Best Practices in Change Management
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The change management function employs standard methods and procedures to efficiently and promptly balance the need for change against the impact of change, preventing unintended impacts to service quality. The purpose of change management is to manage and control the process of change in order to enable continuous improvements in IT services while minimizing problems and disruptions related to changes. Critical aspects of the change management process include tracking changes, assessing resource requirements, evaluating the risk and impact of changes, and assessing their costs and benefits. Despite its basic role as a gatekeeper, change management should never be an obstacle but rather should be an enabler to change.

**Change Management and Release Management**

It's important to distinguish between the responsibilities of change and release management. Change management is responsible for assessing and approving the change while release management implements the change by building or buying the solution, conducting testing, training users and distributing or installing the release. Change management's goal is to achieve 100% compliance. In other words, the intention is that all changes will go through the change management process, with one exception that will be mentioned later. The key to success is selecting the right change manager. This person should have broad business and technical experience and have the people skills needed to gently but firmly encourage compliance to the change management process.

The change manager and release manager should always be two different individuals. The independent operation of these two functions helps to ensure that they check and balance each other, particularly in ensuring that changes are carefully thought out and planned. The release manager, however, has input into the change management process through his or her membership in the change advisory board (CAB). Given the boundary between change and release management, change management is only responsible for live application software. Change management should be aware of application development projects, but the application development team is responsible for managing application changes within the development and test environments.

The CAB meets on a regular basis to assess, prioritize and approve changes. The members of the CAB may include change management (which typically chairs the meeting), release management, incident management, problem management, systems management, operations management, relevant application development teams and business and user representatives. The membership of the CAB may vary depending upon the change it is being called to consider. Normally, only more significant changes are brought before the entire board. The CAB should define an emergency committee that is authorized to approve urgent changes that cannot wait for the next CAB meeting. As much as possible, the change management process should be designed to minimize bureaucracy and actively facilitate the implementation of changes.

**Change Management and Configuration Management**

The CMDB is actually part of the Configuration Management process, however it also plays an important role in change management. The CMDB stores information about the hardware, software, and documents that IT manages. Each record is called a Configuration Item (CI). In addition to providing information about IT assets, the CMDB also stores information on the relationships between CIs, including which CIs support a particular business service and which CIs are interconnected in networks. This information makes it possible to conduct an impact analysis of a change. Change management is also responsible for approving updates to the CMDB.
It's important to note that change management controls the configuration management database (CMDB). A change always results in an update to the CMDB, and the CMDB should not be updated unless change management has approved the update. It's also important to note that service requests are handled by incident management, not change management. For example, if a user asks to be added to a certain group in order to gain access to a particular application, this should be considered as a service request rather than a change request. Make sure that service requests are not misrouted as change requests or the change management process will quickly be overwhelmed.

The Change Management Process

The change management process begins when problem management, incident management, customers, suppliers, operations or other IT staff submits a request for change (RFC). The RFC form typically includes the identification number, date submitted, contact details of the submitter, services being impacted, description of change including relevant configuration items (CIs), reason for change, estimated resources need for change, timeframe needed for change, implementation plan, back-out plan, category, status, priority, date approved, person approving, actual implementation date and time, date reviewed and review results. The RFC should be made as simple as possible in order to avoid providing an incentive to circumvent the change management process.

A standard change is a pre-approved routine task that is clearly defined, so it does not require the full change management process. Standard changes can be handled as service requests under incident management. A good example of a standard change is an IT process set up to support new hires, such as setting up a workstation, connecting the workstation to the network, setting up a user account, etc.

Typical Categories of Changes Include:

- Minor impact: The change is relatively trivial and presents minimal risk of causing service problems. The change manager can approve the change without forwarding the RFC to the CAB.
- Substantial impact: The change requires significant effort and could have a substantial impact on services. This type of change requires CAB approval.
- Major impact: The change could impact mission critical operations of the organization. It needs approval from IT management in addition to the CAB.
Typical Levels of Priority are:

- **Low Priority**: The change can be implemented at the next convenient time such as the next release or during scheduled maintenance.
- **Normal Priority**: The change should be reviewed at the next CAB meeting.
- **Highest Priority**: This type of change normally involves correcting serious problems that affect many users. The CAB generally gives this type of change the highest priority when allocating resources.
- **Immediate Priority**: This priority is reserved for serious problems that are having a significant impact on essential services. Instead of following the normal change management process, these changes are reviewed as soon as possible by the emergency committee. If they are approved, resources are immediately allocated to implement these changes.

Assessing and Approving Changes

The next steps are assessing and approving the changes. Assessment involves considering the availability of personnel, resources, costs, risks and interactions with other changes of the FSC. The approval process generally consists of three parts:

- **Financial approval** – a review of the budget and a cost/benefit analysis
- **Technical approval** – assessment of impact, necessity and feasibility
- **Business approval** – approval by the customer requesting the change

iET ITSM tracks the amount of time required to perform changes which makes it possible to look at historical records of similar changes for assistance in budgeting upcoming changes. Once the change is approved, it should be added to the forward schedule of changes (FSC), which contains the proposed implementation dates of approved changes.

If the RFC is a standard change, no approval is necessary. Otherwise, change management reviews the RFC and decides whether or not to accept it. If the RFC is accepted, change management categorizes and prioritizes the change. The change management solution can help ensure that the right approval process is followed for each type of change. For example, iET ITSM automatically configures the approval tab of the RFC with each of the approvers that have been defined for that particular type of change. The change is prevented from moving ahead in the change management process until the necessary approvals have been received. Approvers can use a simple query to view all of the changes that are awaiting their approval. iET ITSM can also be configured for Sarbanes Oxley compliance so that it challenges approvers to provide their user name and password at the time of approval. iET ITSM makes it possible to create a dynamic CAB whose composition varies depending on the type of changes that are to be approved.

Coordinating Implementation of Changes

Change management coordinates the implementation of the change with release management. Release management may bundle several related changes into one release. When this occurs, in addition to approving each of the individual changes, change management should also approve the bundled release. Release management is responsible for implementing the solution. Testing may involve multiple stages such as system testing, user acceptance testing, load/volume testing, compatibility testing, etc. Once all the test milestones have been achieved, many organizations require change management to review the change once more before it is implemented.
If anything goes wrong with the implementation, change management has the responsibility to decide whether or not the back-out plan should be executed.

Change management should work with customers to plan the timing of changes to minimize disruption. While negotiating service level agreements (SLAs) with customers, discuss the best and worst times to make changes and set up a planned window for changes to be implemented.

**Reviews and Reporting**

After the change has been implemented a post implementation review (PIR) should be performed to evaluate the change. It should consider the following questions: Did the change accomplish the desired objective? Is the customer satisfied with the results? Were there any unintended side effects? Was the change accomplished on time and within the budget? If the change was made to a system that is only used occasionally, a couple of months may need to elapse before it can be properly evaluated. iET ITSM automatically tracks the time required to implement the change, which greatly reduces the time required to perform this type of analysis.

Reports should be produced to evaluate the performance of the change management process over time and drive continuous improvements. The CAB should review the change management process at least once per quarter to determine whether the process is on track, and look for areas that can be improved. Typical change management reports include:

- Number of changes completed in the period
- Number of changes that were successful
- Number of changes that were backed out and the reason
- Number of incidents related to the implemented changes
- Number of rejected changes
- Number of changes completed within resource and time estimated

**Integration with Other Processes**

Integration between change management and other processes provides substantial benefits. For example, knowing what changes have recently occurred helps the service desk quickly identify side effects so they can be corrected before they have a chance to become widespread. iET ITSM provides a single solution that covers incident management, problem management, change management, configuration management, release management and service level management. iET ITSM is the only solution that not only makes it possible to create relationships between changes and incidents, but also identifies whether the incident caused the change or vice versa. This means iET ITSM allows you to track the incidents that were the reason for the change to evaluate how successful the change was. You can also track incidents that are caused by a change in order to identify side effects.

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**Change & Release Management Benefits**

- Risk assessment to minimize impact of changes on business processes
- Successful implementation of changes
- Shorter process runtimes
- Successful technology rollouts
As the business quickly responds to competitive threats and works to outperform competitors, change management will help IT remain closely aligned to the business. Instead of simply reducing the number of changes to the IT infrastructure, change management will allow IT to absorb a greater volume of changes without creating an unstable environment. Fewer changes should need to be backed out and back-outs should proceed more smoothly because the impact of the change is better understood. Change management provides better management information about the change which can then be used to diagnose incidents and problems. Finally, change management can improve IT staff productivity because its work will not be interrupted by urgent changes or unplanned back-out procedures.