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Perspectives on Change Management

Your company's customers may not notice the impact of change management until something they expect to happen doesn't occur. Their order doesn't arrive due to an earlier failure in the company's e-commerce system, or a download fails unexpectedly. Your internal users immediately notice when their email goes down and they can't send quotes out to customers. There's a good chance that these types of problems were related to a change someone made to an application that negatively impacted the service these customers and users have come to expect.

The importance of controlling change in the IT environment has grown significantly in the last few years. This shift in priorities has had a major impact on mid-sized businesses, which have needed to increase their focus on IT compliance and initiatives centered on security, control, and documentation. This emphasis on change management is an outgrowth of regulations, such as Sarbanes-Oxley; an increase in the adoption of best practices in IT, such as the Information Technology Infrastructure Library (ITIL®); and general trends of corporate accountability. The challenge for change management today focuses on organizational and technological maturity. Most IT shops have been busy building out their technology infrastructure and fighting fires along the way. Now more and more IT organizations are realizing the reasons why change management warrants the time and investment required to meet accountability needs.

Change management is the process of ensuring that changes to the IT environment are made correctly and efficiently, with minimum negative impact, and are accomplished according to the organization's business objectives and priorities. These changes can be as major as a significant operating system upgrade, or as minor as swapping out a PC hard drive; they can be physical changes to hardware, or non-physical changes, such as updating a promoted employee's access to secure data. Correctly managing the change process means documenting the request, assessing its technical and business impact and risks, gaining appropriate approval, scheduling the workflow for the change, and reviewing the change tasks. The change management



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process in and of itself must also be tuned for operational efficiency—assessing the types of changes that are being requested across the organization, the speed with which changes are made, or the number of changes that must be reversed.

Today, change management has taken its place with the other important controls in managing IT. Mid-sized companies that have grown beyond the ability of a few core IT people to manage these issues are perhaps at the greatest risk—precisely because they need, but are less likely to have yet embraced, the standardization and automation of a true change management program. The costs of inadequate change management are significant. Enterprise Management Associates (EMA) estimates that 60% or more of all performance and availability errors alone are due to accidental configuration errors, caused by individuals within the organization. The true cost of not managing change is the impact it has on IT service quality. Impacts include:

- Inefficient and lengthy approval processing
- Lack of appropriate assessment and review, resulting in change failures
- Catastrophic lack of back-out plans



- Uninformed and angry end users and business managers
- Incomplete tracking of costs, changes, and time spent implementing changes

Investing in change management software, therefore, is a necessary step for mid-sized businesses. This paper reviews best practices for implementing a change management solution and includes customer data from a successful implementation.

THE IMPORTANCE OF CHANGE MANAGEMENT FOR THE MID-SIZED BUSINESS

Companies with 500 to 2500 employees are in the "danger zone" when it comes to change management. For busy IT departments—with people often distributed across campuses, cities, or regions—it is extremely difficult to keep track of all software upgrades, equipment swaps, and personnel access changes, to name only a few of the concerns of change management. Over the years, the infrastructure of most companies has grown in size and complexity, with services depending on many levels of infrastructure—from Web servers and applications, to networks, to databases, to back-end financial and accounting systems. Mid-sized companies may still be trying to manage their change processes with spreadsheets, text files, and email, but the sheer volume of changes quickly overwhelms this manual approach. EMA spoke with one mid-sized system administrator who deals with 13,000 trouble tickets per month. While not all trouble tickets will become change requests, trying to manually track hundreds of changes a week through initiation, evaluation, approval, scheduling, and completion can take more time than the actual changes themselves significantly more time than can be managed by the traditional IT staff of a mid-sized company.

With a manual "forward the email" change management process, the time it takes to gain approval increases exponentially as the number of required approvals increase. This can lead to a narrow evaluation and approval process that hinges solely on a technical evaluation by IT personnel. In the interest of time, business people who have

processes running on the systems are frequently left out of the loop. This leaves a significant gap in the assessment of both technical and business risk. Appropriate downtime schedules should be determined, not just by IT people who may guess that midnight will be a slow time, but also by business managers. These business managers may know business details, such as whether there are plans for employees to work through the night to compensate for a project that is behind schedule. Mid-sized IT organizations may think they still know what is going on across the organization, but the increasing complexity of IT in businesses of every size makes that assumption dubious.

Planning and Approving Changes

Another area that mid-sized organizations may need to address is how changes are planned and approved. ITIL recommends the establishment of a group of business and IT people, called the change advisory board or CAB. While many mid-sized companies have not established a CAB, those that have, or are considering it, need to recognize potential pitfalls. If not handled properly, the CAB can become a massmanagement approach that misses the trees while trying to take in the whole forest. Mid-sized companies must take a targeted approach to the use of an advisory board, by including in most discussions only managers who will be impacted by these changes. Otherwise, multi-hour general meetings occur where participants try to focus on only their own systems and processes, thus overlooking the larger implications of changes that could impact related systems. A similar problem occurs in the notification of end users—a blanket notification of every change does not allow users to adjust their work to fit downtimes that will affect them. If IT cries "wolf" too often, those cries may be ignored. This results in users who complain that they weren't notified of scheduled changes, even when the information was provided.

Like their larger and smaller cousins, mid-sized businesses need to maintain and guarantee service availability. Unfortunately, they often have outgrown the manual processes that worked for them as smaller organizations, but don't yet need or want to purchase



or support enterprise-sized change management systems. Money for IT is not easily available in a business where every department is crying out for money to fuel growth. While a change management solution must be affordable and efficient, most importantly it must remove the risk and potential negative impact of IT changes. Appropriate change management controls and evaluations can reduce risks—both to the company and the IT group.

The Need for Automated Controls

IT Governance mandates, such as Sarbanes-Oxley and HIPAA, are creating legal pressure for better IT control and accountability. Procedures and documentation are the order of the day. Back-out plans, which record what steps should be taken to reverse a change, are frequently overlooked or not given adequate attention—until the change goes awry and no one can find the back-out document. Audit trails covering the history of changes, as well as the reasons behind changes, can create a massive paper chase if not managed efficiently. However, if documentation and evaluation procedures are too burdensome, they may be skipped by IT people trying to accomplish work rather than just document it. Workflow automation and online documentation are the only way growing companies can manage change logistics and accountability.

An automated change management solution can reduce costs and improve service availability in several ways. For example, automated approval processes can be targeted to those individuals responsible for the systems and the processes running on those systems, leading to greater efficiency and accountability. Escalation procedures can further ensure that correct evaluation and approvals are received. Graphical calendar views of planned changes can highlight risk potential and result in fewer unintended consequences. When needed, back-out plans can be easily located. These aids can lead to reduced downtime, which translates into greater profitability for the organization.

In Table 1, EMA has noted best practices that midsized companies will need to consider when purchasing a change management solution. These issues represent the broader picture of necessary functionality and may not be found in any one solution. For the mid-sized business, the solution also needs to be easy to implement, easy to customize to the organization's defined formats and processes, and easy to integrate with other IT management systems.

Table 1: Best Practices in Change Management

Important Change Management (CM) Functionality

Change logging, categorization, and prioritization: Whether part of a stand-alone product, or integrated with other systems, change requests must be entered, and include all pertinent information such as requester, purpose of change, categorization by priority, impact, and system group.

Mapping change to personnel as well as hardware and/or software: The system must have the ability to identify impacts both up to end-users, business managers, operational personnel, and down to the infrastructure. This information is used to contact users and schedule operations, as well as to assess the technical and business impacts. This function has strong links to both configuration management and service desk, and again may be integral to the CM product or managed through tight integration with other products.

Workflow automation: Workflow can be broadly or narrowly defined, moving into complete business process management (BPM) or simply routing and escalation. Minimal capabilities for CM include timing and tracking approvals and escalation. Other useful functions for automation and cost reduction include identification of work groups and queues for allocating work, as well as the ability to break down complex changes into components and manage task dependencies and completion. This functionality is frequently part of an integrated service desk product.

Schedule of approved changes: This capability minimizes adverse and unanticipated interactions in changes. Risk is compounded when several major changes happen at the same time. Posting this calendar allows business managers to revisit their approvals in light of changes in business circumstances.

Identification and tracking of all changes: This may be handled by configuration management software or other configuration management database, but the information should be funneled into the CM system. Tracking provides an audit trail of change history for compliance, and also should identify unapproved changes for investigation.

Comparison capabilities: When bad things happen, it's often important to be able to examine "before" and "after" pictures of configurations to identify what has caused the problem.

Store last valid configuration and roll back: If unintended results cannot be easily resolved, it is sometimes necessary to roll back the change to a previous stable state. At a minimum, rollback plans should be documented and attached to the change; automated roll back can make the difference between minimal disruption and thousands of dollars in downtime.

Reporting: Broad reporting capabilities should include both periodic reporting of changes, as well as ad hoc reporting. Other measures of the CM function should be reported and used as impetus for improvement. These might include the number of urgent requests logged, the ratio of approved to denied requests, systems garnering the most change requests, average and maximum time elapsed from request to implementation, and number of roll backs required.



BMC Software's Magic Change Management Solution

BMC Software has been a leader in systems management and service desk management for over 15 years. Its reputation and time-proven products have resulted in thousands of customers worldwide. The addition of the Magic IT Service Support for the Mid-sized Business solutions, as part of the Remedy® product line, has both strengthened their portfolio and broadened their appeal. Magic IT Service Support products include applications for service desk, asset management, and change management, as well as others, and are designed specifically for the mid-sized market—not just a "shrink-to-fit" version of a large enterprise solution. This focus on the mid-sized business is a hallmark of the Magic products. The company's experience with this market, and time spent talking to and responding to their customers, has resulted in products well suited to this group.

Magic Change Management addresses ITIL best practices in change management and is integrated with the Magic Service Desk Suite. This integration meets the Service Support requirements of the ITIL framework, and records change management history, asset inventory, personnel updates, and other information. The Magic Service Desk Suite can be integrated with other network or systems management products to address some of the more infrastructure-oriented, service delivery requirements of change management.

In addition to the best practices mentioned above, Magic Change Management has a strong emphasis on cost and project management. This is very helpful for companies with tight budgets and small staffs. This all-in-one approach brings much needed ease of use to the mid-market—eliminating the difficult, time-consuming, and often expensive integration required when several different service support vendors are cobbled together. Magic products carry a price point that meets the needs of the mid-market, while still addressing the important needs of change management. Magic Service Desk

Suite is browser-based, which allows company-wide access and reduces the learning curve for IT, business managers, and end users. It can be used by many departments within the company and also includes a "self-serve" portal for logging service requests or problem reports.

Bay Area Healthcare, a customer of Magic Change Management and the Magic Service Desk Suite, has used this solution to resolve key change management problems. Some of the advantages and benefits for Bay Area Healthcare include:

- Out-of-the-box forms and workflow processes simplified customization
- Installation required only 15 minutes of one person's time
- Formal documentation of back-out plans
- Automation, auto-fill fields, and self-help portals that significantly increased efficiency
- Average wait time for service and change requests was reduced from 15 minutes to 30 seconds

Facts from Baycare Health

Tickets: 13,000 per month

Installation: One person, 15 minutes

Customization: Easy-to-use GUI does not require programming

Reduced average wait time: 15 minutes to 30 seconds

Favorite features: Automates, enforces, and targets approval process; provides targeted notification of business management and end users when their processes are affected; enforces formalization of back-out procedures.



EMA's Perspective

BMC Software has worked diligently to create a superior set of products, and it has a large customer base that attests to its success. The Magic line of products is targeted at the mid-market, providing significant benefits to its customers. By responding to customer requests and needs, Magic Service Desk Suite and Magic Change Management are a full-featured combination that meets the needs of the mid-sized customer while still focusing on ease of use, installation, and customization. In addition, the Magic Service Desk Suite has been developed and expanded to meet the ITIL best practices for Service Support, with many out-of-the-box standards, metrics, and reports.

Magic Change Management is an add-on solution that is fully integrated with the Magic Service Desk Suite. This makes it a good consideration for the company that needs a whole set of solutions for service desk, change management, inventory, and asset management; and an obvious choice for organizations that already have Magic Service Desk Suite. The decision to purchase the Magic product set will require investing in both products, even if the buyer is primarily interested in change management. That being said, there is a strong link between configuration, service desk, and change management functions with inherent advantages to an integrated suite. Automation is also critical in enabling effective change management. The Magic Service Desk Suite, along with Magic Change Management, truly excels in both areas. This solution creates better accountability, more efficient and effective approval processing, and increases end-user satisfaction with reduced wait times, fewer

outages, and targeted communication. Better change management can lead to reduced downtime, making the organization more profitable.

ABOUT BMC SOFTWARE

BMC Software, Inc. (NYSE:BMC) is a leading provider of enterprise management solutions that empower companies to manage their IT infrastructure from a business perspective. Delivering Business Service Management, BMC Software solutions span enterprise systems, applications, databases and service management. Founded in 1980, BMC Software has offices worldwide and fiscal 2004 revenues of more than \$1.4 billion. For more information about BMC Software, visit www.bmc.com.



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Enterprise Management Associates, Inc. is the fastest growing analyst firm focused on the management software and services market. EMA brings strategic insights to both vendors and IT professionals seeking to leverage areas of growth across e-business, network, systems and application management. Enterprise Management's vision and insights draw from its ongoing research and the perspectives of an experienced team with diverse, real-world backgrounds in the IT, service provider, ISV and publishing communities.

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