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IT Compliance Made Easy

applying **ITIL v.3** best practices
to improve IT processes

white paper

Applying ITIL v.3 Best Practices to Improve IT Processes
A White Paper by Aldon

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IT is under pressure to respond more adeptly to business strategy. To keep pace with rising expectations, a different kind of IT department is required—one that is proactive instead of reactive, one that can anticipate and solve problems before they occur and adapt to changes in the business as quickly as the business itself must. To significantly improve the delivery of IT services across the enterprise, organizations are increasingly turning to best practices. This white paper examines how organizations can apply ITIL v.3 best practices to improve their overall IT processes.

Applying ITIL v.3 Best Practices to Improve IT Processes

Introduction

Business is growing increasingly reliant on IT. In fact, IT now has the power to make or break business. Users no longer accept interruptions in service due to outages, coding errors, or routine system maintenance. As the world grows increasingly connected, and as more and more businesses seek to meet customer needs through automated services, IT is under pressure to respond more adeptly to business strategy.

To keep pace with these rising expectations, a different kind of IT department is required—one that is proactive instead of reactive, one that can anticipate and solve problems before they occur and adapt to changes in the business as quickly as the business itself must. To significantly improve the delivery of IT services across the enterprise, organizations are increasingly turning to best practices.

The Capability Maturity Model (CMMI), Six Sigma, COBIT, and ITIL are all frameworks to bring consistency, measurement, and rigor to IT shops. But which process or methodology is the right one? The answer is ITIL, the most widely used best practice framework for IT service management in existence.

What is ITIL?

ITIL is the Information Technology Infrastructure Library created and owned by the UK's Office of Government Commerce (OGC). A cohesive set of best practices drawn internationally from public and private sectors, ITIL was born in the United Kingdom and has since been adopted worldwide.

ITIL v.3, published in June of 2007, condenses the 10 volumes of v2 into six volumes and subtly repositions ITIL, shifting the emphasis from execution of process to the importance of creating business value. The focus in v.3 is more on lifecycle than on operational process. In general, v.3 strengthens and clarifies the link between ITIL's best practice recommendations and business benefits. Whereas before, ITIL worked to align service management with business strategy, v.3 integrates them into a single environment.

ITIL offers a framework to manage the lifecycle of the services IT provides, resulting in increased system uptime, faster problem resolution, and improved security. As a collection of best practice recommendations, ITIL cannot be audited. However, ITIL helps implement standards that can be, such as ISO 20000, the benchmark for IT Service Management.

The heart of ITIL focuses on ensuring that the customer has access to appropriate services to support business functions. ITIL v.3 combines the service support and service delivery books from v2 into one book titled Service Operation, which introduces, explains, and details delivery and control activities to achieve operational excellence on a day-to-day basis. This white paper concentrates on service support, performed by the service desk and comprised of the following five key processes:

- ❖ Incident management
- ❖ Problem management
- ❖ Configuration management
- ❖ Change management
- ❖ Release management

These five processes give companies control of the incident lifecycle from the time an incident first develops to the time it is fixed, either by a system change or by a new release.

Successful adoption of ITIL is easier with the help of powerful Application Lifecycle Management (ALM) solutions, which bring process automation into the IT shop. Whereas ITIL identifies processes, ALM supports their implementation. By simplifying, automating, and managing the stages of the application lifecycle, ALM provides the infrastructure required for ITIL implementation. The result: a powerful and dynamic IT organization seamlessly incorporated with business strategy.

The Service Desk

The service desk is the central point of contact between users and IT. More than just a help desk, the service desk has a broad range of responsibilities, including delivering high quality support, identifying and lowering IT costs, supporting process and technology changes, ensuring user satisfaction, identifying business opportunities, receiving and tracking calls from users, attempting to resolve issues at initial contact, escalating incidents, notifying users of progress, and maintaining agreed-upon service levels.

A capable service desk cohesively assembles all of these requirements, supporting the business and freeing IT to create new ways to respond to market indicators and business strategy.

❖ **Maintain Control with Incident Management:**
An incident is anything that a user would report to the service desk, including application problems, hardware problems, requests for assistance, requests for enhancements, or suggested changes to procedures.

ITIL distinguishes between incidents (non-standard occurrences of any kind) and problems (underlying flaws in IT systems, often identified as the root cause of multiple incidents). Incident management keeps business in control by restoring normal service operation as quickly as possible when an incident arises, with minimum disruption to the business.

Under ITIL, incidents are tracked and managed each time they recur, making it easy for IT to spot trends, perform root cause analyses, and eliminate previously chronic problems. As a result, no incident is accidentally overlooked, making compliance with service level agreements easier. In addition, everything possible is done to solve incidents at the first point of contact.

ALM solutions automate much of this work, freeing IT to serve as a strategic asset in the face of growing business pressures.

❖ **Improve Responsiveness with Problem Management:**
A problem is the unknown underlying cause of one or more incidents. A problem becomes a known error when the root cause is understood and a temporary workaround or permanent alternative has been identified.

When infrastructure errors do arise, problem management minimizes their effect on the business and proactively prevents their occurrence. ITIL's structured, repeatable, and measurable processes reduce the frequency of such errors and speed their resolution.

Specifically, ITIL recommends that problems be carefully monitored, tracked, and clearly related to incidents. Since multiple incidents are often related to the same problem, they should be sorted so that the relationship can be easily and quickly determined, enabling quick identification of the root cause. All affected users should be kept informed of the progress of the incident by the service desk.

ALM solutions can perform all of these functions. These sophisticated solutions automatically store historical data on incidents, problems, and errors, making it possible to go directly to the heart of the problem and significantly increasing the speed, quality, and return of software development applications.

❖ **Achieve Enterprise-Wide Visibility with Configuration Management:**
Configuration management provides a logical model of IT infrastructure by identifying, controlling, maintaining, and verifying all existing Configuration Items (CIs).

The Configuration Management Database (CMDB) is the foundation of the ITIL framework, listing every configuration item (software, documents, hardware, network, or people) that an organization must manage. One of the hallmarks of a strong ALM solution is advanced enterprise inventory and metadata gathering and storage capabilities, resulting in enterprise-wide visibility into development progress and process.

Without complete and well-organized inventories, data become hard to find, integrate, or change, and business loses agility. An inventory of enterprise-wide applications and documentation provides a structured view of relevant information for all software CIs, regardless of the technology used to develop or serve the application. In a robust inventory, there is no need to understand the underlying technology, server structure, network, folder, or library information in order to observe or manage software CIs.

❖ **Improve Business Processes with Change Management:**
Throughout the application lifecycle, changes occur. Bugs are discovered, enhancements created, and processes modified. All of these changes must be carefully and effectively managed. This is impossible to do without consistent change management processes—one of the cornerstones of ITIL and key to external regulatory requirements such as Sarbanes-Oxley, HIPAA, and ISO 20000.

ITIL offers a defined method for recording, justifying, approving, and coordinating changes (Requests for Change or RFCs). RFCs are controlled by ensuring the proper people, approvals, quality assurance, and processes are applied to each step of the change. ITIL categorizes changes as minor, significant or major. This classification dictates the authorization process applied to each RFC.

ITIL encourages the submission of change requests by users throughout the enterprise, keeping organizations dynamic and flexible. Without a process for handling ongoing change, improvements to business process are limited.

ITIL also recommends role-based authorizations. Assigning responsibilities to roles and basing process decisions on these various authorities prevents code from being released to production before it is ready.

Ideally, these roles and responsibilities are assigned to the system. When automated workflow features are initiated, they take into account the roles that are assigned to the system and the responsibilities and authorities defined to each role. This system of checks and balances is easy to update, simple to use, and ensures that defined ITIL processes are strictly adhered to.

Application change management resides at the core of a comprehensive ALM solution. Approval authorization processes combined with sophisticated rules capabilities and the diagramming of complex workflows are automated, with no programming required.

By automatically storing, approving, and verifying RFCs, ALM change management serves as a kind of wrapper around the entire application lifecycle. Careful and effective management of change is essential to building robust, bug-free software in all of its iterations.

❖ Obtain a Holistic View of IT with Release Management:
A release is a collection of authorized changes and associated RFCs consisting of hardware, software, and associated documentation. Release management provides a holistic view of change to an IT service, considering all aspects of a release—technical and non-technical— together.

This enterprise view is critical for business, providing visibility essential to improving process definition and management. Sophisticated ALM solutions give development managers a way to coordinate development with project management and portfolio activities, keeping IT in line with corporate objectives.

According to ITIL, the movement of software CIs and associated documentation, including the physical placement of the CIs, necessary approvals and authorizations, and the execution of installation routines, must be controlled and observed. The Definitive Software Library (DSL) must be updated during the movement of any code through the process, and all CIs in a release, together with the status of individual CIs, should be monitored. In addition, the movement of hardware CIs, including task management, progress notification, approval, and authorizations should be tracked and monitored.

ALM solutions automatically manage all of these tasks beautifully. Additionally, they provide the version control, access control, and process management required for the creation and change of various software configurations over time.

❖ Integrate Business and IT Through Service Level Management:
ITIL guidelines offer a process for managing and improving service levels to ensure that the provider, who may be an internal department, an external outsourcing company, or a third party supplier, meets the commitments to the user. Where service levels are not being met, corrective action can be taken.

ITIL recommends that details of all SLAs be maintained in a service catalogue containing the features of all services offered.

ALM solutions greatly enhance service levels by offering a single point of control from which to monitor Service Level Agreements (SLAs). All process-related information stored and reports are generated to analyze response and resolution times. Workflows automate service processes, and dashboards provide real-time information on service levels before levels decline unacceptably.

ALM solutions also store the service catalogue in a database, which can be made available to authorized users.

Further, ALM solutions automatically create and deploy service level statistics, providing an invaluable tool to management. Business is empowered to improve service levels for software delivery, facilitating overall business operations.

Getting Started with ITIL

ITIL is taking the tech world by storm and should be seriously considered for any organization that wants to remain competitive. Ultimately, however, for ITIL to work, people must follow the processes. The best way to ensure this happens is to give IT a system that does it for them. The Configuration Management Database (CMDB) is the technical foundation of all ITIL projects.

The best ALM solutions on the market contain a CMDB that allows you to track assets and provides an ongoing history of everything you have done with that asset. Configuration management products also help significantly with incident, problem, and change management. These solutions effectively harness ITIL's recommendations by providing the visibility, control, and automation necessary to create the streamlined development processes recommended by ITIL.

● Applying ITIL v.3 Best Practices to Improve IT Processes

ITIL allows organizations to run IT like a business, with coherent understanding of all of the services that go into it. This kind of visibility is invaluable, enabling leaders to decide what is important and fine-tune along the way.

Achieve ITIL Service Support Standards with Aldon

Stable, well-managed IT infrastructure and services require the right combination of people, process and technology. Organizations beginning to take advantage of the significant benefits of ITIL are looking for comprehensive solutions.

Aldon solutions support ITIL recommendations by providing:

❖ Simple-to-use service desk for rapid implementation and adoption

❖ A robust congifuration management database or CMDB

❖ Alignment of services and development processes for increased predictability

❖ Automated workflow and change management for improved process enforcement and visibility

❖ Manageability of corporate assets for improved security and utilisation

Aldon's service desk uses a Web-based incident tracking and change management system that complies with problem and incident management approaches recommended by ITIL. Aldon's flexible and comprehensive solution tracks, manages and controls IT processes, and serves as a central point of contact for IT and business users.

No programming is required for establishing rule specifications or performing other customization work. This allows business users and analysts greater participation in specifying and defining processes and helps the service desk become operational faster.

Aldon ITIL solutions align the objectives and coordinate the efforts of the service desk with the rest of IT. A release management team can build and manage release plans in coordination with the service desk, development team, and end users to ensure a predictable rollout of solutions.

During the software development phase, Aldon ITIL solutions readily incorporate the development process into the overall application change management process, associating incidents with development projects and maintaining progress information. The integration and visibility across IT process phases provide valuable project data that can be used to minimize uncertainty about project status, ease solution rollouts, and improve ongoing project planning.

Aldon's Web-based change management system automates approval workflows to prioritize requests and enforce and track all change processes. Approval workflows are easily created via wizards. A change request can be tracked from its origination to the generation of a task for IT through to its impact on people, projects, and applications down to the object level.
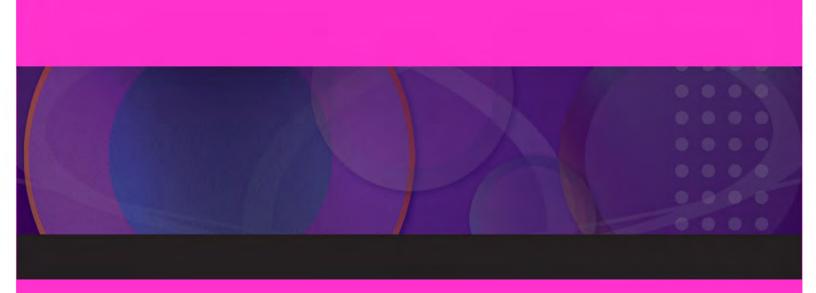
Workflow automation not only reduces cycle time and errors, but it also enforces processes by allowing only correct actions. Process visibility is enhanced, since process status can be monitored via custom dashboards, while built-in reports provide tracking and metrics of change activity. Historical data is archived for audit activities. Aldon's ITIL solutions enable tracking, monitoring, and reporting on the complete incident lifecycle.

And finally, Aldon CMDB solidly manages IT assets, improving security and utilization. Aldon CMDB identifies, records, tracks, and reports on key IT assets. The tool automatically locates (in tandem with a thirt party discovery tool such as Numara's Asset Manager) hardware, software, and network assets, and sends email notification of any changes. Scheduled audits can be performed, and a history of location, hardware, and software changes and usage is maintained. All information stored in the CMDB is integrated with the service desk allowing all configuration changes to be handled via the service desk function. Corporate IT assets are thus secured against loss and unauthorized movement, improving overall utilization.

Continuing Education

ITIL training is offered by companies around the world. Exams and certifications are provided by independent agencies such as EXIN (Examination Institute for Information Science, infoworld.com/4588), and ISEB (Information System Examination Board, infoworld.com/4589).

A number of excellent sources will support you as you move forward, including the IT Service Management Forum (www.itsmf.com). Although based in the UK, the website lists local chapters. Other helpful sources include IT Service Success (www.itservicesuccess.com), Service Level Management (slminfo.org), and ITSM Watch (www.itsmwatch.com). See the ISO website: www.iso.org for more information on standards.

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