

IT Change Management Automation How Mid-Size Organizations Can Improve IT Service Quality and Reduce Costs

A discussion paper from Numara Software

Introduction

Information Technology (IT) change management is a business process that enables organizations to manage and implement ongoing changes in their IT environment, while automating and documenting the acceptance, approval, and implementation of such processes. The ultimate goal of change management is to continuously align personnel and business processes with technology. This management discipline has emerged in recent years as a critical area for IT leaders at mid-size organizations for three primary reasons: the need to boost IT service quality within complex and distributed environments; the emergence of industry standards; and requirement to comply with government regulations.

First, effective change management is essential to improving IT service quality, which mid-size organizations must do if they want to boost operational performance, continually meet customer expectations, and gain or maintain their competitive advantage. Mid-sized companies still trying to manage change processes and approvals with spreadsheets, pen and paper, email, and other manual processes are likely to buckle under the sheer volume of change requests issued per day, week, and month. Industry research firm Gartner® reports that organizations that do not properly manage IT change processes have significantly lower IT service quality than those that do (1). In fact, Gartner asserts that change management is now just as valuable as IT systems themselves (2).

Second, best practices and methodologies that have transformed general operations processes at leading corporations have now extended into IT departments of mid-size organizations. As a result, traditional quality improvement methodologies such as Six Sigma, ISO 9000, and Total Quality Management (TQM) can now be the guiding light for change management initiatives.

For many IT and support departments, the IT Infrastructure Library (ITIL®) has become the preferred workflow methodology. This standard allows IT managers and those responsible for change within the organization to map their current change management processes to a common, best practiced framework.

The third and arguably most influential market dynamic fueling change management is compliance related to IT governance mandates, such as Sarbanes-Oxley (SOX) and the Health Insurance Portability and Accountability Act (HIPAA). While each regulation has its unique requirements for IT operations, especially for public companies, the general principle for today's IT department manager, is that all change processes must be documented and tracked, and electronic audit trails are absolutely mandatory for all changes.

Challenges riddle the change management path

While these factors have put IT change management automation at the top of the agenda, the path to success can be challenging. In a recent research report, Gartner analyst Kris Brittain states that, "Of all the IT disciplines, change management is among the most difficult to properly implement (3)."

Confusing terms, unclear chains of command, turf battles among different departments and groups, antiquated or non-existent IT change processes are all contributing factors to lengthy and often confusing processes that reduce customer service levels, create internal collaboration missteps, and put mid-size organizations at greater risk of noncompliance with regulatory guidelines.

An additional challenge many organizations face is finding an IT change management automation solution that can be tied to their service desk, tailored to their specific needs, and implemented without requiring any costly programming, consulting, or complex administration. To overcome these challenges and to be successful with their IT change management programs, organizations must combine industry-backed process methodologies with a comprehensive change automation solution – that can be easily customized from within to best serve the current and future needs of the organization. One without the other is not sufficient.

The impact of change management

Automating change management can sound daunting. Five years ago, this was surely the case, but now, with the marriage of new industry standards (such as ITIL) that provide clear workflow roadmaps, and change management software solutions that can automate all facets of organizational change, success is more obtainable and benefits are more visible to those responsible for managing change. In a July 2005 report, research firm Enterprise Management Associates said, "The combination of software automation and process automation can also bring IT significant operational savings and nurture a policy-driven environment that can promote superior IT-to-business alignment (5)."

Forrester Research states that nearly 20 percent of business-critical application downtime is caused by scheduled changes that don't take into consideration the dependencies between IT components and critical business services (6).

"Improving Change Management is one of the best investments enterprises can make." – Gartner (4)

How? Well the reality is IT is omni-present in every organization and often an intrinsic part of revenue generation. So downtime of anything from a web page to a CRM application is unacceptable. Whether deployed for the internal help desk or external customer support the web-based service desk offers a trusted solution. It's adaptive nature means it is flexible enough to accommodate the changing needs of today's growing service and support environments, while giving internal and external customers a range of multi-channel access points to engage the help desk or call center with demands for service.

While there are many different solutions and deployment scenarios to choose from, the good news is you do not have to spend your entire budget to get one and, significantly, the open and adaptive nature of a web-based solution also means limited investment is needed to realise other service desks.

Getting started - hail a cab

Mid-size organizations should first establish a Change Advisory Board (CAB), as recommended by ITIL. This group should consist of business and IT staff, including executive and departmental managers. The goal of the CAB is to establish organization-wide approved business and IT process that can be automated, without manual restrictions or roadblocks. The CAB should also create automated controls that meet specific compliance goals.

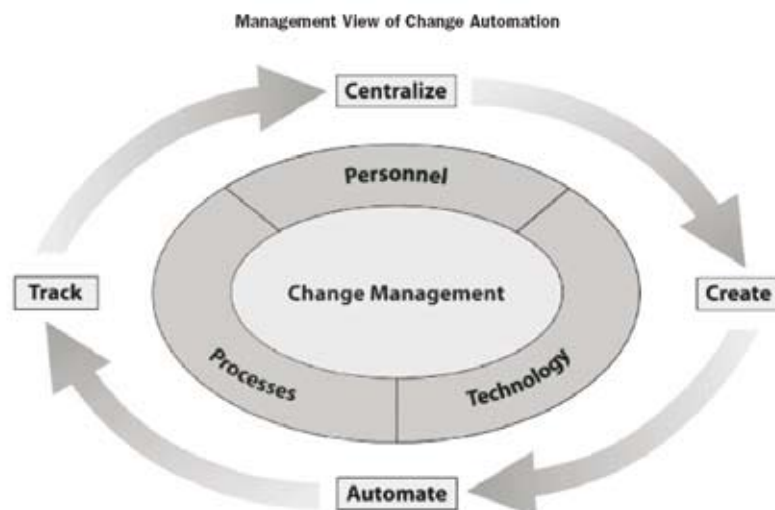
For instance, to comply with SOX Section 404, the CAB should ensure that its program properly document processes for accessing databases, spreadsheets, and other files that contain financial information. It should also identify and define the risks in the processes, places controls on these processes to reduce risk, and report on the effectiveness of these controls. CAB members should also be very active in day-to-day change approvals, and with the help of automated solutions, member participation should only require quick, electronic responses via email or web-based interfaces.

Select the right change management solution

By virtue of its scope, IT change management is closely aligned with the service desk, especially in an ITIL-based organization. According to David Coyle, Research Director at Gartner, service desk tools are playing an increasingly larger role in the workplace, giving organizations a centralized platform to deliver employee and customer support as well as other strategic business processes, such as IT auditing for SOX compliance (7).

The most effective IT change management solution is the one that offers an organization the greatest control over their unique change processes. Therefore, the system chosen should be easily customizable and sufficiently flexible to support different change and approval processes. The solution should also streamline change workflow, align interdependent workgroups, and seamlessly integrate with an existing service desk solution. It should also leverage modern process methodologies, such as ITIL.

A web-based solution provides an extra layer of control and offers both system users and administrators numerous advantages. For instance, decisions that have CAB members located in different locations can easily be facilitated, such as voting on a change request, via email or web interface. Administrators can access the system from wherever they are to complete change audits or fulfill a specific request from the CAB.



Value of a Web-based IT Change Management Solution At-a-Glance

- Create and customize change/approval workflows for any structured business process
- Centrally control and manage changes, including stages of approval and voting
- Make certain that important changes and related communications don't fall through the cracks
- Improve efficiency by ensuring staff members and other relevant parties are working with the most up-to-date processes and requirements
- Implement best practices and comply with regulatory requirements
- Minimize the costs associated with managing change
- Comply with IT governance regulations, such as Sarbanes-Oxley, HIPAA, and 21-CFR Part 11

Jumpstart change management processes

After your CAB is created and the change management solution is in place, it is now time to put the system to work.

Centralize Change Management Processes

According to Forrester Research, the average IT organization spends anywhere from 25% to 45% of its total operational expenses on unplanned and unscheduled work (8). This reactive, "firefighting" mentality, if not checked, can quickly undermine a change management program. By centralizing all processes and requests within an automated solution, managers can ensure that all IT changes are effectively planned, managed, and tracked in accordance to best practices and protocol. And, they can easily create the necessary reports that document the workflow.

Create Customizable Approvals and Workflows

A powerful IT change management solution will allow organizations to create an unlimited number of approval processes, each with multiple phases and different approvers. Customizable approval tools should make it easy to manage change requests, including mass approvals. The solution should enable organizations to customize workflows that model their processes. Approval tools, including email and web-based forms, should be customizable for various stages of the change process.

Also, custom criteria options should make it possible to create unique change approval triggers complete with built-in and custom fields.

Automate Approval Processes

Some organizations report a 100% return on investment (ROI) on their change management solution simply by automating the change approval process. Change approvals, once accomplished in repetitive, time-consuming management meetings can now be executed electronically, in just minutes.

A winning solution will automatically notify necessary parties when a change request is awaiting their approval, send automated email reminders when approvers have not responded, and instantly notify all involved parties once voting is complete. Those involved in the voting process can make their selections through multiple channels including email, easy to use web-based interfaces, and other options as determined by system administrators.

Schedule Changes to Minimize Downtime and Disruption

It is important to schedule changes in a way that ensures minimum disruption to an existing IT infrastructure. An effective solution should allow administrators to schedule changes on a calendar or an automated timeline and mark blackout times when no changes can occur. For instance, retailers understand - probably more than any other group - that unscheduled changes can severely affect the quality and availability of IT services, and ultimately sales.

An unscheduled or uncoordinated firmware change that causes point-of-sales units to freeze at 9:00 am on Black Friday, can be severely dampen a retailer's sales figures. Thus, most retailers create mandatory IT infrastructure change blackouts during peak shopping seasons, such as back-to-school and holiday periods. Effectively scheduling changes also helps organizations group multiple and similar changes to minimize system downtime and better manage risk.

Tracking End-to-End Change Management

IT change management, as a business discipline, is much more than simply managing general change requests and approvals. A comprehensive technology solution should effectively track and manage all change-related tasks from end-to-end. Among other functions, the solution should allow change agents to create automated back-out plans, categorize changes by impact and scope, and establish intelligent associations. For instance, it is important that an organization is able to associate an original problem with an executed change and capture future incidents that occur because of that change - after the fact. This intelligence is necessary in order to maintain optimal IT service levels.

Evaluate Change Workflow and Metrics

The chosen solution must track and manage all changes throughout their lifecycles with a complete audit trail on every change. Administrators and approved parties should be able to view all change management activities and status in realtime. Reporting tools should capture key metrics and reports to help identify current and historical trends. These reports are also necessary for quality assurance, governance/compliance, and ROI purposes. The reporting capabilities should allow management to create detailed audit trails for any change process or request, complete with all votes and comments, if required.

Signs of a Poor IT Change Management Program:

- Paper change request forms
- More than one CAB “change” related meeting per week, exceeding two hours
- Email forwards are the depth of program’s automation capabilities
- Use of an existing Microsoft Access® database, or something similar, to centralize and track changes
- Change requests are created and executed in a vacuum, by individuals or disparate workgroups

Change Management Automation – Value Beyond the IT Department

The need to automate change processes is not unique to the IT department. Numerous departments, including human resources, accounting, corporate compliance, capital budgeting, and facilities management can also benefit from the same process methodologies and change management solutions proven effective by the IT group.

According to Gartner’s Coyle, tools that have the capability to help proactively manage multiple projects, support complex workflows, and can scale easily will enable organizations to improve their service delivery and keep pace with the changing needs of their business (9).

Often IT change management programs will serve as the pilot project within a mid-size organization, and other departments will embrace similar change management programs. Software solutions, particularly the web-based variety, accommodate this organic growth quite easily. A solution that allows organizations to create and customize as many change-related instances as they wish – at no extra cost – is crucial, as adding change instances can become expensive. A human resources department, for instance, may use the software to create a new-hire project to automate change. Rather than managing changes to servers and networks, the group automates employee orientation, password assignment, and benefits presentations.

Case Study: Major Retailer Implements Change Management

As a public company, a leading retailer needed to rethink its IT operations in the wake of the SOX Act. Because important data is generated by, and communicated through, various technology systems such as financial applications and email, audit firms are increasingly including IT as part of their SOX compliance processes. To eliminate the possibility of manipulating data, modifying programs, and ignoring basic system controls, this retailer expanded the scope of its service desk to track formal IT change processes and document the flow information.

The company had been very proactive in this area. It developed formal change control procedures and policies, and expanded its service desk which is powered by NumaraTM FootPrints® and Numara FootPrints Change Management solutions from Numara Software.

“Our compliance initiatives are very important and with the FootPrints solutions we have the capability to remain in step with the reporting challenges associated with SOX,” said the CIO at retailer.

Since 2005 the company has been using FootPrints and the FootPrints Change Management add-on module to track change initiatives related to SOX compliance. FootPrints Change Management provides organizations with tracking and automation capabilities in a controlled, rule-based manner with an approval and voting process for communication workflow and processes. It formally tracks every area of change within the IT group, including internally developed applications, changes from its users, and operational changes such as network and hardware changes, patches, firmware upgrades and configuration changes.

Within Numara FootPrints, the retailer runs 10 separate monthly SOX tracking reports. The company runs audit reports on IT changes that are made within the last week, month, year, etc. Each report is classified by the type of project or what changes were made, such as major change, minor change, quick change, bug fix, high risk projects, and more. These classifications and criteria were defined by the CIO and a change control committee, and then configured into FootPrints by inserting drop-down menus, making reporting an effortless process.

“We have a formal change control committee that meets twice a week so that changes are appropriately reviewed, documented, and approved,” added the CIO. “To prepare for this meeting, we have our systems administrator run reports in FootPrints to review what tickets are open and still pending, what changes have been made, etc. We have to be able to document that every change is handled correctly, as this is what is required of us from an IT general controls perspective.”

With Numara FootPrints the company has minimized its overall SOX compliance risk and added new layers of control across its IT operations. The controls that are in place allow the organization to prepare for SOX audits by having the appropriate documentation and paper trails of all processes readily available. This provides the company with the peace of mind that their IT house is in order. As a result, the company can mitigate any vulnerability in its IT operations and ultimately protect shareholder value.

Conclusion

For today's mid-size organizations, the decision to automate IT change processes is not an "if" proposition. Due to heightened IT service quality expectations, new industry standards, and more rigorous compliance mandates, IT change management must be a top organizational priority.

By establishing an effective change control process that adheres to the canons of ITIL, and deploying a powerful change automation software solution, organizations can realize numerous benefits, including improved quality of service and reduced overall IT costs and corporate risk. Embracing change management will also mitigate occurrences of unplanned downtime that can impact employee productivity and customer service.

Once change management programs establish their roots within the IT department, there is no reason why the organizational benefits should stop there. Using the change methodologies they have already created, and the technology already deployed, creative organizations can initiate change management programs in additional departments. In fact, some may not have a choice. Often the spread of change management projects occurs organically after departments see the benefits being realized by their peers. Success is contagious, and effective IT change management can be as well, if done right.

Bibliography

- (1) Gartner:
Defining IT Change Management, March 6, 2003
by Donna Scott and Kris Brittain
- (2) Gartner
Change Management Makes an Impact on IT
Service Quality, March 13, 2003 by Kris Brittain
- (3) Gartner
Change Management Makes an Impact on IT
Service Quality, March 13, 2003 by Kris Brittain
- (4) Gartner
Defining IT Change Management, March 6, 2003
by Donna Scott and Kris Brittain
- (5) Enterprise Management Associates
Why Infrastructure Change Automation is a
Cornerstone to Effective IT Service Management
(ITSM), July 2005
- (6) Forrester Research
Best Practices for Infrastructure Change
Management, March 2004 by Jean-Pierre Garbani

- (7) UniPress Software
Press Release: UniPress Software's New FootPrints
7.5 Web-based Service Desk Software Helps
Organizations Optimize Business-Critical Support
and Implement Best Practices, September 13, 2006
- (8) Forrester Research
Stabilizing IT with Process Methodologies, March 31,
2005 By Bobber Cameron, Laurie M. Orlov, and
Jessica Lynch
- (9) UniPress Software
Press Release: UniPress Software's New FootPrints
7.5 Web-based Service Desk Software Helps
Organizations Optimize Business-Critical Support
and Implement Best Practices, September 13, 2006



About Numara Software

Founded in 1991, Numara Software is a global provider of service desk management solutions. Its flagship products, Numara Track-It! and Numara FootPrints, support over 50,000 customer sites worldwide making it the leader in this market for small to mid-sized enterprises.

About Numara FootPrints

Since its launch in 1996, the Numara FootPrints line of support automation solutions has evolved as a flexible, pragmatic web-based service desk suite with a low total cost of ownership and fast ROI. Today FootPrints is used by over 2,400 organizations worldwide and its rapid deployment methodology appeals to SMEs and Corporates alike.

The Numara FootPrints product line, which has garnered many industry awards and is frequently recognized by industry analysts, consists of four principal applications, including Numara FootPrints, Numara FootPrints for eService, and Numara FootPrints Hosting Service. These products are complemented by numerous add-on modules to help organizations extend the value of their Numara FootPrints investments, including, Numara Asset Manager, Numara FootPrints Integration with Microsoft SMS Asset Management, Numara FootPrints Deploy, Numara FootPrints Sync, and Numara FootPrints Telephony Integration.



Numara Software Global Offices

North America

Corporate Headquarters
Numara Software
2202 North West Shore Blvd. Suite 650
Tampa, FL 33607

Tel: 813-227-4500
Fax: 813-227-4501
www.numarasoftware.com

United Kingdom

EMEA Headquarters and UK Corporate Sales
Numara Software
Davidson House
Forbury Square
Reading
RG1 3EU United Kingdom

Tel Sales: +44 (0)118 900 0908
info@numarasoftware.co.uk
www.numarasoftware.co.uk

UK Support and Numara Track-It! Sales
The Innovation Centre
Longbridge Technology Centre
1 Devon Way
Birmingham
B31 2TS United Kingdom

Tel Sales: 0800 195 2373
Tel Support: 0800 195 6339
Fax: 0800 195 2385
info@numarasoftware.co.uk
www.numarasoftware.co.uk

Asia Pacific

Australia
Numara Software
Darling Park, Tower 2
201 Sussex Street
Level 20
Sydney NSW 2000 Australia

Tel Sales: +61 (2) 9006 1607
Fax: +61 (2) 9006 1010
info@numarasoftware.com.au
www.numarasoftware.com.au

Central Europe

Germany
Numara Software AG
Alte Ziegelei 2-4
51491 Overath

Tel: 02204 7398-10
Fax: 02204 7398-30
info@numarasoftware.de
www.numarasoftware.de

Austria
Numara Software AG
Hertha-Firnberg-Straße 10/1/201
1100 Wien

Tel: 01 7996-337
Fax: 01 7996-328
info@numarasoftware.at
www.numarasoftware.at

Switzerland
Numara Software AG
Lindenstraße 26
8008 Zürich

Tel: 044 382 20 61
Fax: 044 382 20 51
info@numarasoftware.ch
www.numarasoftware.ch

Czech Republic
Numara Software AG
Geschäftsstelle Tschechien

Kapuzinka 16
CZ-772 00 Olomouc

Tel: 044 382 20 61
Fax: 044 382 20 51

Northern Europe

Nordic Headquarters - Norway
Numara Software Nordic
Luramyrveien 29
4313 Sandnes

Tel: (+47) 4580 9000
Fax: (+47) 4525 6748
info@numarasoftware.no
www.numarasoftware.no

Southern Europe

France
Numara Software France
Immeuble Booster
2 rue du Rapporteur
BP 59169 St Ouen l'Ae - 95075 CERGY

Tel: 0 810 202 272 (N° Azur)
Fax: 0 810 005 190 (N° Azur)
info@numarasoftware.fr
www.numarasoftware.fr

Spain

Numara Software Spain
Avda Juan Carlos I N° 40 2° B
28400 Collado Villalba
Madrid

Tel: (+34) 902 107 794
Fax: (+34) 91 851 2265
info@numarasoftware.es
www.numarasoftware.es

Africa

South Africa
Numara Software South Africa
Suite A5 Waverley Court
Kotzee Road
Mowbray 7700

Tel: 0860 686 272 [0860 NUMARA]
Fax: +27 (0) 21 447 6652
sales@numarasoftware.co.za