Understanding and Managing the Risk of Change
What Is Change Management?

Change Management involves understanding and controlling the exposure to hazards such that overall risk to the business is handled in an efficient and effective manner. For example, if an organization were deploying a new desktop operating system across the enterprise, an effective Change Management process would understand the risks involved, assess the impact, and coordinate the change so impact to the business was minimized. Therefore, the intent of Change Management is to act as an enabler that provides a mechanism by which the business can quickly adapt and respond to changing conditions, without the negative consequences that are often associated with hasty action.

Change Management supports business adaptation in several ways. First, effective Change Management offers a standardized method that efficiently evaluates the potential positive and negative aspects of change, and allows for the prompt handling of all change-related activities. Second, Change Management ensures that all changes are recorded, evaluated, properly planned, and accounted for, such that the organization has an ongoing living history of change-related activities. Finally, Change Management minimizes the disruptions often associated with change at all levels.

A formal Change Management process is described by ITIL® v3. This process includes steps that ensure that changes are formally described, adequately reviewed for their impact on the business, assessed, and coordinated in-line with other changes and ongoing business activities. Even the simplest changes entail risk. For example, even a regular update to a desktop operating system, if not properly assessed and coordinated, can result in users being unable to use desktop applications to complete the work of the business, resulting in unanticipated downtime and significant business impact. The ITIL Change Management best practices provide a mechanism by which organizations can control the risks associated with change. The risk of change often avails itself in five ways.

- The risk of unauthorized and properly assessed changes
- The risk of unplanned outages
- The risk of a low change success rate
- The risk of high numbers of emergency changes
- The risk of significant project delays
The ITIL Change Management best practices propose that to address these five risks, seven questions must be answered about every change. These seven questions are:

- Who raised the change?
- What is the reason for the change?
- What is the return required from the change?
- What are the risks involved in the change?
- What resources are required to deliver the change?
- Who is responsible for the build, test, and implementation of the change?
- What is the relationship between this change and other changes?

How do these questions reduce risk? How does knowing “who raised the change” affect my risk? By following a standardized process that answers these seven questions for every change, organizations regularly reduce the numerous risks associated with change.

For example, let’s consider a change that many organizations frequently face; an update to a set of firewall rules driven by an updated security policy. Using the seven questions, we might arrive at the following answers.

- **Who raised the change?** This identifies both the business and IT sponsors of the change.
- **What is the reason for the change?** Firewall rules are being updated to match recent security policy changes.
- **What is the return required from the change?** The policy changes were specific to a new business partner, so the return expected is that internet traffic from this new business partner will be allowed through the firewall, which facilitates new business transactions at an estimated daily value of $25,000.
- **What are the risks involved in the change?** Firewall rules could be incorrectly set, resulting in malicious traffic being allowed into the enterprise, and/or resulting in an inability to accept traffic from the new business partner.
- **What resources are required to deliver the change?** This identifies the specific tools and equipment used to deploy the change, as well as the target configuration items for the change.
- **Who is responsible for the build, test, and implementation of the change?** This question identifies the people responsible for ensuring the change is correctly built, tested, and implemented as intended.
- **What is the relationship between this change and other changes?** Are any other mutually exclusive changes occurring at or near the same time as that proposed for this change? Is there any known interaction between this change and any other changes?

As the example shows, an effective Change Management process uses these seven questions to generate enough information so that critical aspects of proposed changes are sufficiently understood. Once an organization sufficiently understands the information provided by these seven questions, informed decisions can be made about whether or not to proceed with a proposed change, or if significant additional planning must occur before carrying out any specific change.
Using this method, Change Management provides a mechanism by which organizations can understand and control their exposure to risk. Change Management provides an important safety mechanism that ensures that the organization has considered risk and, where possible, has effectively coordinated aspects of change while considering interactions between changes, as well as the impact of change upon business operations.

What Is the Value of Change Management?

Changes that are poorly reviewed, assessed, and managed can have a significant, detrimental impact upon business operations. Inadequately reviewed, assessed, and managed changes are equivalent to gambling with the ability of the business to continue operations unimpeded. Changes, while always involving some amount of risk, can be made less risky if they are adequately reviewed, assessed, and coordinated. The ITIL Change Management process is designed to provide an effective means of reviewing, assessing, and coordinating changes in order to promote the intended consequences of change while minimizing or eliminating the unintended consequences of change. There are a number of other benefits offered by effective and efficient Change Management, including risk mitigation, architectural integrity, encouraging a business-oriented focus, and the long-term automation of routine tasks.

Effective Change Management mitigates risk by providing the organization with the right amount of time and expertise to properly balance the risk and reward of change. For example, ITIL encourages organizations to regularly assemble a Change Advisory Board (CAB), composed of membership from both the technical and business parts of the organization. The purpose of a CAB is to mitigate the various risks associated with change by having technical and business representatives review and assess the various aspects of changes. Ideally, scheduled changes are circulated to CAB members prior to the full meeting to allow enough time to conduct a thorough review. Thus, the CAB is focused on mitigating risk by providing a formal mechanism to ensure that the right expertise is available, and the right amount of time is taken to review planned changes.

Architecture can be thought of as a set of shared decisions about policies, principles, rules, and common approaches that organizations follow. Architecture must serve the organization’s mission. Any changes that are improperly vetted and managed in the context of chosen architectural decisions are potentially damaging to the organization. A formal Change Management process effectively enforces architectural decisions by reviewing, assessing, authorizing, and managing changes in the context of the organization’s architectural choices. Knowingly or not, every organization makes architectural decisions. How well an organization abides by those architectural decisions is often directly related to how effective and efficient its Change Management process is.

ITIL Change Management encourages a business-oriented focus in many ways. First, CAB meetings should include appropriate representatives from the business. This is to ensure that changes are properly understood from a standpoint of both their positive and negative effects on the business, and that customer and user views are considered. Second, Change Management functions as a communication mechanism that makes people throughout the organization aware of what is changing and why. This helps achieve a business-oriented focus by ensuring that decisions about change are made transparently and with the full knowledge of the business. Furthermore, Change Management encourages a business-oriented focus by scheduling changes in line with business volumes and critical business activities.
Finally, as ITIL describes Change Management, a premium is placed on understanding the risk of change and, where possible, pre-authorizing an approach to specific types of changes. ITIL calls these “standard changes.” Standard changes are a mechanism by which the organization can establish and automate routine, low-risk, well-understood activities in order to increase the rate at which the organization can safely implement change. In fact, without using the standard change mechanism, Change Management can become heavily administrative and bureaucratic.

There are many valuable things about Change Management as described by ITIL. Organizations that follow ITIL Change Management best practices regularly experience increased mitigation of risks, benefits from following standardized architectures, stronger business-oriented focus, as well as the ability to handle high volumes of change using the standard change mechanism. Organizations can realize tangible value of change management in two critical ways. First, organizations that follow an effective Change Management process tend to see the negative impact of change upon business operations reduced, while the positive benefits of change are enhanced. Second, the degree to which an organization is effective at delivering change often shows up in terms of its overall effect on ongoing IT support and maintenance costs.

It is difficult to envision an organization that does not have some level of Change Management in place. By following the Change Management best practices described by ITIL v3, organizations can further enhance their ability to quickly realize the beneficial aspects of high volumes of change, while minimizing the numerous risks associated with change.

What Is the Return on Investment (ROI) of Change Management?

There are studies that discuss the ROI of a Change Management process. One such study, conducted by McKinsey found that there was a common denominator to the success of a project. That common denominator was shown to be the quality of the organization’s approach to Change Management.

The McKinsey study showed that when strong and effective Change Management was in place, the ROI was 143%, meaning that for every dollar invested the organization gained 43 cents. The McKinsey study also showed that when low-quality Change Management was in place, that the ROI was only 35%, meaning that the organization lost 65 cents for every dollar invested.

The McKinsey study found common traits throughout the organizations that received the highest ROI. These traits include:

- Clear and effective follow-through by senior executives
- All employees clearly involved and communicated with in the context of change
- Clear boundaries and responsibilities throughout the organization
- Change activities were communicated, understood, and accepted throughout the organization
Another study by PricewaterhouseCoopers, which involved 200 companies, clearly demonstrated the positive effects of high-quality Change Management. One conclusion of the study was that those organizations that had the most mature Change Management processes tended to see the highest rate of project success.

Clearly, effective Change Management has a positive benefit on overall ROI. However, according to Prosci’s ROI of Change Management Model, there are three factors that contribute to the potential variance in ROI. These factors are speed of adoption, ultimate utilization, and proficiency.

Speed of adoption refers to how quickly the organization begins using the new functionality implemented through a change. Organizations are faced with both expected and actual speeds of adoption of change functionality. Prosci claims that the actual ROI of a change is directly affected by how well a change is managed. This means that changes that are communicated better and include any requisite preparation and training will tend to contribute to higher ROI.

Ultimate utilization refers to the long-term percentage of employees who will use whatever functionality was delivered by the change. Organizations deal with an expected ultimate utilization, which is often 100%, and an actual ultimate utilization, which is often much less than the expected ultimate utilization. Ideally the expected ultimate utilization and actual ultimate utilization percentages are close. Generally, the closer these percentages are, the higher the ROI of Change Management will be.

Proficiency refers to how effectively a change is implemented. Organizations have an expected level of proficiency for every change, as well as an actual proficiency. Again, the closer together these two values are, the higher the overall ROI of Change Management will be.

Any difference in these three factors contributes to variance in the ROI of Change Management. As both the McKinsey and PricewaterhouseCoopers studies showed, organizations that are more effective at controlling this type of variance tend to experience a higher ROI from Change Management activities.

What Is the Value on Investment of Change Management?

VOI, or Value on Investment, is a concept introduced by Gartner recognizing that in the modern economy, intangible assets contribute heavily to an organization’s products and outputs. These intangible assets include knowledge, processes, the organizational structure, and ability to collaborate. Where ROI is the measure of the tangible benefits of a project or activity, VOI is the measure of the intangible benefits of a project or an activity. VOI includes ROI. For example, referring back to the firewall rules update change discussed earlier, the ROI might be calculated to be approximately $25,000 in new business per day, whereas the VOI could be calculated to be that ROI plus any new competencies developed in the business as part of working with the new business partner.

Gartner indicates that VOI is composed of several measurable components. These include:

- Business process innovation
- Cultivation, leveraging, and managing knowledge assets
• Individual and organizational competencies
• Change Management plays a key role in each of these components of VOI.

Business process innovation is the optimization of business processes such that existing processes can be leveraged to allow the organization to pursue new opportunities. Effective Change Management contributes to business process innovation by providing a formalized mechanism through which change, and its positive and negative impacts upon the business, can be fully understood. ITIL provides clear techniques for how an organization can implement various aspects of Change Management to support business process innovation.

In the knowledge economy, many organizations are dependent upon their knowledge assets. The success of an organization is often determined by how effectively and efficiently an organization arranges and deploys its knowledge assets. Change Management contributes to this in several ways. First, the successful implementation of a change often involves a transfer of knowledge in order for the organization to support and benefit from the change. In other words, a key intangible aspect of Change Management is often knowledge transfer. Second, in order to properly review, assess, and authorize a change, an organization must learn how to effectively arrange and deploy knowledge assets.

As organizations follow their Change Management processes, over time they tend to develop a high level of organizational competency in the understanding and management of risk associated with change. Furthermore, individuals who participate in the Change Management process tend to become more competent at assessing the various risks of change, as well as understanding how various changes relate to each other. This effect occurs because the organization and individuals participating in the process tend to learn from its successes and failures. In other words, when there is a positive benefit realized from following the Change Management process and when there is a negative impact from poorly assessed change, the organization and individuals within the organization tend to become more competent over time, in the context of a Change Management process. This is significant because it enables organizations to control interactions between changes that, if not closely monitored, can have a detrimental impact and can result in significantly increased costs to deliver change as well as overall, decreased success of change. It is a clear demonstration of continual improvement of the Change Management process based on internal and external feedback.

Finally, one of the key ways to measure the VOI of Change Management is in terms of how many change-induced outages to critical applications and systems occur. Organizations that follow high-quality Change Management processes tend to see fewer outages caused by change, whereas organizations that have low-quality Change Management processes tend to see increased numbers and durations of outages caused by change. Furthermore, organizations that develop and implement even a rudimentary Change Management process have created a context within which the organization can increase competency over time through the failures and successes of that process.

Summary
Clearly there are both tangible and intangible benefits to following the Change Management best practices as described in ITIL v3. Some of these tangible and intangible benefits include:
• Reduced outages to critical systems and services
• More nimble response to new business
• Improved adherence to architectural commitments
• Improved ability to understand and mitigate risk
• Increased business-oriented focus
• Long-term automation of repetitive, low-risk activities, allowing the organization to focus on more difficult activities.

Organizations that lack effective Change Management processes tend to operate in a constant fire-fighting mode. This is a result of not effectively gathering enough information about proposed changes, and making an assessment of the viability of those changes based on that information. Such organizations are simply hoping that the changes that they undertake will be successful and that their business operations will not only benefit, but will not be adversely affected by poorly-coordinated changes.

On the other hand, organizations that implement high-quality Change Management processes, following ITIL best practices, will have a higher likelihood of receiving these benefits. A formal Change Management process provides a mechanism and a context through which organizational and individual competencies improve over time, significantly compounding the value on investment that an organization receives from its investment in Change Management.

References


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