# Table of Contents

- Executive Summary ................................................................................................................................. 1
- Introduction ................................................................................................................................................ 1
- Why IT Needs ITIL ...................................................................................................................................... 1
- ITIL Moving Forward ............................................................................................................................... 3
- ITIL Explained ........................................................................................................................................... 3
- Mercury ITIL Foundation: Turning Abstraction Into Reality ............................................................... 4
- Filling Out the Framework ....................................................................................................................... 5
  - Mercury Application Mapping ............................................................................................................... 6
  - Mercury IT Governance Center ........................................................................................................... 6
  - Mercury Service Desk ............................................................................................................................ 6
- EMA’s Perspective ........................................................................................................................................ 7
- About Mercury .............................................................................................................................................. 8
Executive Summary

There are few topics in IT today that generate more confusion than the IT Infrastructure Library (ITIL)®. The promises of a successful ITIL implementation are among the holy grails of IT service management: improved operational efficiency, reduced risk from change, faster problem resolution times, lower cost of IT services, and better alignment between IT and the business. The challenges of ITIL are daunting, however. ITIL provides only general guidance on “what” processes to implement, providing no advice as to “how” to implement them. While this approach gives ITIL the flexibility to work for a wide variety of industries and businesses, it also introduces a vagueness that makes it difficult to map ITIL processes to the real world. ITIL is just a starting point, and its true value is only realized when applied with a solid understanding of the business, and a flexible set of tools for process implementation.

In May 2006, Mercury Interactive Corporation (Mercury) announced a comprehensive IT service management strategy aimed at providing customers with automated and enforceable processes, based on ITIL, which could be implemented across the enterprise. The cornerstone of the company’s strategy is the Mercury ITIL Foundation, an answer to the question of “how” to implement ITIL in the real world. The Mercury solution addresses many of the challenges facing IT today: breaking down traditional domain silos, increasing visibility for decision-makers, mitigating risk from change requests, integrating data from disparate sources, and managing rising complexity. While individual products focus on providing real-world solutions to specific disciplines, the overall focus of the Mercury suite takes a comprehensive, business-centric and strategic approach to IT Service Management (ITSM). In addition, the Mercury ITIL Foundation forms a complete solution with good integration and interoperability with third-party solutions.

Enterprise Management Associates (EMA) survey data predicts that ITIL adoption will continue to rise, following the trends of the last 18 months. Other technology initiatives will see similar activity: CMDB implementations, SOA development and service catalog initiatives are all expected to increase during this period, for example. These advancements will pressure IT management vendors to create ITIL-based frameworks and solutions in order to facilitate a large-scale adoption of ITIL processes. Mercury is well-positioned for this transition, and companies investigating ITIL implementations are recommended to evaluate the Mercury ITIL Foundation.

Introduction

This paper investigates EMA’s finding on ITIL adoption, trends in ITIL practices, and a brief description of the market. It also discusses ITIL in the context of major shifts in IT practices, including CMDBs, SOA and Service Catalogs. Next, the ITIL framework is explained with a discussion of how the Mercury ITIL Foundation compares to other vendor solutions. The mapping of the Mercury solution to the ITIL framework is presented along with a short description of the associated products: Mercury Application Mapping, Mercury IT Governance Center, and Mercury Service Desk. Finally, EMA’s perspective on ITIL, future industry directions, and the Mercury solution is discussed.

Why IT Needs ITIL

The IT Infrastructure Library is a set of best practice documents that provide IT organizations with guidance on establishing and implementing processes for overcoming current and future technology challenges. Companies with the good fortune to have implemented ITIL processes during the inception of their IT organization undoubtedly reap the benefits of outstanding efficiency. However, most IT organizations are not that lucky, being built before ITIL was available, from small grassroots shops that were initially too small to adopt formalized ITIL processes or constructed ad hoc from disparate IT groups created from mergers and acquisitions. In these cases, ITIL processes must be adapted to already existing procedures. This requires a challenging balance between pragmatism and theory and a detailed understanding of both the business and ITIL. An additional challenge for wide scale adoption is mapping ITIL processes with currently available IT management tools. While an INS survey in January 2006 showed ITIL is used at 39% of U.S.-based companies, most organizations today are still very reliant on traditional, binder-based IT management practices.

The chaotic growth of IT has created a technical challenge, which mirrors the process challenges in many
organizations. Most IT infrastructures are comprised of a heterogeneous collection of software and hardware, each adequately performing its own tasks but linked together by patchwork processes and customized integration. As a result, any change to one component may have unforeseen and disastrous results for other parts of the infrastructure. Change is one of the most critical challenges for CIOs and IT managers, representing the highest risk to availability and performance of IT services. Compounding this challenge is the rapidly increasing complexity of the infrastructure.

A common approach to managing change in the infrastructure is through legacy service desk software and procedures. This legacy approach is fostered by service desk software built for processing trouble tickets and addressing symptoms of problems. The data available to service desk staff is oftentimes based on static, legacy repositories with little or no business context for monitoring. The method is reactive, however, focusing on solving problems after they happen rather than proactively preventing them from occurring. Many IT organizations struggle to evolve from focusing on passing problems quickly to specialists without intervening root cause analysis. ITIL introduces process workflow capabilities to problem and change management. This enables organizations to take a more holistic view of the infrastructure, and focus efforts on root cause analysis, preventive monitoring and change management. These increase the stability and performance of the infrastructure and help break down the barriers between technology silos.

Traditional methods of addressing change in the environment are inadequate. Most large enterprises have established one or more Change Advisory Boards (CABs) that oversee changes made to production environments. However, many CABs are potentially ineffective because they lack the underlying data to make informed decisions. The volume of change requests for enterprise CABs is continuing to rise, which means that either the time allocated to each request shrinks or more requests are implemented without review. Additionally, without an aggregated view of the entire enterprise, simultaneous requests may cause change request collisions where two changes negatively impact each other. A common source of change collisions are technology silos which manage their domains without a view into the larger IT environment. A successful ITIL implementation helps IT personnel to understand upstream and downstream processes, which might be impacted by change requests, but this problem remains rampant in business today.

Finally, the source of change requests must be examined. Demand for change requests comes from a variety of sources. Service desks request operational changes. Business stakeholders request changes based on their evolving needs. However, the majority of change requests that come into a CAB arise from application development teams. This presents two issues for IT organizations. First, these demands must be aggregated so that CABs understand the context of requests and can look at the inter-relationship between change requests. Second, application development requests must be more carefully considered. Development staff, focused on providing new technology and services, are oftentimes less aware of issues in the larger infrastructure. While a change request coming from an application developer may be an excellent solution to a business problem or coding challenge, the global impact of changing operational parameters on production servers is a serious risk. Very few companies have included application development practices and lifecycle considerations into its process mappings. Development ends up rushing changes into production without adequate testing. As a result, development changes represent the most common cause of outages and performance degradation for large enterprises.

EMA research has shown that application development changes represent the most common cause of outages and performance degradation for large enterprises.
ITIL Moving Forward

By all accounts, ITIL adoption is on the rise. In a recent EMA market landscape survey focused on U.S. companies, 35% of all respondents were familiar or very familiar with ITIL while 65% had heard of ITIL. In an INS study, the adoption of ITIL worldwide has risen from 39% to 52% in the last 15 months. Of those not using ITIL, 57% plan on initiating programs within the next 18 months. While ITIL adoption is higher in Europe than elsewhere, the promises of improved IT service levels, improved efficiency and lower costs are driving an accelerating U.S. interest.

EMA proposes that ITIL initiatives are only a portion of a larger revolution in IT. Mirroring the explosive growth of the internet ten years ago, IT is undergoing a large-scale shift from traditional silo-based organizations to one of a highly-integrated set of services, processes and data. As ITIL drives companies towards taking a more holistic, high-level view of enterprise processes, corresponding changes are taking place at the services and data level. In a recent EMA study, “…the Configuration Management Database (CMDB) has achieved a phenomenal level of attention among the IT population rising from minimal levels of awareness in late 2004 to exceed awareness levels for ITIL, itself, within the U.S., in Q2 2006.” EMA has noted a growing trend amongst enterprise customers who are implementing advanced IT initiatives such as CMDB projects, SOA applications and advanced Service Catalogs. They are focusing heavily on implementing ITIL processes to enable IT to operate more like a business.

ITIL Explained

The ITIL framework is shown in Figure 1. Service management is at the core of ITIL, and is concerned with delivery and support services needed to meet IT business requirements. Surrounding service management are four disciplines including service management implementation, business perspective, ICT infrastructure, and application management. Planning to implement service management outlines the steps needed to implement ITIL at a company. Business perspective investigates the efficiency and costs of services. ICT infrastructure deals with the technical implementation details. Finally, application management addresses managing applications from the business requirements and throughout the application development lifecycle.

ITIL categorizes service management into a number of processes (i.e., change management, configuration management, etc.). While each of these processes functions in a standalone manner, ITIL illustrates the need for integration between processes. Associated with each process are individual workflows. Again, many of these workflows span several processes. For example, the workflow of an incident may flow as a monitoring event from service execution to event management. From there, the incident moves to incident management with a history of the issue being sent to problem management, which eventually generates a request for change to avoid future repetition of the incident. EMA has developed a high-level model of ITIL workflows to illustrate the inter-related nature of the different IT processes. In the diagram below, the tabs between puzzle pieces represent data flows between the processes.

![Figure 1: The ITIL Framework](image1)

![Figure 2: EMA ITIL Service Management Workflow](image2)
The ITIL library is also continuing to evolve over time driven by changes in the global business climate and corresponding shifts in IT technology to accommodate those demands. For example, there is a traditional misconception that ITIL initiatives must begin with a service desk implementation. Several factors have driven this myth. While service support is at the heart of the framework, ITIL is an enterprise-wide endeavor and cannot be successfully implemented by a single technology silo. Regardless of where an ITIL initiative is started, as shown in the EMA ITIL Service Management Workflow diagram above, eventually all technology silos will be affected. Another reason that the service desk is targeted as the initial implementation point for ITIL is that many companies find mapping the abstract ITIL concepts to the service desk easier than other functions within IT. ITIL need not be approached from a service desk perspective, however. EMA interviews have discovered that the most successful ITIL implementations focus initially on solving business problems that are either a pain point for IT or show a measurable and meaningful Return On Investment (ROI). For example, change management automation is a high impact business problem with historically few solutions and a quick ROI. EMA research has shown an increasing number of companies starting their ITIL implementation with change management processes.

**EMA interviews have discovered that the most successful ITIL implementations focus initially on solving business problems that are either a pain point for IT or show a measurable and meaningful return on investment.**

According to EMA surveys, the most common complaint about ITIL is the difficulty in applying its abstract concepts to real world processes and tools. ITIL is a set of guidelines rather than actionable procedures and it is precisely due to this fact that IT is in need of tools that can move beyond the theoretical into action. The flexibility, which makes ITIL work across vastly divergent industries, is also the linchpin that makes it so difficult to implement in day-to-day operations. As a result, the major IT management vendors are each creating their own frameworks with pragmatic solutions to theoretical ITIL concepts.

Mercury is among the thought leaders in creating a framework which addresses ITIL in real-world, operational terms. As part of its comprehensive ITSM strategy announced in May 2006, the Mercury ITIL Foundation is the cornerstone of the company’s solution. The Mercury Service Management Solution addresses the missing “how” to ITIL and enables implementing ITSM processes based upon the ITIL framework with a business perspective. This is shown in Figure 3.

In the center of the diagram is the federated CMDB, which includes automated service dependency mapping. The CMDB is updated automatically enabling the various business applications that rely on infrastructure-wide data. CMDB data is federated with service desks, asset management systems and other vendors’ CMDBs.
The left hand side of the diagram is an aggregated view of the demands coming into the CAB – from business stakeholders, IT operations and application development. Mercury’s IT Governance Center’s Demand Management not only allows for aggregation, but also manages demands and automates process workflows. It is important to note that an integrated service desk solution is required to feed demand management.

Built on top of this foundation is a set of business-focused applications and solutions that are closely aligned to ITIL Service Management processes. For example, application change is managed throughout its lifecycle, from request through testing and release, in accordance with the ITIL Change, Configuration and Release Management process. This reduces business risk by automating the end-to-end application change process, ensuring quality and regulatory compliance, as well as automatically detecting the impact of planned and unplanned production changes on business services. Another strength of this foundation is that existing tools, from Mercury or other vendors, can be embraced and extended to provide significant, integrated value.

Filling Out the Framework
Understanding the Mercury Service Management solution framework is the first step in reducing ITIL concepts to create an actionable IT solution. The next step is to look at the Mercury ITIL Foundation in more detail as shown in the Figure 4.

The most noticeable feature of the Mercury ITIL Foundation is the importance, front and center, of application management and delivery. EMA has documented a significant trend where ITIL focus is almost exclusively on core IT operations. Application development activities are oftentimes considered as an afterthought or not at all. Most noticeable is the lack of adequate testing and analysis of the impact of new applications rolling into production. These issues are not relegated to SMB organizations. In recent EMA consulting engagements, 65% of enterprise organizations do not have adequate integration of application development activities with IT operations.

While Mercury’s ITIL Foundation framework differs from the standard ITIL model, this unique approach is an evolutionary progression that puts focus on change not only from the operational viewpoint, but also an application development standpoint. The model clearly shows the role of the traditional Operations CAB. However, it also delineates the role of a Business CAB, which is responsible for application changes, and the IT Steering Committee, which is responsible for changes in the IT asset portfolio. All of these groups require data from across the organization so that decisions can be made on change impact and risk. For many CABs, the rate of change requests is overwhelming, the upstream and downstream dependencies are vague, and the data available to make the decisions is incomplete and inconsistently gathered. Instead of relying on “gut reactions” and anecdotal evidence, CABs need more robust, automated tools for making decisions and collaborating on issues.

When viewed in the context of the framework, the entire Mercury suite presents a complete and compelling ITSM solution. For example, Mercury Business Availability Center (BAC) provides service level, problem and availability management while Mercury Application Change Lifecycle provides a change, configuration, and release efficiency.
management solution. Mercury’s ITIL Foundation consists of three integrated components that provide the underlying building blocks to support framework. These products are Mercury Application Mapping, Mercury IT Governance Center, and Mercury Service Desk.

**Mercury Application Mapping**
The foundation for a successful ITIL implementation is having a trusted data source that spans the entirety of the organization. Originally defined and developed by ITIL, the term “Configuration Management Database” is commonly misunderstood and certainly transcends configuration data. The CMDB is a trusted, dynamic and federated data store that allows management applications to efficiently share data, streamline data collection and enable analysis for faster problem resolution, service level management, and to support other ITIL disciplines. In a recently released report on CMDB adoption, EMA found strong evidence that companies are moving away from IT domain silos towards a functional focus as described by ITIL. In doing this, vendors are now beginning to think about selling building blocks that provide integration and support automated, consolidated data gathering features.

Mercury Application Mapping (MAM) provides automated discovery of services within the infrastructure and maps applications to those services. While this capability is critical to companies with business critical applications, which may not have a one-for-one relationship between applications and servers, MAM also addresses critical CMDB requirements. MAM is used to create and populate federated CMDB data stores, both Mercury-branded and third party. As integration is the leading challenge for companies implementing a CMDB according to recent EMA research, Mercury’s ability to act in a federated data store is critical. In addition to allowing real-time data synchronization, MAM is integrated with the entire Mercury product suite including Mercury Business Availability Center, Mercury Change Control Management and Mercury Service Desk. Finally, MAM supports an aggregated data view supporting business impact analysis of changes. This feature is especially crucial for CABs and others in need of a wider view of the IT infrastructure than silo-based tools allow. Finally, the MAM functionality increases stability and performance of business applications by allowing proactive monitoring and reducing the mean time to repair.

**Mercury IT Governance Center**
IT Governance Center provides the aggregated demand for the application requests and strategic proposals, as well as a front-end portal for end users’ service requests. Once a request is made, IT Governance Center applies process automation across the lifecycle, including integration with quality management.

One component of Mercury’s IT Governance Center is Mercury Demand Management, which gathers, tracks and automates service requests from outside IT operations. These requests might come from a variety of sources: the Program Management Office (PMO), an IT Steering Committee, or a Business Unit CAB. In some cases, the processes may take weeks or months and involve a number of external and non-IT business groups. Mercury Demand Management provides for a fully automated means of tracking, collaborating and reporting on these requests. Robust workflows follow the request from start to finish providing each business role with a unique, tailored view into the process. The Mercury Demand Management process engine ensures that ITIL principles are followed and auditory or compliance regulations are enforced. This strict policy-oriented process along with the ability of each user to view the request in the appropriate context allows companies to streamline their efforts and significantly reduces the time to fulfill requests.

Integration with MAM allows CABs to determine up-stream and downstream services impacted before approving the change request. Once approved, Mercury Demand Management provides an end-to-end tracking of these requests. The PMO gains business visibility into the requests for budgetary planning and prioritization. Integration with Mercury Quality Center mitigates the risk of application changes affecting availability and performance of the production environment by enforcing stringent QA processes. Mercury Service Desk is also integrated to allow coordination of tasks and monitoring of change tickets.

**Mercury Service Desk**
Mercury Service Desk gathers, tracks, and automates processes for IT operations call centers. The product handles incidents, problems and change requests by users or IT staff integrating workflows for typical service support. Mercury Service Desk tickets are stored along with
their histories in the integrated Mercury CMDB, and available to automatically feed Service Level Agreements (SLAs), CAB decision support tools, or any other processes requiring the data. In addition, Mercury Service Desk includes an asset management system for tracking IT inventory, vendor contracts and the costs associated with suppliers. Integrated with MAM, Mercury Service Desk provides the ability to quickly pinpoint impacted services, allowing more efficient problem resolution and prioritization of support activities.

Mercury Service Desk is built from the ground up for ITIL compliance with a focus on the needs of enterprise IT Operations. It is integrated with incident, problem, change, service level, availability, and asset and inventory management. This integration provides automation, linking of key ITSM processes, and a comprehensive end-to-end solution.

A new product offering, Mercury Service Desk is a next-generation help desk with streamlined implementation, a simpler user experience, and a significantly lower cost point than its legacy help desk competitors. Tickets and change requests natively support ITIL processes. EMA has identified changing the “binder-based” mindset, where procedures are written on paper records or even passed down via tribal knowledge, as a significant barrier to implementing ITIL processes. By providing an integrated service desk solution with easy-to-use capabilities for recording and automating these processes, Mercury Service Desk provides IT management with the tools to address this problem. In addition, the product is integrated with the Mercury CMDB allowing for a seamless exchange of data between the various products in the Mercury suite. Third party integrations and a generic adapter for other service desk solutions are also available. Mercury Service Desk cuts response times and facilitates a more streamlined process for resolving outstanding problems, resulting in high application availability and improved performance.

EMA’s Perspective

The surprise in the evolution of next-generation IT architectures and practices is not that the industry is seeing whole-scale movement from domain silos such as networks, systems and applications defining vendor offerings to a more holistic process-oriented model, but rather the rate at which those changes are happening. In 2002, EMA predicted “…federated data stores in support of cooperative analytic engines” unfolding during the next decade. In that same time, SOA was predicted to become more prevalent in newly-developed applications, eventually replacing legacy applications at the end of their lifecycles, again another six to ten years in the future. EMA also noted an increased interest in Service Catalogs initiatives amongst more sophisticated IT organizations. These efforts were also expected to intensify over the next few years. ITIL, an obvious step in the move towards a more integrated IT environment and a means to addressing the needs of these trends, was expected to continue to gain momentum as vendors slowly included more workflow and process features into their tools. In reality, all of these events have coalesced in the last 18 months, creating a “perfect storm that has the potential to utterly transform the IT management marketplace.”

In early 2006, EMA predicted new solution offerings from the major IT management vendors targeted at assisting customers map generic ITIL processes to specific workflows and vendor products. Since then, several solutions have been introduced into the marketplace, both software and services, and EMA predicts that initial offerings will be available from all the primary IT management vendors by the end of the year. Most of these ITIL mapping tools focus on the historical strength of the vendor’s solution set, and the Mercury ITIL Foundation is no different. Mercury has a well-developed, robust solution based in real-world IT operations. The Mercury ITIL Foundation extends the typical service management strategy to include a strong business-oriented approach to problem identification and resolution, an integrated solution from both a process and data perspective, and a set of tools and processes, which help break down legacy technology silos and enable cross-domain collaboration. EMA predicts accelerated success in ITIL initiatives by implementing Mercury’s framework.

Mercury’s approach to CMDB implementation is also forward-thinking. EMA’s research into CMDB adoption shows that integration is one of the largest hurdles facing customers today. Mercury has a strong integration play both internally with the products within the Mercury ITIL Foundation, Mercury Business Availability Center, Mercury IT Governance Center, etc. and externally
with other vendors’ CMDB and Service Desk products. Using the Mercury ITIL Foundation tools, for example, data from Mercury Service Desk tickets are automatically extracted, aggregated and normalized with the results being stored in the federated CMDB. When a change request is made, either by the PMO, the Business CAB or IT Operations CAB, the data from that ticket is automatically made available to the decision-makers regardless of its source. The ability of Mercury Demand Management to reach outside traditional IT operations and provide correlated data is a significant differentiator for the company.

Mercury also addresses automation challenges, which are an Achilles’ heel for many CAB decisions. With the increasing complexity of the IT infrastructure, features such as dynamic provisioning, automatic discovery, and mapping of applications to services along with robust features to populate the CMDB are becoming requirements for most IT organizations. Mercury addresses these challenges with MAM and Mercury Change Control Management.

Finally, Mercury Service Desk provides a fresh approach to a market dominated by legacy solutions, which are notorious for their high-maintenance, proprietary approach. Built from the ground up with ITIL processes in mind, Mercury Service Desk promises to have lower implementation costs, less customization, and a more flexible architecture.

In summary, Mercury provides a clear mapping of ITIL fundamentals to pragmatic, real-world processes. The approach addresses a number of critical challenges facing IT organizations today. The products comprising the Mercury ITIL Foundation give a business perspective to IT, are integrated, foster collaboration between traditionally siloed teams, and are well suited to meet industry demands. EMA recommends that customers implementing an ITIL initiative evaluate Mercury ITIL Foundation.

About Mercury
Mercury Interactive Corporation (OTC: MERQ), the global leader in business technology optimization (BTO) software, is committed to helping customers optimize the business value of information technology. Founded in 1989, Mercury conducts business worldwide and is one of the largest enterprise software companies today. Mercury provides software and services for IT Governance, Application Delivery, and Application Management. Customers worldwide rely on Mercury offerings to govern the priorities, processes and people of IT and test and manage the quality and performance of business-critical applications. Mercury BTO offerings are complemented by technologies and services from global business partners. For more information, please visit www.mercury.com.
About Enterprise Management Associates, Inc.

Enterprise Management Associates is an advisory and research firm providing market insight to solution providers and technology guidance to Fortune 1000 companies. The EMA team is composed of industry respected analysts who deliver strategic awareness about computing and communications infrastructure. Coupling this team of experts with an ever-expanding knowledge repository gives EMA clients an unparalleled advantage against their competition. The firm has published hundreds of articles and books on technology management topics and is frequently requested to share their observations at management forums worldwide.

This report in whole or in part may not be duplicated, reproduced, stored in a retrieval system or retransmitted without prior written permission of Enterprise Management Associates, Inc. All opinions and estimates herein constitute our judgement as of this date and are subject to change without notice. Product names mentioned herein may be trademarks and/or registered trademarks of their respective companies. ©2006 Enterprise Management Associates, Inc. All Rights Reserved.

Corporate Headquarters:
2585 Central Avenue, Suite 100
Boulder, CO 80301
Phone: +1 303.543.9500
Fax: +1 303.543.7687