due to inadequate preparation.
- Ensure that the required level of technical and management accountability is maintained for every change.
- Monitor the number, reason, type, and associated risk of the changes.

The Change Management procedure for the XX Information Technology Division defines how the change process is implemented in all of the IT platform environments. The objectives of the operating procedures, in addition to those detailed above are to:

- Provide documentation that allows XX IT management to understand, at any point in time, the configuration of the IT environment.
- Minimize the bureaucratic impact on the development community while maintaining control of the environment.

Activities of the Change Management Process at XXXXX include:

- Receiving change requests from the Request for Service process
- Determining whether or not the change is in the best interests of XX
- Assigning the change to resources within IT for solution identification, sizing and risk analysis
- Accepting or rejecting the requested change
- Assigning the change to solution development resources
- Reviewing the solution prior to implementation
- Scheduling the change
- Communicating change status as required to all interested parties
- Closing the change

Scope Inclusion

The management of any installation or alteration to hardware, network, system or application software, procedure or environmental facilities which adds to, deletes from or modifies the service delivery environment.

Scope Exclusion

Activities required to develop, test and deploy the change.

Change Management Standards

- All substantive changes to the IT Environment must adhere to the XX change Management process. A substantive change has the potential to affect the ability of users and systems to interact with each other.
- All changes must conform to the published guidelines that dictate the “look and feel” of the XX web environment.
- All web page content changes must have the approval of the web page owner prior to change implementation.
- All changes to the production systems within IT will have a corresponding set of documentation that describes the change, the business reason for the change and the disposition of the change. This includes emergency and exception changes.
- The risk and/or impact ratings of the requested change will determine which of the four phases of the change workflow (Analysis, Design, Testing and Implementation) will be required to promote the change into production. For “minor” changes only Analysis and Implementation will be required.
- Anyone with a valid XX Notes access will be able to enter a change into the Change Request process. Only authorized approvers will be able to accept a change request into the Change Management process.

Status of Changes

The following status codes are used to reflect the status of a change request:

- **Open** – The change has been received and accepted but has not been assigned
- **In-Progress** – The change has been received, acknowledged and assigned. Work is in progress to fulfill the change request.
- **Approved** – The business and technical assessments have been completed and the change has been approved and committed to the change scheduler.
- **Rejected** – The change has been rejected and will be routed back to the Request for Service process and sent back to the customer with an explanation and a recommended course of action.
- **Closed** – The change request has been closed.
- **Canceled** – The change request has been canceled.

Types of Changes

The Change Management Procedure applies to all types of changes related to the XX IT environment. The following is a description of each of the types of changes that can take place and the rules that apply to each.

- **Application Changes** - Changes to any application code that is running on or linked to by any hardware or software in the XX IT environment. These changes are typically made to enhance the function or performance of or to fix a known error in the IT application environment. These changes cannot be implemented without approval of the owner of the application and cannot be requested by any programmer other than the one assigned to the program. Assignment of Risk Category Level of the change is to be a joint effort of both the owner and the Change Implementer.
- **Hardware Changes** - All XX IT and IT support equipment installations, discontinuances and relocations are controlled by the Change Management Procedure. This activity can be requested by anyone but must have the approval of the Operations Manager.
- **Visual Image Changes** – Changes to the “artistic” presentation of web pages are not required to make entries into the Change Management system. Changes to “Active” areas of the web page are required to use the XX Change Management procedure.
- **Software Changes** - The criteria for entering a software change into the Change process are based upon the effect that the changes may have on the IT support resources. If the changes affect the system, users or the support staff there is a requirement to enter it into the Change process. If the change is made for the exclusive benefit of the requester and if failure could not affect anyone else, that change would be exempt from the Change Process. For example, a change made by a programmer affecting a procedure or a program under development on a test application requires no entry. However, when stand-alone test time is required on a production system, a change request form is required.
 - Typically, software changes would include changes to the Operating System, Vendor supplied Program Products, e.g., Visual Studio, Java, etc. or common application support modules. However, during the last two and first five workdays of each month changes are restricted to emergency and critical necessities as determined by the Director of Information Technology.
- **Network Changes** - All installations, discontinuances and all relocations of equipment used for IT teleprocessing communications are entered into the change process. This includes all routers, switches and telephone lines as well as Personal Computers if they are connected to the network.
- **Environmental Changes** - Environmental changes normally involve the facilities associated with the IT Installation. These facility changes include items such as air conditioning, chilled water, raised flooring, security, motor generators, electricity, plumbing and the telephony system for voice and data. For example, when there is

a planned weekend power outage initiated by the local power company this information is submitted to the Change Management Process a minimum of two weeks prior to the scheduled outage and communicated to management, staff and the user community.

- **Documentation Changes** - All procedural changes to the standard operating procedures will be implemented through the Change process. Also, all permanent deviations from the published schedule time for running of production applications will be communicated through the Change Management system.

Change Levels

The following guidelines for definition of Change risk levels are provided for consideration during the planning cycle. It must be clearly understood that these requirements are the minimum for each of the defined levels. The Requester may wish to plan additional lead times, documentation or reviews to insure that targets can be met and planned implementation schedules can be achieved.

All changes are tracked, correlated and used for management reporting, statistical, trending, etc., to identify when and where additional resources should be provided. For any change that fails, the Change Requester must enter an explanation in the comments section of the Change Record for that change and notify the Change Coordinator. The Change Coordinator will then close the change with the appropriate close status. If the change is to be attempted at a later time, the Change Requester should reenter the change with the new date. Changes that cause a Platform outage will be reviewed at a Quality Measurement Meeting.

Level E Changes

Emergency changes are those changes that are vital in order to ensure that IT's committed service levels are maintained. An Emergency change should not be used in order to bypass the appropriate lead-time for a change that has been entered into the system.

Exception changes are those changes that are a result of a business need and must be installed prior to the required lead-time.

These types of changes proceed to the implementation phase when the requester's manager and the Director of Information Technology acknowledge that an Emergency or an Exception situation exists and authorize the modification planned. These changes will be post-reviewed to assure successful implementation, along with identification of any external impacts or new requirements. Post-review will also evaluate the reason for the Level E change request and try to determine a way of eliminating this requirement in the future. The post-review will also evaluate if, in fact, the change addressed a real or a perceived emergency condition. In all cases, the review must determine if additional action is required, what that action should be and who will be responsible for the action.

Documentation requirements for Emergency changes are the same as any change. The Requester is responsible for meeting all requirements for the change documentation within one week of the implementation.

How do you know that the change falls under Level E?

For non-application changes:

- Is the change needed to restore immediate service to the end user?
- Is the change necessary to fix an existing problem immediately?
- Is this a change that must be installed immediately but the need for it was not recognized early enough to be approved through the regular process?

For application changes:

- Must this change be done immediately to fix problems for jobs that ABENDED during the previous night or are required to run in order to bring up on-line systems?

What types of management approval is required for Level E changes?

Approval required by:

- Director of Information Technology or her designee
- Change Management Process Owner or his designee
- Manager of the user department requesting the change

Depending on the scope and impact of the proposed change, approval by one or more of the following individuals may be required.

- Operations Manager
- Application Development Manager
- Network & Technical Services Manager.

Level 4 Changes

A Level 4 Change would have a major impact on IT services if a problem occurs during install. The install time is lengthy and the backout is very difficult or impossible.

Level 4 Change Requests are to be entered into the Change Management Data Base at least thirty (30) business days prior to the planned implementation date.

The Requester or representative for a Level 1 change is required to attend the Change Communication meeting immediately prior to implementation so that any questions or concerns may be addressed.

Whenever a Level 4 change must be expedited to address a critical timing situation, a special meeting must be held. To expedite a Level 4 change, all parties that may be affected by this change **must** be present or represented at the special meeting. It is the responsibility of the change requester to arrange the meeting and assure attendance by the required groups or individuals. If the required groups or individuals cannot be assembled, the change cannot be expedited and an escalation will be required.

How do you know that the change falls under Level 4?

For non-application changes:

- From the end user's eyes, is it possible for the change to have a major impact on services if problems occur?
- Is the change visible to all end users?
- Is this a high-risk change?
- Is this the first time this change has been done?
- Is the change difficult or impossible to backout?
- Is it extremely difficult to install the change?
- Does the change involve a lengthy install time?

For application changes:

- Would failure of the job being changed stop the flow of all jobs for critical files or an application system?

What types of management approval is required for Level 4 changes?

Approval required by:

- Change Review Board
- Manager of user department requesting change

Depending on the scope and impact of the proposed change, approval by one or more of the following individuals may be required.

- Operations Manager
- Application Development Manager
- Network & Technical Services Manager.

Level 3 Changes

A Level 3 Change may impact a large number of end users. It is a high-risk change that requires a significant effort to backout.

Level 3 Change Requests must be entered into the Change Management database fifteen (15) business days prior to implementation.

All Level 3 changes will be communicated via the Change Management reporting system.

The requester or representative for a Level 3 change is required to attend the Change Communication Meeting immediately prior to implementation so that any questions or concerns may be addressed.

How do you know that the change falls under Level 3?

For non-application changes:

- Will the change be visible to a large number of end users?
- Is this a high-risk change?
- Has the change been done only infrequently?
- Will a significant effort be required to backout the change?
- Is it difficult to install the change?

For application changes:

- Would failure of the job being changed stop the flow of jobs for non-critical files or applications?

What types of management approval is required for Level 3 changes?

Approval required by:

- Manager of user department requesting change
- Network & Technical Services Manager
- Change Review Board

Level 2 Changes

A Level 2 Change is not transparent, but is minimal in risk and impact. It is the responsibility of the Requester to notify any areas of a potential impact. The change is a Level 2 if it requires an IPL of a system, subsystem or the restart of a critical component on a production system. Level 2 Change Requests must be entered into the Change Management database prior to the Scheduled Change Window being requested.

The Requester or representative for a Level 2 change is required to attend the Change Communication meeting immediately prior to planned implementation so that any questions or concerns may be addressed.

All Level 2 changes will be communicated via the Change Management reporting system and will be tracked and reported by the Change/Problem Coordinator.

Examples of Level 2 changes:

- Single fixes - APAR, PTF, etc.
- Low usage program product upgrades, installations
- PARMLIB updates which require an IPL to implement
- Regular maintenance updates to system or application libraries
- Hardware Preventative Maintenance
- Data management to critical volumes

How do you know that the change falls under Level 2?

For non-application changes:

- Will the change have only minor impact on services provided to the end users if problems occur?
- Will the change be visible only to a small group of end users?
- Is this a moderate risk change?
- Is the change relatively simple to install?
- Has the change been implemented successfully a number of times before?
- Does it require only a moderate effort to backout the change quickly?
- Will it require only an IPL, recycle of major application or reloading of an NCP to implement or backout?

For application changes:

- Is this the first time the job has been installed?
- Must this job be fixed to run tonight?

What types of management approval is required for Level 2 changes?

Approval required by:

- Manager of user department requesting change
- Change Review Board

Level 1 Changes

A Level 1 Change has little or no external visibility, no external dependencies or no operator intervention. There is no associated risk or impact with the change, either to the system if the change is incompatible or to the Requester if the change implementation is delayed. The change does not require an IPL or recycle of an application to implement or backout.

Level 1 changes are entered into the Change data base and will be communicated daily to any affected areas where impact or interest can be identified outside of the Requester's own area.

How do you know that the change falls under Level 1?

For non-application changes:

- Will the change have only minimal or no impact on services provided to the end users if a problem occurs?
- Is the change familiar or common to those who will implement it?
- Is the change reliable and low risk?

- Is the change easy to backout if a problem occurs?
- Can it be backed out without an IPL, recycle of a major application, or reloading of an NCP?

For application changes:

- Would failure of the job stop just this job?
- Is this a low priority job (target within three days)?

What types of management approval is required for Level 1 changes?

Approval required by:

- Manager of user department requesting change
- Change Review Board

Change Level Summary Table

The following table is a guide for establishing the initial change level.

Considerations	Level 1 (Minimal Risk)	Level 2 (Low Risk)	Level 3 (Medium Risk)	Level 4 (High Risk)
Organizational Visibility of Change or Financial Exposure	Routine IT activity or minimal financial exposure	Visible to Directors or Principals or low financial exposure	Visible to the Board level or medium financial exposure	Visible to the Board level, high financial exposure or negative external publicity
Impact to other Systems or Applications	None	1 other system or application related to change	2 - 3 other systems or applications related to change	4 or more systems or applications related to change
Back Out Effort	Minimal	Back out In place and easily executed	Back out possible, though not easily executed	Back out difficult, impossible or undesirable
Business Process Change	Minimal	Little change required	Moderate change required by IT and/or customers	Considerable and complex change required by IT and/or customers
Scope of Change	Single component, such as hardware, software or network on one platform	Two such components on one platform	Hardware & software & network on one platform	Hardware & software & network across platforms
Degree of Visibility to IT Customers	Minimal	Low	Medium	High
Change Experience	Existing technology, considerable experience	Existing technology, some experience	New technology, limited experience	New technology, no experience
Expected Time to Complete	1 month or less	1 quarter or less	6 months or less	Greater than 6 months or mandated due date

Risk/Complexity Scoring

The following matrix is designed to assist the Change Sponsor, Change Implementer, Change Requester and the Change Review Board in determining the appropriate assignment of the change category. This is only a guideline, as changes may be categorized at a different level based on management judgment of the risk/complexity involved.

Factor:	Points
Organizational Visibility of Change or Financial Exposure:	
Visible to Executive Vice President level, high financial exposure or negative external publicity	1
Visible to Senior Vice President level or medium financial exposure	2
Visible to First Vice President level or low financial exposure	3
Routine IT Activity or minimal financial exposure	4
Impact to other Systems or Applications:	
4 or more systems or applications related to change	1
2 - 3 other systems or applications related to change	2
1 other system or application related to change	3
None	4
Back Out Effort:	
Back out difficult, impossible or undesirable	1
Back out possible, through not easily executed	2
Back put in place and easily executed	3
Minimal	4
Business Process Change:	
Considerable and complex change required by IT and/or the customers	1
Moderate change required by IT and/or the customers	2
Little change required	3
Minimal	4
Scope of Change:	
Hardware & software & network across platforms	1
Hardware & software & network on one platform	2
Two components on one platform	3

Factor:	Points
Single component	4
Degree of Visibility to IT Customers:	
Minimal	1
Low	2
Medium	3
High	4
Change Experience:	
New technology, no experience	1
New technology, limited experience	2
Existing technology, some experience	3
Existing technology, considerable experience	4
Expected Time to Complete:	
Greater than six months or mandated due date	1
6 months or less	2
1 quarter or less	3
1 month or less	4

Risk/Complexity Scoring Grid

If the Total Score Equals:	Then Risk/Complexity Level Assigned is:
8 - 14	4(Maximum)
15 - 20	3
21 - 26	2
27 - 32	1(Minimum)

Summary of the XX Change Management Procedures

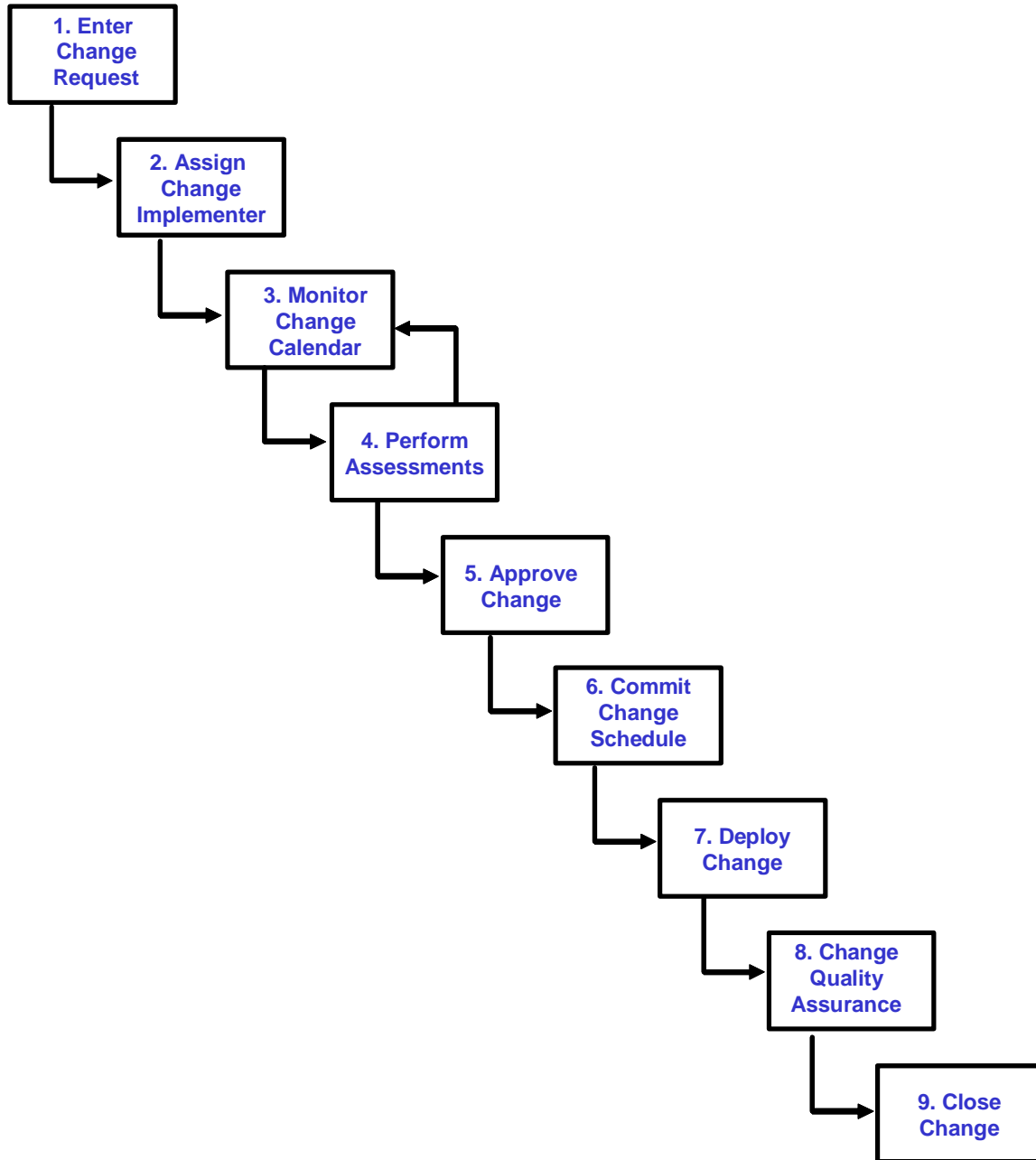
The following are the procedures to be used when implementing changes in the XX IT environment. A more detailed explanation of these procedures is contained in the following pages:

- A change request form will be filled in for all changes to be implemented. This is done to ensure that all changes are sufficiently communicated to all potentially impacted parties as well as for future reference. All changes must have management approval commensurate with their risk assessment levels (see Change Request Form section).
- There is a group called the Change Review Board (CRB) that meets periodically to review requests for change to the IT environment, change assessments and implementation of changes (see XX Change Review Board section).
- All requested changes will be entered into the Change Management System prior to implementation. This includes Emergency and Exception Changes.
- The requester will assign the appropriate risk assessment category (1, 2, 3, 4, or E), taking into account the impact to the user community in the event of failure of the change upon implementation (see Change Level section).
- Once the request is submitted, a Technical Assessment will be scheduled. This is a review of the request by appropriate parties to determine the technical impact of the change to the environment. This review will encompass:
 - Technical Impact/Risk Analysis
 - Technical Adequacy of plans
 - Dependencies and/or conflicts
 - Ensuring compliance with existing Strategies, Plans and Change Management Standards
- The resulting analysis of this assessment is a key input into the change approval process.
- A Business Assessment is then done to determine the business impact of installing or not installing the change. The resulting analysis also becomes a key input into the change approval process.
- Once the Technical and Business Assessments are successfully completed, change approval can be given. This is done at any one of the three Change Team meetings which take place weekly (see Meetings section). At this time, the change team assigns a date and time for change implementation. As part of the approval process, it is assumed that, as one of the criteria for approval of the change request, the requester's manager has ensured that the proper testing procedures have been followed and that there was a successful test completed (see Management Approval section).
- The change implementation is complete when the requester validates that the acceptance criteria, defined prior to the change install, have been successfully met.

- Tracking of the change by the change team stops after the change has been installed and is verified as successful.

Change Request Flows

High Level Process Flow



1. Enter Change Request Flow

Description

The Enter Change Request flow begins when a change request is submitted. In this activity, all required information about the change and supporting documentation is entered into the Change Management system. The change request should be submitted in accordance with the time frame required by the initial impact assessment.

Scope Inclusion

- All changes, including software, hardware, control mechanisms, configurations, environments, facilities, databases, business applications, processes, and procedures.

Scope Exclusion

- Development activities that produce the actual change content.
- The coordination of sets of changes (i.e., project coordination).
- Testing of the change package.

Goal(s)

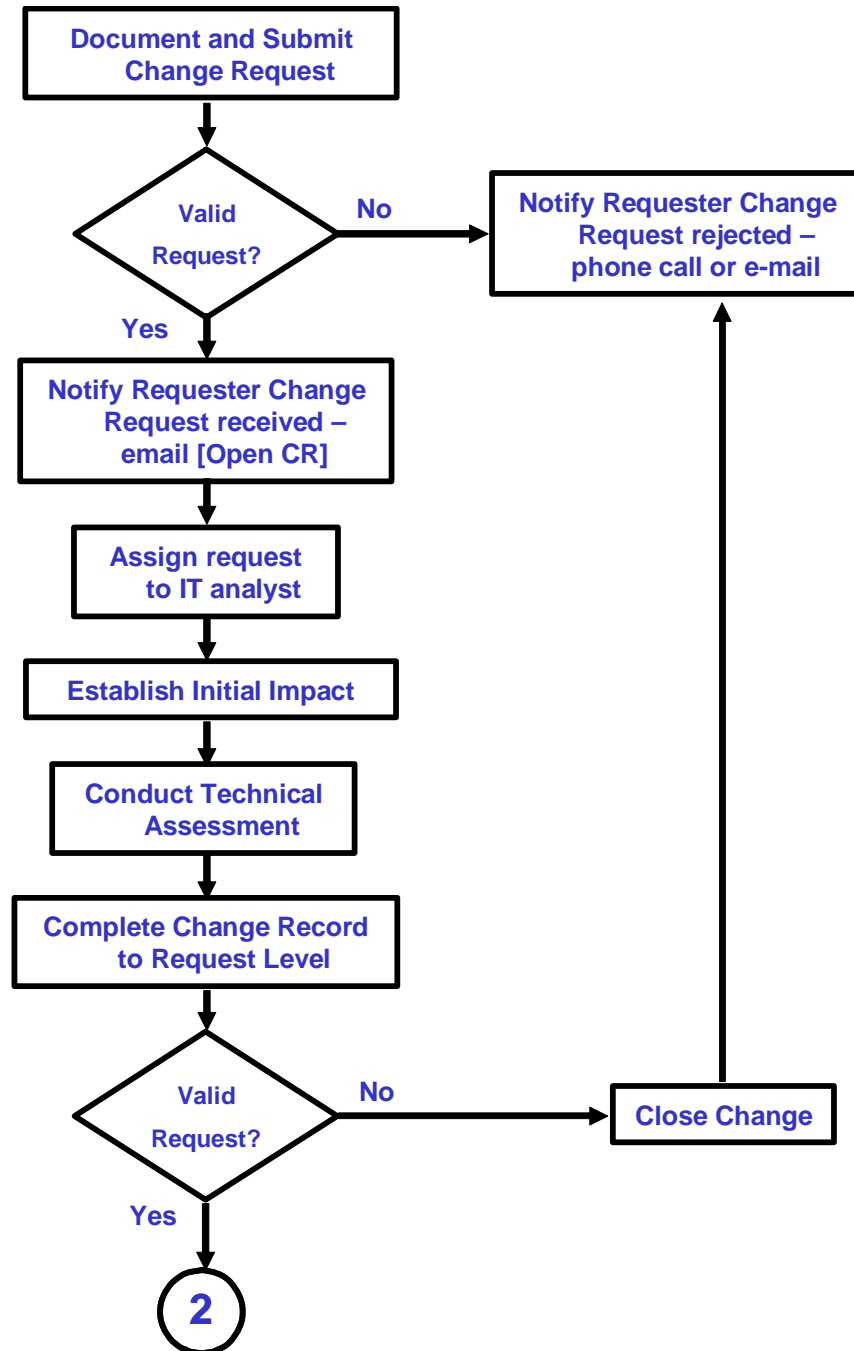
- To introduce changes into the environment with minimal disruption to information technology and its users.
- To communicate such that all affected users are aware of changes.
- To log all changes into the change management system.
- To ensure all pertinent change information is collected.
- To ensure all changes meet lead time criteria.

Start Trigger

- Change Request

Stop Trigger

- Fully documented and approved change request.

Workflow Diagram for Enter Change Request**Workflow Details for Enter Change Request**

- *Document and Submit Change Request*
Collect system change request and begin preliminary review of the change.
- *Valid Request?*

Determine whether or not to submit change request into change management system based on whether the request form has a managers signature, it is within IT responsibility, and filled in correctly.

- *Notify Requester Change Request rejected – phone call or e-mail*
If change request is rejected, provide a form of notification.
- *Notify Requester Change Request received – email [Open CR]*
If change request is approved for the change management system, a change record is opened and a change number is assigned. A notification is auto-sent to the change requester by Peregrine.
- *Assign request to IT analyst*
Assign the change request to an initial analyst to review the change record.
- *Establish Initial Impact*
Determine impact of the change to the customer community. This will include times when service is not available, testing time, new procedures, new support requirements, and any other impact that may occur as a result of the change.
- *Conduct Technical Assessment*
Determine the feasibility of the change from a technical perspective. This assessment will include the amount of resources, level of knowledge, and skills necessary for the change.
- *Complete Change Record to Request Level*
Based on initial impact and technical assessment, determine the type and category level of change, and complete all descriptive fields. Additionally, the completeness of the change success criteria is validated.
- *Valid Request?*
Based on the initial assessments, determine whether to perform this change. This decision is based on the change conforming to the strategy, resources being available, and whether or not it is already being worked on.
- *Close Change*
Mark change record as closed when it doesn't pass validation requirements.

2. Assign Change Implementer Flow

Description

The Assign Change Implementer flow begins once a change request has been documented and selected for the change management process. During this workflow, a change record is assigned to an appropriate owner, the change record is updated with this assignee information, and the change is sent to the assignee.

Scope Inclusion

- All changes reviewed by the Change Review Board.

Scope Exclusion

- Changes not accepted by the Change Management process or Changes not reviewed by the Change Review Board.

Goal(s)

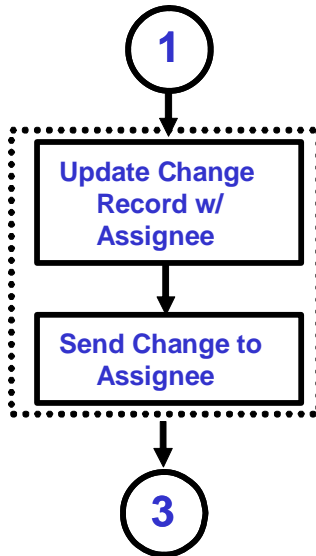
- To ensure that change requests are assigned to appropriate implementers.
- To ensure that the change management workload is allocated by area of expertise.
- To balance workload within an area of expertise.

Start Trigger

- Initial change record.

Stop Trigger

- Initial change record is assigned to an owner.

Workflow Diagram for Assign Change Implementer**Workflow Details for Assign Change Implementer**

- *Update Change Record w/ Assignee*
Assign the change an owner based on the classification of the change.
- *Send Change to Assignee*
Place the assignee information into the change record and send an e-mail notification to the assignee.

3. Monitor Change Calendar Flow

Description

The Monitor Change Calendar flow determines the scheduling for changes to be deployed. During this workflow, changes are penciled into a calendar, and the schedule is monitored for changes that are completed or have run out of time in their scheduled change deployment window. If time has expired for a change then it can be escalated and rescheduled based on escalation standards.

Scope Inclusion

- Changes that are formally put into the change calendar.

Scope Exclusion

- Changes that are not formally put into the change calendar.

Goal(s)

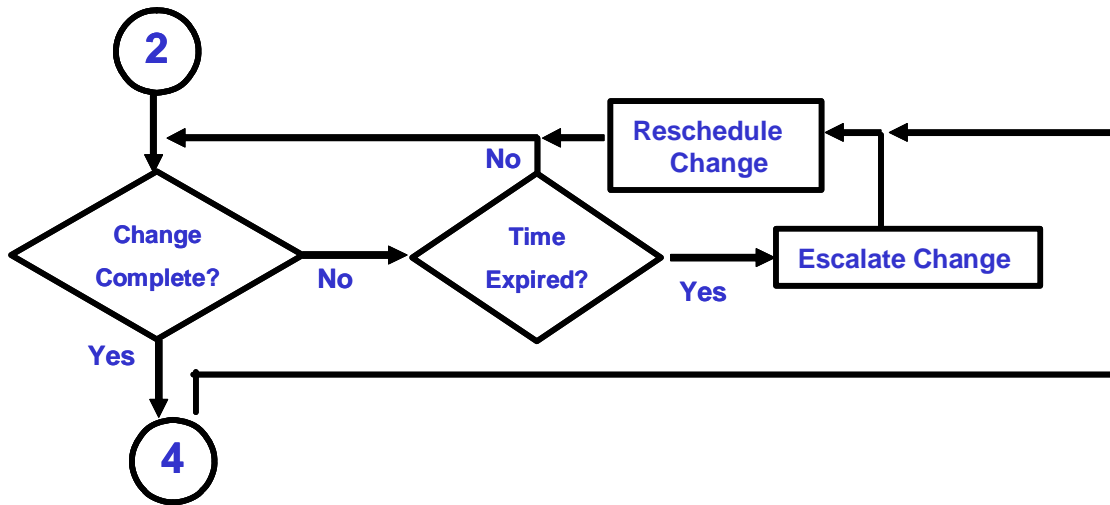
- Monitor the change calendar for changes that have not been completed and have run out of time for the purpose of change escalation.
- Allow for changes to be rescheduled.
- Allow for changes to be removed from the change calendar upon completion.

Start Trigger

- A change request has been assigned an owner and has been sent to that assignee.

Stop Trigger

- A change is complete and removed from the calendar.

Workflow Diagram for Monitor Change Calendar**Workflow Details for Monitor Change Calendar**

- *Change Complete?*
Monitor the change calendar for change work that has been completed.
- *Time Expired?*
Determine whether a change record that is incomplete has run out of time.
- *Escalate Change*
Reclassify the change to a higher change category level if time has expired.
- *Reschedule Change*
Update the calendar with a schedule for the change after it has been escalated or if the change package is incomplete.

4. Perform Assessments Flow

Description

The Perform Assessments flow involves conducting both a business and technical review of the change package. The assessments determine if the change package is complete and can therefore continue through the change management process.

Specifically, the perform business assessment flow involves validating the impact of the proposed change on XX from a business perspective, evaluating the completeness of the success criteria and communication plan and reviewing the backup / backout / recovery plans. The assessment looks at the proposed timing of the change and ensures that the customer's management has given the agreement necessary for the change to be approved and scheduled. Standards, business requirements, and SLAs are reviewed and a recommendation is made to approve, reject, or reschedule the change.

The perform technical assessment flow reviews the completeness of the change plan, test plan, backup / backout / recovery plans, platform impact assessment, estimated install time, etc. from a technical perspective. The change success criteria are validated and the impact of the change to the environment is reviewed to ensure it has been accurately evaluated. Technical standards are enforced and a decision is made to approve, reject, or reschedule the change.

Scope Inclusion

- All documented changes with a change category that requires a formal business or technical assessment.

Scope Exclusion

- Changes with change categories that specifically do not require formal business or technical assessments.

Goal(s)

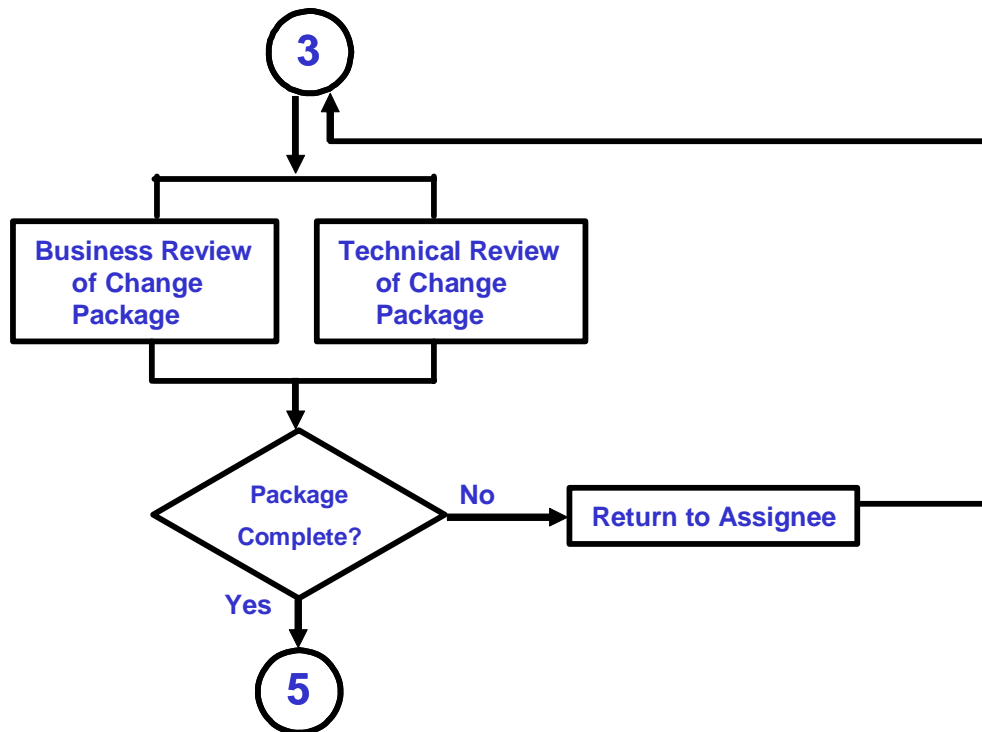
- To ensure that all factors have been taken into consideration in terms of the business aspects of the change.
- To ensure that all factors have been taken into consideration in terms of the technical aspects of the change.
- To ensure that everything required to deploy the change and to maintain service is included in the change request.

Start Trigger

- Fully documented change record.

Stop Trigger

- Assessed (business or technical) change

Workflow Diagram for Perform Assessments**Workflow Details for Perform Assessments**

- *Business Review of Change Package*
Review the change package for the following points:
 - Ensure that the business requirements will be met.
 - Verify existence and completeness of backup / backout recovery plans.
 - Verify existence of test plans, including the testers names and expected results.
 - Ensure that the change conforms to business standards and policies.
 - Determine whether the change conforms to service level agreements.
 - Review communication plan for change.
- *Technical Review of Change Package*
Review the change package for the following points:
 - Determine the impact on the technical environment.
 - Ensure that the change conforms to technical standards.
 - Verify the completeness of the change plan.
- *Package Complete?*

Make a decision on whether the package is complete based on the results of the business and technical reviews.

- *Return to Assignee*

If the package is determined not complete than the change is returned to the assignee and can be rescheduled.

5. Approve Change Flow

Description

The Approve Change flow is initiated as soon as both the business and technical assessments have been completed. If the change is approved, it is passed on to the next sub-process to finalize scheduling. If the change is rejected or determined to be rescheduled, it may be sent back to the business or technical assessment sub-processes once the necessary actions are taken. All parties that have been involved to this point in the process should be notified of the approval, rejection or rescheduling.

Scope Inclusion

- All changes that have been forwarded for approval from a business and technical perspective and whose change categories indicate the requirement for formal approval.

Scope Exclusion

- Changes with change categories that specifically do not require formal approval.

Goal(s)

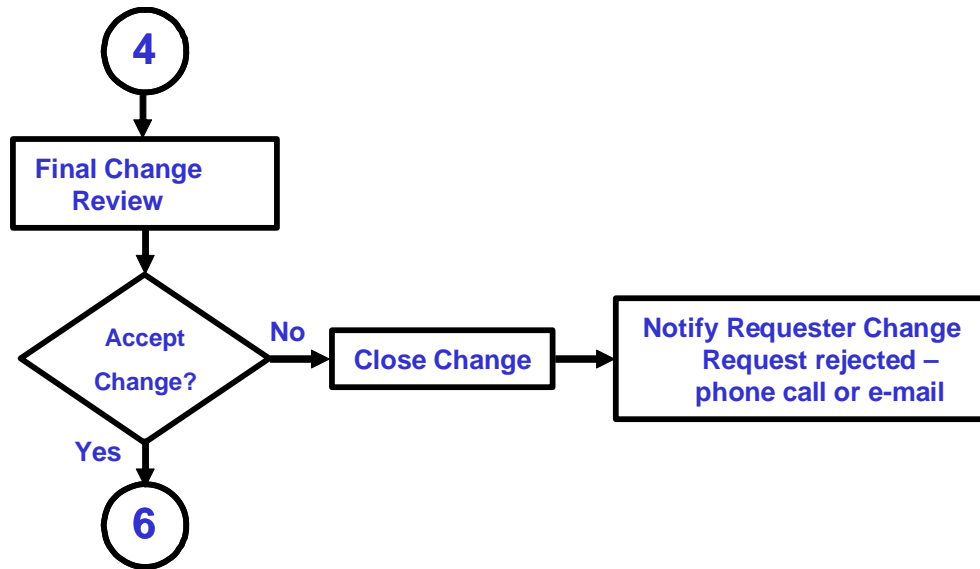
- To ensure that appropriate approval is obtained for change requests.
- To ensure that the change record is properly updated.
- To minimize service interruption.

Start Trigger

- Completed change record with business and technical review including recommendation.

Stop Trigger

- Approval for change deployment.

Workflow Diagram for Approve Change**Workflow Details for Approve Change**

- *Final Change Review*
Final review of change prior to acceptance and scheduling.
- *Accept Change?*
Based on the result of the final change review, determine whether to go ahead with or close the change.
- *Close Change*
If it is decided not to continue with change, then change record is closed by change coordinator.
- *Notify Requester Change Request rejected – phone call or e-mail*

6. Commit Change Schedule Flow

Description

During this sub-process, a consolidated change schedule is compiled for all approved changes for a particular period of time. Any conflicts between changes are resolved at this point and a final schedule is produced. This sub-process is also responsible for performing the activities needed to communicate the change schedule and gain agreement from the Change Implementers and Requesters regarding implementation dates. All affected parties are given final notification.

Scope Inclusion

- Includes scheduling around resource constraints and backout times.
- The combination of all approved changes to ensure there are no conflicts during a given period of time.
- Negotiation of schedule changes due to conflicts.

Scope Exclusion

- Emergency changes.
- Changes not requiring scheduling (i.e., those changes which have no impact on business / users – adding printers, adding users)
- Assignment of personnel or resources

Goal(s)

- To ensure all changes are properly scheduled for a particular period of time.
- To ensure those responsible for service delivery are informed about the final change.

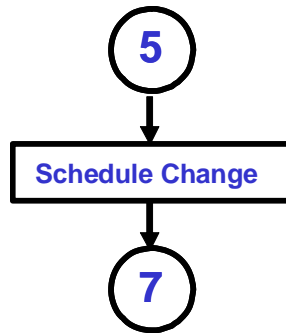
Start Trigger

- Approved change record with completed technical and business reviews.
- Current consolidated change schedule.

Stop Trigger

- Scheduled change.

Workflow Diagram for Commit Change Schedule



Workflow Details for Commit Change Schedule

- *Schedule Change*
Commit the change to the change schedule.

7. Deploy Change Flow

Description

The deploy change flow is where the change is actually implemented. Upon the completion of the implementation, a user acceptance test is conducted to determine whether or not the change was successfully installed. If the change implementation is not successful, then it is determined if it can be fixed. If it can be, then it is re-implemented and acceptance tested.

Scope Inclusion

- Change requests that require a formal implementation and user acceptance testing process.

Scope Exclusion

- Change requests that do not require formal implementation and user acceptance testing processes.

Goal(s)

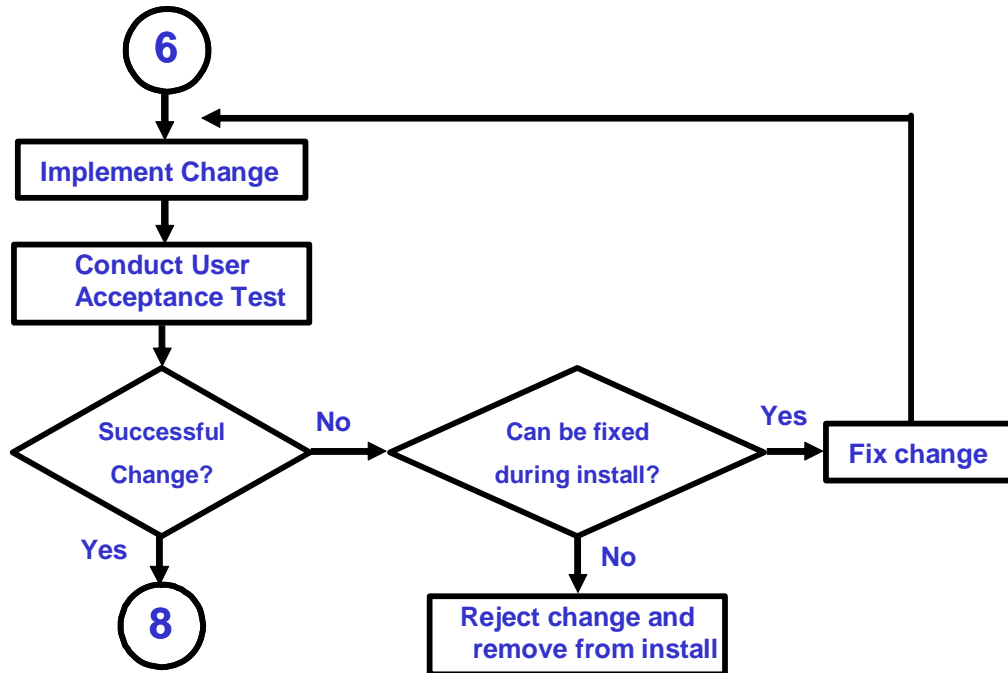
- To determine whether the deployed change was successful or not.
- Allow for the unsuccessful change installations to be fixed and re-tested.

Start Trigger

- A change request has been scheduled for deployment.

Stop Trigger

- A change request has been successfully deployed.

Workflow Diagram for Deploy Change**Workflow Details for Deploy Change**

- *Implement Change*
Deploy the change and execute the test plan.
- *Conduct User Acceptance Test*
Perform a user acceptance test to determine whether or not the change was deployed successfully.
- *Successful Change?*
- *Can be fixed during install?*
Determine whether or not a change can be fixed during install or if it needs to be rejected and removed.
- *Fix change*
Modify the change record to record any change fixing activity. Perform the fixes and then re-deploy and re-test.
- *Reject change and remove from install*
Send out notifications to requester that the change has been rejected. Determine whether or not the change will be rescheduled or restarted.

8. Assure Change Quality Flow

Description

The Assure Change Quality flow is a post-change workflow that reviews the change request process. During this workflow, the change management process can be updated and lessons learned are collected. This information is used to make continuous improvements on the change management process.

Scope Inclusion

- Changes that formally go through the change management process.

Scope Exclusion

- Changes that do not formally go through the change management process.

Goal(s)

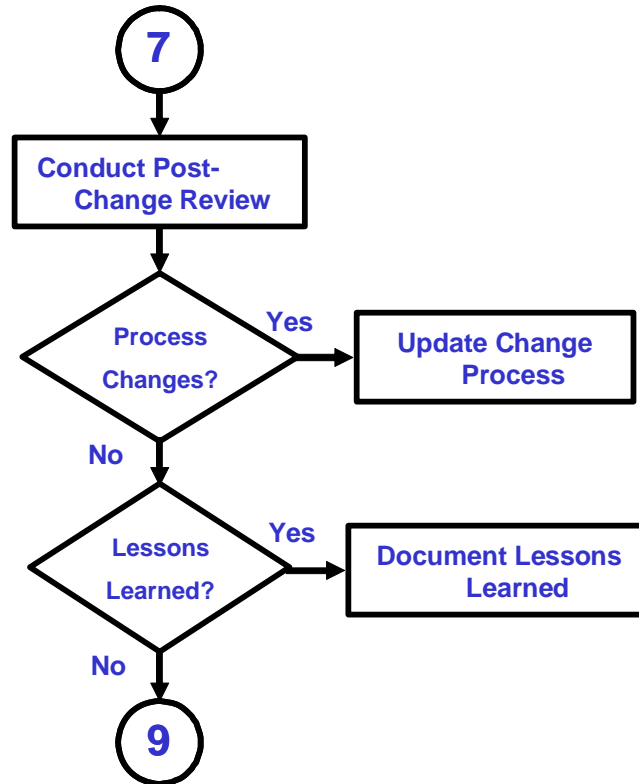
- Ensure that the change management process is continuously improved.
- Allow a mechanism to collect lessons learned for future change management updates.

Start Trigger

- A change is deployed or cancelled.

Stop Trigger

- A post-change review has been conducted and process improvements and lessons learned have been extracted.

Workflow Diagram for Assure Change Quality**Workflow Details for Assure Change Quality**

- *Conduct Post-Change Review*
Conduct a review of the change management process to determine what went wrong, what went right, and what changes to make to the process.
- *Process Changes?*
- *Updated Change Process*
If changes to the process are identified, then recommend these changes be made to improve the process.
- *Lessons Learned?*
- *Document Lessons Learned*
Document any lessons learned that were uncovered during the post-change review. Use the lessons learned to recommend changes to procedures.

9. Close Change Flow

Description

The Close Change flow is used to close changes that have been deployed or cancelled following a post-change review. After a change is closed, the problem management system is notified of change activity and requesters are notified of change closure.

Scope Inclusion

- All deployed changes
- All cancelled changes

Scope Exclusion

- None

Goal(s)

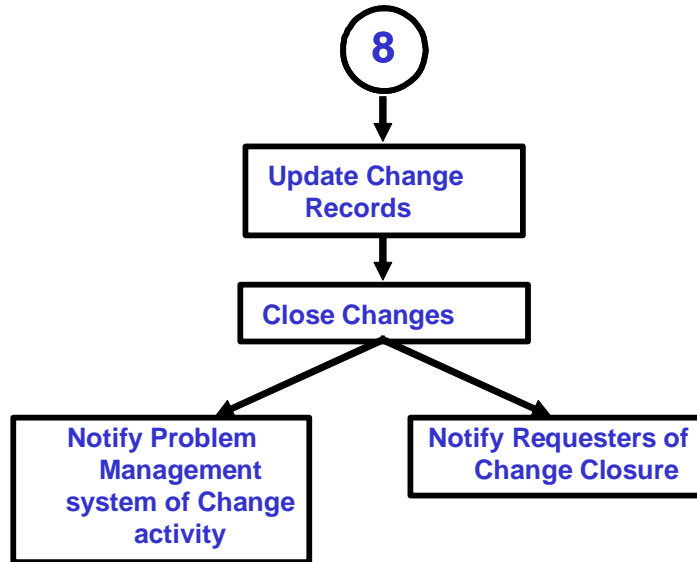
- To close change records with all required information.

Start Trigger

- Change record where deployment has been indicated as complete.
- Cancelled change record.

Stop Trigger

- Closed change request.

Workflow Diagram for Close Change**Workflow Details for Close Change**

- *Update Change Records*
Update the change records with emergency change documentation, implementation activity, and problem activity.
- *Close Changes*
Change coordinator changes the status of the change record to closed.
- *Notify Problem Management system of Change activity*
The problem management system is notified of changes so that the help desk can notify appropriate backout / recovery personnel if needed.
- *Notify Requestors of Change Closure*
Send an automated e-mail to the change requester to inform them of change closure.

Change Request Form

The following page contains the Request for Change form. The following is a description of what should be entered into each section of that form:

- *DATE REQUESTED* - The date the request was submitted to the Change Review Board (MM/DD/YY)
- *DATE PLANNED* - The date the requester would like to implement the change (MM/DD/YY)
- *PEREGRINE NUMBER* - The unique Change Request number assigned by the Change Management System. This number should be used in all communications pertaining to this change.
- *REASON FOR CHANGE* - The business and/or technical justification for the change.
- *DESCRIPTION OF CHANGE* - A detailed description of what the requester wishes to change and what is to be accomplished as a result of the change.
- *REQUEST CATEGORY* – The scope of the change, i.e., to which environment it applies
- *PROJECT CATEGORY* – The size or complexity of the project.
- *CHANGE TYPE* – Whether the change applies to the Administrative environment or the Instructional environment
- *RISK ASSESSMENT CATEGORY* - The category of risk that the requester has determined the change should be assigned.
- *USER ACCEPTANCE CRITERIA DEFINED AND AGREED TO?* – This YES or NO question is to insure that the individual responsible for accepting the change on behalf of the users has defined the means for IT to judge the quality of the installation.
- *CHANGE REQUESTED BY* - The name of the person requesting the change.
- *LOCATION* – Location of the requester or location of the change (system)?
- *CHANGE AUTHORIZED BY* - (For applications or systems changes where there is an owner (e.g., Chauncery or SIS) - The signature of the Owner of the system or application.
- *CHANGE APPROVED BY* - The signature of the approver(s) of the change. This may be singular or multiple based on the risk category of the change.
- *DISPOSITION* – The status of the change after review by the approver. Can be approved, conditionally approved or rejected.
- *INDIVIDUAL RESPONSIBLE FOR IMPLEMENTATION* - The name of the person responsible for actually implementing the change. This is, quite often, different than the requester.
- *INDIVIDUALS RESPONSIBLE FOR TEST* - The name(s) of the person responsible for the unit and systems test as well as the name of the user responsible for user acceptance test.
- *TEST SCHEDULE* - The end dates the unit, system and user acceptance testing will be completed (MM/DD/YY).
- *COMMUNICATION PLAN* - The plan to notify all potentially affected users of the change.
- *USER MANUALS AND OPERATING INSTRUCTIONS UPDATED* - The manuals and instructions which have to be updated as a result of the change and the target completion date for those updates.
- *FALLBACK PROCEDURE* - The actions to be taken by the operations staff in case of unsuccessful implementation of the change.

- *DATE IMPLEMENTED* - The date that the change was implemented or tried to be implemented (MM/DD/YY).
- *TIME IMPLEMENTED* - The start time of the implementation (HH:MM).
- *CHANGE IMPLEMENTED BY* - The person who performed the implementation.
- *CHANGE ACCEPTED BY* – The person accepting the change on behalf of the change requester.
- *DATE CHANGE RECORD CLOSED* – The date that the Change Request was closed in the Change Management system and the person closing the change request.

The {blue text} on the form indicates that the item appears on the XX-0028 form but not on the XXX form. It should be added to the XX Change Record.

The (red text) on the form indicates items that are not on the XX-0028 form but are on the XXX form. The items should be on the XX Change Record.

The black text on the form indicates that the item appears on both forms and the [bracketed text] is the name of the item on the XX-0028 form.

CHANGE REQUEST FORM

DATE REQUESTED ____ [Date] _____ DATE PLANNED_ [Target Completion Date] _____

PEREGRINE CHANGE NUMBER _____ [Control No.] _____

REASON FOR CHANGE _____ [Justification for Request] _____

DESCRIPTIONS OF CHANGE _____ [Nature of Request] _____

{REQUEST CATEGORY: __LOCAL __DISTRICT MISSION __STATE __FEDERAL __OTHER}

{PROJECT CATEGORY: __MAJOR __MODERATE __MINOR __AD HOC}

{CHANGE TYPE: ADMINISTRATIVE _____ INSTRUCTIONAL _____}

(RISK ASSESSMENT CATEGORY _____)

(USER ACCEPTANCE CRITERIA DEFINED AND AGREED TO? YES ____ NO ____)

CHANGE REQUESTED BY _____ [Submitted by:] _____

{LOCATION _____}

CHANGE AUTHORIZED BY _____ [Approved by:] _____

(CHANGE APPROVED

BY _____)

{DISPOSITION: __APPROVED FOR IMMEDIATE WORK

__APPROVED AS PRIORITIZED

__APPROVED FOR FURTHER INVESTIGATION (Cost/Benefit, Impact Analysis)

__REQUEST REJECTED

Explanation: _____}

{TARGET BEGIN DATE: _____}

INDIVIDUAL RESPONSIBLE FOR IMPLEMENTATION _____ [Assigned to:] _____

(INDIVIDUAL RESPONSIBLE FOR UNIT TEST _____)

(INDIVIDUAL RESPONSIBLE FOR SYSTEM TEST _____)

(INDIVIDUAL RESPONSIBLE FOR USER ACCEPTANCE TEST _____)

(TEST SCHEDULE - UNIT TEST END DATE _____)

(SYSTEM TEST END DATE _____)

(USER ACCEPTANCE TEST END DATE _____)

(COMMUNICATION PLAN _____)

(_____)

(USER MANUALS AND OPERATING INSTRUCTIONS TO BE UPDATED _____)

(_____)

(FALLBACK / BACKOUT PROCEDURE _____)

(_____)

(DATE IMPLEMENTED - _____ TIME IMPLEMENTED - _____)

(CHANGE IMPLEMENTED BY - _____ ACCEPTED BY - _____)

(IMPLEMENTATION COMMENTS - _____)

(DATE CHANGE RECORD CLOSED - _____ BY _____)

Scheduled Change Windows

To maintain 7x24 stability and achieve IT Service Level Commitments, Information Technology has established predetermined dates and times for implementing changes. These dates and times are as follows:

Wednesday Night/Thursday Morning Change Window

- Midnight - 08:00

Friday Night through Monday Morning Change Windows

- Midnight Friday - 08:00 Saturday
- Midnight Saturday 08:00 Sunday
- Midnight Sunday - 08:00 Sunday

When requesting a stand-alone window, please notify the Change/Problem Coordinator at least two weeks prior to the requirement. The Wednesday/Thursday change window is for quick problem repair and Level 3 and 4 changes. Changes that require detailed activity or extensive programmer hands-on time or intervention should be scheduled in the weekend windows.

Emergency changes that fall outside the change windows and can be performed by Operations should be scheduled on second or third shift.

Lead Times for Changes

The following guidelines for entering a change request allow time for changes to be coordinated more efficiently. These guidelines highlight the number of days from initial request until installation. The earlier a change is entered into the system, the better communication it will receive through the Change Process. Coordination with other affected departments and notification of users remains a responsibility of the requester.

- Level 4 - 1 workday
- Level 3 - 3 workdays
- Level 2 - 15 workdays
- Level 1 - 30 workdays

Unsuccessful Changes

The following guidelines will be used to determine if a change has been unsuccessful (CU) or caused an outage (CO) to service.

- Expected results did not occur.
- Change caused an impact to the User or Operations.
- Change must be backed out.
- Incomplete instructions or inaccurate documentation provided to Operations.
- Change could not be installed in requested time period.
- Problem opened as a direct result of the change
 - Level E Change - problem severity 1,2,3,4
 - Level 1 Change - problem severity 1,2,3
 - Level 2 Change - problem severity 1,2,3
 - Level 3 Change - problem severity 1,2
 - Level 4 Change - problem severity 1,2

Unsuccessful Changes

For any change that is closed CU (Change Unsuccessful), the Change Requester must enter into the Change Request the reason(s) why the change was unsuccessful. The requester must also enter another change request into the system before the change will be attempted or scheduled again. The level of the new change request will be the same as the original; however, the new change request will have to cycle through the complete approval process again.

Changes Causing Outages

A change that was attempted or implemented and caused a disruption of committed service delivered by Information Technology to the user will be closed as causing an outage (CO). For any change which is closed as CO, the Change Requester must enter into the Change Request the reason(s) why and how the outage occurred. The requester must enter another change request into the system before it will be attempted or scheduled again. The level of the new change request will be the same as the original; however, the new change request will have to cycle through the approval process again.

Changes Causing Intervention

The Closed Intervention (CI) status will be used to indicate a change that was installed successfully but required unplanned intervention from applications programmers, systems programmers, users, analysts or operations personnel after normal business hours.

Canceled Changes

A change that was entered and later canceled will be closed as Change Canceled (CC). For any change that is closed CC, the Change Requester must enter into the Change Request the reason(s) why the change was canceled. The Requester must enter another change in the system before it is attempted again. The level of the new change request will be the same as the original. The resubmission requirements for the new change will be negotiated between the Change Coordinator and the Change Requester.

Postponed Changes

A change that was scheduled but during the installation process could not be safely promoted (ran out of time, potential scheduling impact found, etc.) will be coded as a Postponed Change (PC). The change will be automatically rescheduled for the next Change Window.

Roles and Responsibilities

Change Review Board

The Change Review Board (CRB) is a team of people made up of IT management and subject matter experts, members of the user community, vendors and outside consultants. It is chaired by the Change Coordinator.

The mission of the Change Review Board is to plan and monitor all changes introduced into the IT environment. Responsibilities include ensuring the following things are present for every change:

- The Change Request has been submitted with the required information
- There is a business reason for the change
- A user has been identified who is totally accountable for the change
- A viable Change Plan exists
- A viable Recovery Plan exists
- A viable User Acceptance Plan exists
- A Technical Impact Assessment has been done
- A Business Impact Assessment has been done
- A Communications Plan has been developed ensuring communication to the IT and user communities of the intended change and the potential impact to them in case of failure of the implementation.
- Appropriate management approval has been obtained based on the risk assessment category.
- A post installation review of the completed change to ensure proper and successful implementation.

Change Coordinator

The Change Coordinator acts as the user's primary interface into the change process and represents their interests and the IT requirement to meet service commitments. The Change Coordinator's responsibilities for specific changes include:

- Owns, maintains and ensures accuracy and timeliness of the consolidated change schedule
- Ensures that all changes are appropriately planned and communicated
- Reviews change requests for procedural compliance, information quality and completeness
- Ensures that accurate priority and impact are assigned to change requests
- Coordinates and owns the change approval and rejection process which incorporates routing to reviewers, receiving reviewer responses and relaying appropriate information to requesters. This also includes negotiation with both parties and final ruling
- Undertakes post change reviews and owns the sign off mechanism
- Schedules and attends all meetings concerning the Change Management process
- Ensures that asset and configuration updates are only permanently applied as a result of successful and signed-off changes
- Participates in project meetings with applications development teams and the business where the subject is change impact analysis, implementation and scheduling of large changes
- Responsible for owning efficient and quality problem resolution, where Change Management service expertise is required
- Responsible for escalation and exception reporting to the Change Management Process Owner
- Complies with Change Management service standards, process and procedures as required
- Provides input to Change Management service improvement
- Provides and is responsible for the accuracy of appropriate Change Management service input to knowledge bases as a result of changes and problem resolution
- Responsible for contract management and day to day maintenance management of third party technology suppliers as a result of Change Management issues with the service
- Initiates and is a technical resource to the IMAC service where Change Management service expertise is required
- Provides a technical resource to Project Requests where Change Management service expertise requirement forms an element of the project
- Captures and reports appropriate Change Management service measurement data
- Attends appropriate problem escalation / resolution, project development and service support reviews, where Change Management service expertise is required

Change Requester

The Change Requester initiates and completes the Change Management process and has overall responsibility for accepting changes. Standards dictate who can act as a change requester. Change Requester responsibilities for given changes include:

- Owns individual changes requested and is ultimately responsible for the success of the change
- Review change request with department manager for approval
- Assess the change for risk/impact and ensure the appropriate risk category has been applied.
- Ensure that the change request is complete with accurate information at a sufficient level of detail to implement the change without intervention.
- Ensure Proper lead-time for changes is allowed. (See "Lead Time for Changes" section in this document).
- Conduct User Acceptance testing of change.
- Convene the Level 1 Expedite meeting as required.
- Communicate intention of change to all potentially affected parties.
- Notify the Change Coordinator of any change in date or time of implementation before the target date is reached. Initiates the Change Control service by completing and distributing a completed change request
- Responsible for obtaining appropriate resource for all change tasks requiring completion for change success
- Co-ordinates task documentation within a change request with other participating staff as appropriate
- Ensures that pre and co-requisites for the change are considered and completed
- Ensures completeness of reviewer distribution list as much as possible
- Attends change assessment, scheduling and review meetings, as appropriate
- Responsible for accurate representation of priority, impact and change window / time requirements
- Ensures all owned rejected changes are placed into a 'fit state' for re-submission
- Co-ordinates implementation tasks where appropriate and is responsible for any backout decisions for owned changes in conjunction with Change Control
- Updates owned change requests as required and requested
- Responsible for undertaking change tasks within the change implementation as required
- Participates in change task co-ordination meetings as part of change implementation planning

Change Implementer

The Change Management Implementer has overall responsibility for understanding the requested change; documenting its implications on both the business and the IT environments; creating, with other resources as required, the coding, system, procedure and/or process modifications required to implement the change; with the Change Requester, representing the change to the Change Review Board; monitoring and/or testing the code prior to final promotion into production and requesting change closure by the Review Board. Specific Change Implementer responsibilities include:

- Monitoring the Change Assignment process for assigned Changes
- Meeting with the Change Requester to understand the requested change and to complete the Change Request documentation
- As required, assisting the Change Requester in the preparation of a business case for the change
- With the Change Requester, presenting the Change to the Change Review Board from a technology and IT architecture perspective for approval to proceed
- Developing technology and operations impact statements
- Developing backup and/or back out plans
- Identifying and assembling the team required to create the change
- Designing and creating the code, procedures or process modifications required to effect the change
- Designing and developing the tests required to demonstrate the quality and usefulness of the change
- With the Change Requester, presenting the completed change to the Change Review Board for approval to promote into production
- Monitoring the promotion (on site or remotely) of the change into production
- Resolving issues associated with promoting the change into production, where possible
- With the Change Requester (as appropriate), participating in the review of the promotion of the change
- Requesting closure of the successful change from the Board

Change Management Process Owner

The Change Management Process Owner has overall responsibility for ensuring the quality of the Change Management process. Specific Change Management Owner responsibilities include:

- Is responsible for and owns the Change Management service
- Is responsible for development and implementation of Change Management mission and strategy, in line with XXXXX and IT strategies
- Escalates to senior management exceptions as appropriate
- Ultimately responsible for resolving Change Management service dissatisfaction
- Ensures compliance with Change Management process standards and procedures
- Has a nominated deputy to cover for service owner absence
- Sponsors and/or manages internal improvement projects to implement new technology and process improvement
- Communicates Change Management service procedures and working practices and changes to internal standards, processes, procedures and technology
- Coordinates and sets annual service requirements, objectives and targets for the Change Management service in conjunction with other IT Process Owners
- Finalizes annual service requirements, objectives and targets with the Service Request, Call Center and Problem Management Process Owners
- Attends appropriate senior management level service support and development reviews
- Involved in development of and subsequent agreement on service level targets and target improvements related to the Change Management service
- Develops requirements for Change Management standards, procedures, measurements, tools and technology in conjunction with other IT Process Owners
- Approves and sponsors Change Management improvement ideas

Service Center Administrator

The Service Center Administrator has overall responsibility for monitoring and configuring the Change and Problem Management processes. Specific Change Management responsibilities include:

- Developing requirements for Change Management standards, procedures, measurements, tools and technology in conjunction with other IT Process Owners
- Managing the tools and procedures that support Change Management
- Identifying process, procedure and tool improvements that may benefit XXXXX to the Change Review Board
- Making changes to the processes, procedures and tools that support the Change Management process as directed by the Change Review Board
- Escalating to XX senior management issues as appropriate
- Ensuring compliance with Change Management process standards and procedures
- Communicating changes to Change Management internal standards, processes, procedures and technology
- Attending appropriate senior management level service support and development reviews

Change Controller

The Change Controller is responsible for scheduling and overseeing all changes introduced into the IT production environments and service delivery infrastructure to ensure that the risk of impacting the availability of services is minimized. Specific responsibilities include:

- Monitoring Change Categories and Service Risks
- Ensuring that all Information Technology customer and Company interests are protected
- Building and maintaining the Consolidated Change Schedule:
- Integrating new changes into the existing change schedule
- Identifying conflicts in the schedule, and negotiating adjustments with the relevant parties
- Notifying affected parties that changes are scheduled and ready for implementation
- Monitoring the implementation of changes
- Handling schedule slips and escalating the appropriate parties to recover the schedule
- Identifying and resolving change assignment issues
- Managing change approval
- Facilitating the Change Review Board meetings
- Managing exceptions of rejected records
- Resolving day-to-day change coordination actions
- Accepting and managing external change input
- Monitoring regular change control measurements
- Creating, coordinating, consolidating, and monitoring the change schedule.

Change Scheduler

The Change Scheduler is a delegate of the Change Controller, responsible for the creation, coordination, consolidation, and monitoring of change schedules.

- Performs duties delegated by the Change Controller
- Represents the Change Controller on initial issues relating to the Change Schedule
- Responsible for the creation, coordination, consolidation, and monitoring of change schedules.

XX Change Review Board

Change Review Definition

The Change Review Board (CRB) is a team of people made up of IT team members supplemented, as required, by members of the user community, vendors and outside consultants. It is chaired by the Change Coordinator.

In addition to these members, other members will be included depending on the change being analyzed. For instance, if the team is analyzing a change to the Network, a Network Specialist or his or her designee will be present to help that analysis.

The mission of the Change Review Board is to plan and monitor all changes introduced into the IT environment. Responsibilities include ensuring the following things are present for every change:

- The Change Request has been submitted with the required information
- There is a business reason for the change
- A user has been identified who is totally accountable for the change
- A viable Change Plan exists
- A viable Recovery Plan exists
- A viable User Acceptance Plan exists
- A Technical Impact Assessment has been done
- A Business Impact Assessment has been done
- A Communications Plan has been developed ensuring communication to the IT and user communities of the intended change and the potential impact to them in case of failure of the implementation.
- Appropriate management approval has been obtained based on the risk assessment category.
- A post installation review of the completed change to ensure proper and successful implementation.

Change Approver Table

Change Category	Category Definition	Approver(s)
Cable / Facilities – Major	Wiring for servers, desktops, telephony, networks	
Cable / Facilities – Minor		
Firmware Upgrade – Major	Engineering changes to a device chip	
Firmware Upgrade – Minor		
Mainframe Application Software – Major		
Mainframe Application Software – Minor		
Mainframe Operating System Upgrade – Major	Changes to CIXX, OS/390...	
Network System Software – Major	Netview, VTAM	
Network System Software – Minor		
Network Hardware – Major	Changes to 8265's, 8271's, 3Com switches	
Network Hardware – Minor		
Network Security – Major	Firewalls, authentication	
Network Security – Minor		
Server Application Software Rollout – Major		
Server Application Software – Major		
Server Application Software – Minor		
Server Hardware – Major	Netfinity, disk drives, communication adapters, memory, CPU, CD drive	
Server Hardware – Minor		
Server Hardware Rollout – Major		
Server System Software – Major	Windows 2000, Windows NT, Windows XP, AIX, Linux, etc.	
Server System Software – Minor		
Telephony PBX – Major	PBX changes	
Telephony PBX – Minor		
Telephony VoIP – Major	Voice over IP changes	
Telephony VoIP – Minor		
Desktop – Major	XXX, MaXX, Dell, desktop software and hardware	
Desktop – Minor		

Meetings

The major scheduled meetings of the Change Management Process are the Change Review Board meeting. These meetings are held every Monday, Wednesday and Friday with specific agendas for each day's meeting as follows:

Monday

The Monday morning meeting of the Change Review Board is called to analyze the change activity from the previous weekend. The analysis is based on successful or unsuccessful change activity. When unsuccessful changes occur, the Change Review Board develops a plan at this meeting to address the issue. All requesters with category 1 or 2 changes scheduled for the preceding weekend or any requester whose change caused problems during the install process are represented at this meeting in addition to the Change Review Board. It takes place at 9:00 A.M. every Monday morning in the IT Conference Room.

Wednesday

The Wednesday meeting of the Change Review Board is called to plan future changes. All requests for change are presented at this time for consideration. Permanent members of the Change Team may present category 3 and 4 changes. The requester or his/her manager must present category 1 and 2 change requests. All members of the Change Review Board and any Category 1 or 2 change requesters attend this meeting. It is held every Wednesday at 9:00 A.M. in the Information Technology Conference Room. Any change to be implemented in the IT environment must be reviewed at a Wednesday or Friday meeting.

Friday

The Friday meeting of the Change Review Board is called to plan the following weekend's change schedule and analyze the change installation activity from Wednesday. The analysis is based on successful or unsuccessful change activity. When unsuccessful changes occur, the Change Review Board develops a plan at this meeting to address the issue. All requesters whose changes caused problems during the Wednesday installation must be present at the meeting.

Anyone expecting to have a change implemented over the weekend must be present at this scheduling meeting to ensure that all prerequisites have been accomplished prior to implementing the change. Category 3 or 4 change requests may be represented by permanent members of the Change Review Board on behalf of the requester; however, if total representation cannot be achieved by these substitutes, then the change will not be scheduled for that weekend. Requesters of Level 1 and 2 changes must be present for their changes to be considered for weekend implementation. This meeting is held every Friday morning at 9:00 A.M. in the Information Technology Conference Room.

XX Change Review Board Meeting Agenda

1. Review of most recent promotion into production activity

The planned promotion activity is compared to the actual activity and deviations are noted and discussed. When issues or concerns are identified that have not already been documented this activity will document them. Process quality issues are raised here.

2. Review of outstanding issues (including E-Change issues)

Issues that have been raised by the above review, the most recent promotion into production, and previous Review Board meetings are reviewed for relevance, progress toward resolution and escalation.

3. Assignment of issues or resolution of issues

Issues are assigned to individual board members for resolution. Issues that can be resolved by the Board without further assignment are resolved and documented. Issues that have been resolved are approved for closure.

4. Review of E-Change activity since last promotion

All E-Change activity since the last scheduled promotion into production window are reviewed to determine if the Emergency or Expedite status was warranted, if the packages prepared in support of the changes are complete and if the quality associated with the E-Changes is in line with the quality of Board scheduled changes.

5. Identification and assignment of issues related to recent E-Change activity

Issues with either the work done in support of individual changes or the E-Change process itself are raised, documented and assigned for resolution.

6. Review changes proposed for inclusion in the next Change Window

The changes proposed by the Change Management system are reviewed for completeness, sponsorship, business impact and technical feasibility. Together, Implementers and Change Requesters present their proposed changes to the Board for approval to proceed.

7. Review the proposed Change Schedule for potential impacts to service

Examine, with the help of technical staff, the proposed implementation schedule for the proposed changes.

8. Approve, reject or reschedule changes

Where business or technical impacts are likely to occur, evaluate the business case for proceeding and, if the risks are acceptable, approve the promotion. Authorize communication to all affected parties to apprise them of the potential impact. If the risk is not acceptable, remove the change from the promotion package. Where no business or technical impact is anticipated approve the Change for promotion.

9. Review the Change Calendar to assess its integrity

Receive requests to formally enter changes into the Change Management system. Examine the requests for completeness, business justification and technical feasibility. Review the Change Calendar for potential impacts with either the customer environment or planned change activity. Schedule a preliminary promotion date on the calendar.

10. Review the Change productivity and quality measurements

Review the metriXX for the most recent promotion activity including, number of changes promoted, number of successful changes promoted, number of changed promoted with modification, number of changes backed out of the promotion schedule and number of incident records associated with changes promoted.

11. Identify and assign for resolution issues associated with the Change Process

Evaluate the trends and, as required, modify the metriXX, the measurements, the procedures or the Change Process.

12. Review communications planned as a result of the meeting (rejections, approvals, concerns and issues)

Review with the Change Coordinator, the communications that will proceed from the meeting to ensure that all issues are communicated, all parties are included and what is being communicated is the intent of the Board.

Measurements

A number of standard reports on all changes activity are available from the Change Control Coordinator. These reports are available to anyone who has a need for the information. If interested in seeing what is available, please contact the Change Coordinator.

In addition to the standard reports available, all change activity is reported on a monthly basis in the standard Information Technology Monthly Measurement Meeting. These measurements include, at minimum, the following:

- Changes logged versus not logged
- Changes with incomplete information
- Types of changes by category
- Number of approved, rejected or rescheduled changes by type
- Number of changes by risk / impact
- Number of unsuccessful changes by failure type
- Number of changes with inadequate information
- Number of successful changes by category
- Hours of outage caused by changes
- Number of rescheduled changes

Other measurements periodically appear in the Monthly Measurements based on management requests.

Glossary

This section contains definitions of terms relevant to the Change Management process.

Term	Definition
Activation Status	Information about the result of change activation activities (that is, status and level of success / completeness of the activation).
Approval Lead Times	See Lead Times.
Approved Change Request	A change request that has been accepted, assessed and approved, and scheduled for execution.
Authorized Change Initiator	An individual authorized to the Peregrine Service Center to enter changes into the system.
Back out Execution Status	Information about the result of back out procedures.
Back out Plan	For failed changes, a plan that restores service to previously existing levels.
Back out Problem Notification	Defect information created and sent to the Problem Management process as a result of executing back out procedures.
Back out Request	A request to execute appropriate back out procedures, as defined in the change back out plan. This request is issued when the completion criteria of an implementation step has not been met.
Business Policy	Business considerations and rules that may influence the way processes are managed and executed.
Change	<p>A Change consists of any installation or alteration of hardware, system or application software, procedures, or environmental facilities, which adds to, deletes from or modifies the Information Technology environment or its attached network.</p> <p>Reasons for making changes could be:</p> <ul style="list-style-type: none"> • Addition of a new function • Performance improvement • Growth • Technology change • Problem resolution or prevention
Change Calendar	The change calendar is a list of accepted changes and their proposed implementation dates.
Change Level	<p>Change levels define the importance of the change being handled within the process. Different levels receive different treatment. There are five levels which represent the implementation complexity and risk:</p> <ul style="list-style-type: none"> • 1 Major • 2 Medium • 3 Minor • 4 Business as Usual • 5 Emergency or Exception (E-Change)
Changed Environment	The Information Technology managed resources and environment modified as the result of the change implementation.
Change Status	Information about the change implementation activities, including problem resolution status.
Change Flow	A change flow shows the activities and the order that those activities must be completed within the change management process.

Term	Definition
Change Standards	Principles, rules, specifications and prescribed steps to plan, control and execute changes.
Change Record	The formal document within the change management system that displays change details and the status of the change.
Change Reports	Formatted information about the result of change planning and implementation activities, communicated to users and customers of the process. This includes information about the progress of change requests (for example, approval status), change plans (for example, Consolidated Change Schedule), change results (for example, problem resolution), process health, etc.
Change Request	A request identifying the IT resource(s) to be changed and a description of the change. Change requests may be submitted by any authorized change initiator.
Change Request To Be Rescheduled	A change request which was not approved because the proposed schedule cannot be accepted.
Business Assessment	A validation of the impact of the proposed change on XX from a business perspective, an evaluation of the completeness of the success criteria and communication plan and a review of the backup / backout / recovery plans.
Technical Assessment	A review of the completeness of the change plan, test plan, backup / backout / recovery plans, platform impact assessment, estimated install time, etc. from a technical perspective.
Change Type	<p>There are three change types:</p> <ul style="list-style-type: none"> • Emergency: Changes that are vital to meeting a business need and cannot conform to the normal change process, particularly the assessment and approval phases. • Exception: Changes that are vital to meeting a business need but cannot conform to the normal change process, particularly lead times. • Normal: Changes that follow the change process to the letter.
Change Window	Scheduled time periods established for implementing changes so as to minimize the impact to services and their users. Change windows may vary, depending on the account, on the services, and on the technical environment. The change windows are documented and made available to all individuals involved in the change process.
Consolidated Change Schedule	A report of all changes to be implemented during a given period of time (for example, a week or month), specifying the date and time when each change is scheduled be implemented. The Consolidated Change Schedule also contains information about change dependencies and interactions.
Emergency Change	A change that is vital to meeting a business need and cannot conform to the normal change process, particularly the assessment and approval phases. Emergency changes must be approved or endorsed by either the Director of Information Technology or the Change Management Process Owner prior to implementation.
Endorsement	The endorsement of a change may be necessary where exceptional circumstances dictate that the normal change process cannot be followed. Endorsement includes the authorization to proceed for changes that are not fully approved, and the authorization to stop a scheduled change from proceeding, pending rescheduling. Who is authorized to endorse must be documented and must be reachable at all times.
Escalation	Referring unresolved issues that arise during process activities to appropriate and increasing levels of authority to obtain resolution.

Term	Definition
Exception Change	Changes that are vital to meeting a business need but cannot conform to the normal change process, usually lead times.
IT Change Standard	Information Technology standards that may influence the way changes are introduced and managed in the Information Technology environment.
Initial Change Request	A change request which has been accepted by the Change Coordinator. Acceptance includes checking that all required data elements, as defined by the Information Technology change policy for administration, have been completed. Acceptance also commits this request to the change process and all associated activities.
Initial Impact	The Change Requesters documentation of the potential impact of the change on XX.
Lead Times	<p>The time intervals required to allow proper analysis and approval of changes prior to their scheduled implementation. There are two lead times, which must be defined for each Change Category to meet Information Technology Requirements.:</p> <ul style="list-style-type: none"> • Analysis Times are based on the category of the change and reflect the time interval from when the change request is submitted to when it is available for review. This lead time is to ensure that there is sufficient time between raising and accepting a change request to allow the organization to properly analyze its implications. • Approval Lead Times shows the time before the scheduled activation date that changes should be approved. This period is to allow the proper management and control of the change activation to be set up.
Normal Change	A change that follows the change process to the letter.
Operating Environment	The environment in which an organization performs day-to-day operating activities.
Original Environment	The Information Technology managed resources and environment before the change is implemented.
Outage	A disruption of service in a system.
Problem	A problem is any deviation from an expected norm. That is, a problem is any event resulting in a loss or potential loss of the availability or performance to a service delivery resource and / or its supporting environment. This includes errors related to systems, networks, workstations and their connectivity; hardware, software, and applications. The recognition of problems can come from any point in the environment and can be identified using a variety of automated and non-automated methods.
Problem Notification	Defect information about a failing IT resource or service sent to the Problem Management process for resolution.
Process Compliance Issue	A non-approved deviation from a formally documented Information Technology process. Process compliance issues are documented in detail and submitted to the Change Review Board for resolution.
Process Improvement	A required improvement to one or more related processes associated with delivery of contracted services or support of the Information Technology infrastructure environment. Required process improvements are documented in detail and submitted to the Change Review Board for further handling.
Process Trend	Any process tendency, positive or negative, discovered as a result of analyzing completed requests and reviewing process measurements and reports.
Production Platform	A system or component of a system that is responsible for the actual running of a business function.

Term	Definition
Quality Assurance	The process of determining whether a process, product, or service met its requirements within the given constraints in the most efficient manner possible.
Rejected Change Request	Notification that the request does not comply with change process criteria and, therefore, was rejected.
Request (To Another Process)	A request for action issued by the Change Management process to another process (for example, to the Problem Management process to log and handle Change related problems).
Requester Information	Information identifying the requester of the change (for example, requester's name, area / department, phone, e-mail address, etc.).
Restored Environment	The Information Technology managed resources and environment that are returned to their original condition as the result of the execution of change back out procedures.
Scheduled Change Request	A change request proposed for execution at a certain date and time. The date and time need to be assessed and approved before execution can actually start. If the proposed date and time are rejected during the approval step, then the request must be rescheduled.
Service Delivery Environment	The hardware, software, network, procedures required for IT to deliver services to end-users.
Service Level Commitments	Thresholds and service windows that may influence the way Information Technology processes are managed and executed.
Target Lead Times	See Lead Times.
Technical Assessment Standards	Principles, rules, and specifications that must be taken into account when considering the technical impact of a change.
Technical Information	Technical documentation about products involved in the change, as provided by the product supplier / manufacturer. This includes information about the resources to be changed and information about the tools used to implement the change.
Trend Analysis	Analysis of process behavior to discover both positive and negative patterns.
Trigger	An event that initiates another event.