



Good to great: transform your IT through service lifecycle management

White paper

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Introduction

Services are the new “currency” of the IT organization—the irreducible element that allows IT to structure and streamline its operations, transact business with its users, and demonstrate its value to the enterprise as a whole.

As businesses become more dependent on technology (80 percent of the average company’s practices are now carried out by IT), the traditional capability-centric IT model has proven woefully inadequate. This form-follows-function approach—where the structure of IT is driven by the hardware, software, and systems it must support—forces IT to use almost all its resources simply to keep things running from day-to-day. Users are dissatisfied, IT staff feels pressured and overworked, and the executive suite wonders why IT isn’t delivering better value for the money being spent.

Add to all of this the need for IT to aggressively manage costs, satisfy corporate governance objectives, leverage technology to provide a competitive advantage and meet ever-increasing user demands, and it’s easy to see why so many corporate IT shops are struggling these days.

With so much riding on IT’s performance, a new service-centric model has emerged. This function-follows-form model takes a more businesslike approach to IT, using services as building blocks. These services become, in effect, the “products” IT offers its “customers”—complete, standardized packages designed to meet specific user needs and to which a specific monetary value can be

assigned. By adopting a service-centric approach, IT can reinvent itself as a value-oriented driver of corporate objectives: reducing operational complexity, improving customer satisfaction, and positioning itself for long-term success.

If services are the building blocks on which IT builds its new structure and operations, then those services had better be good. The practice of service lifecycle management (SLcM) offers IT a comprehensive and effective methodology for increasing the quality, performance, and value of each service, from design through to retirement. SLcM is built upon best practices of IT Infrastructure Library version 3 (ITIL v3), which reflects the industry trend toward an end-to-end lifecycle approach to the services IT offers.

This paper provides an introduction to and overview of SLcM and the Information Technology Infrastructure Library (ITIL) principles on which it is based. It shows how SLcM provides the framework for organizations to optimize business outcomes and facilitates continual service improvement.

As a leader in the movement to apply ITIL best practices to the operation of IT organizations, HP helped design and write the standards set forth in ITIL v3, which embodies the lifecycle approach discussed above. HP Service Manager software, the center of HP’s comprehensive service desk solution, supports ITIL best practices and processes, and therefore is an ideal foundation for IT organizations using SLcM to make the transition from a capability-centric to a service-centric model.

“Service lifecycle management is not just about delivering quality services, it is about delivering services that are relevant at all times, regardless of changes in the business environment.”

David Cannon, co-author Service Operation book for ITIL v3, IT Service Management Principal, HP

What is service lifecycle management? SLcM is an effective organizational tool

For our purposes, a service is defined as anything provided by IT to satisfy a business need. A service may be delivered to individuals, departments, or an entire company. Examples of services include enterprise systems such as e-mail; line-of-business applications such as a billing system; or fulfillment of employee requests such as personal workstation backup or an office automation bundle.

IT services are never static. They are in constant motion along a continuum of being born, being implemented, being delivered, being adjusted and updated, and being retired. They do not exist in a vacuum—each service is an integral part of a much larger picture of IT and its role in driving the business forward. This means that every service, no matter how small, has an important role to play in facilitating the processes, transactions, and day-to-day work performance required for the business to achieve its financial objectives.

The value the enterprise perceives in the IT organization, then, is directly related to how well IT designs, manufactures, and delivers these services to its end users across the enterprise.

SLcM is the most effective way for IT to organize itself around the delivery of services. SLcM is the process of applying best practices to every phase of the service lifecycle. These phases are:

- **Define:** Identify a business need and create a service to meet that need.
- **Deliver:** Make the service available to its target end-users.
- **Monitor:** Use relevant metrics to gauge performance.
- **Support:** Enable end users to get the greatest benefit from the service.
- **Analyze:** Watch for trends and problem areas.
- **Optimize:** Adjust as necessary.

Therefore, SLcM enables IT to manage every service effectively throughout its lifecycle, making certain that each service is playing its proper role in the larger effort to deliver increased IT value to the business.

“IT is no longer just a support unit for ‘the business.’ IT is fast becoming a key element in every business service or product. In a real sense, IT is a strategic part of the business. Service lifecycle management provides the tools necessary for IT organizations to achieve the role of strategic partner. IT’s contribution to value can be clearly measured and articulated. Rather than struggling to justify the money spent on IT, CIOs have the tools to demonstrate the value that IT brings, not just by providing quality services, but by providing services that are linked to specific business outcomes.”

David Cannon, co-author Service Operation book for ITIL v3,
IT Service Management Principal, HP

SLcM delivers significant benefits to IT

The ability to better manage each service at each stage in its lifecycle gives IT the power to make itself better at every level. By implementing SLcM, IT can:

- **Optimize business outcomes:** IT can establish Deming-style “PDCA” (Plan-Do-Check-Act) quality cycles, which provide the service performance data needed to measure and analyze the performance of each service.
- **Facilitate continual service improvement:** Using the same PDCA model, IT can foster improvements using a number of factors, including user requests, incidents, changes, and performance data.
- **Increase efficiency:** IT can make faster and smarter personnel and resource allocation decisions.
- **Optimize service delivery and support:** IT can see a direct connection between specific tasks and specific services, so it can easily prioritize service-related activities (for example, working on an incident or fulfilling a request) in terms of relative importance, cost, or SLA requirements.
- **Meet increasing customer demand:** With resources better allocated and services optimized, IT is in the best possible position to meet user needs and exceed user expectations.
- **Facilitate regulatory compliance:** IT has at its disposal the granular-level data necessary to meet reporting requirements at every level.

SLcM is based on ITIL v3 best practices

The Information Technology Infrastructure Library (ITIL) is the world’s most widely accepted approach to IT Service Management. ITIL provides a customizable best-practices framework for managing IT services at every phase of their lifecycle.

The evolution of ITIL mirrors the evolution of the corporate IT organization itself. ITIL v1 dealt with stability and control of the infrastructure, reducing business disruption, and linking IT budgets with external benchmarks. ITIL v2 provided a pathway for moving IT to the next level, concentrating on the quality and efficiency of IT processes.

ITIL v3 reflects another significant step forward in the evolution of IT. With IT playing an important role in driving business results, ITIL v3 focuses on how IT can provide increased value to the business, emphasizing the importance of leveraging technology to enhance that value. ITIL v3 recognizes that managing IT requires more than just a set of processes—it requires the ability to manage the complete service lifecycle. It also requires tighter integration of IT’s people, processes and tools with a company’s overall strategy and objectives.

ITIL v3 brings service management in line with changing business priorities, advancing technology and new governance models. Its principal objective is to speed and simplify the implementation, adoption and application of service management processes to optimize business outcomes. Six fundamental strategies are utilized for achieving those objectives:

- Evolve from process management to lifecycle management.
- Design services based on value.
- Use lifecycles as the basis for investment decisions.
- Recognize that functionality and manageability are basically the same thing.
- Enable services using knowledge.
- Treat infrastructure and service as a single entity.

ITIL's five service lifecycle stages

ITIL v3 also articulates five principal stages of the service lifecycle:

- **Service strategy stage:** IT determines the unique value it can deliver to help differentiate the business in the marketplace. IT then works with the business to manage demand, determine markets, track finances, resolve resource trade-off issues, and ultimately decide what services to provide.
- **Service design stage:** IT develops a pragmatic service blueprint that balances functionality, performance and cost, while also making key sourcing decisions. Much of the previous service delivery processes from ITIL v2 remain in ITIL v3, including designing for availability, service continuity, continual improvement, and gathering feedback.

- **Service transition stage:** IT tests services and introduces them into the infrastructure in a controlled manner, according to clearly defined processes for change management, asset and configuration management, and knowledge management.
- **Service operation stage:** IT delivers and supports the services it has developed, preserving stability and uptime while maintaining flexibility and responsiveness to variations in the business and IT environments.
- **Continual service improvement stage:** IT monitors service performance and identifies ways to improve quality and reduce costs while staying aligned with changing business requirements.

HP is an ITIL leader

As both the IT organization and the IT function itself continue to mature, industry acceptance of the lifecycle view of service management (indeed, of IT management as a whole) continues to grow. This lifecycle view—which SLcM exemplifies—uses ITIL v3 as its foundation.

HP is one of the industry's leading proponents of ITIL, and was asked to assist in the writing and review of ITIL v3. HP is at the forefront of ITIL v3 support, and offers a comprehensive solution that includes software, services, and education. The unique service management framework of HP makes it easy to take ITIL from theory to operational reality.

How service lifecycle management works

To understand the practice of SLcM, let's use a real-world example of a common service—provisioning for a new employee.

As previously stated, the lifecycle of this service has six phases:

1. Define
2. Deliver
3. Monitor
4. Support
5. Analyze
6. Optimize

Let's look at each phase to see how SLcM best practices—as defined by ITIL v3—enable IT to deliver increased value.

Define

- **Create, maintain, and visualize all components and relationships within the service.**

In the service-centric IT organization, delivering value begins by creating a set of repeatable, standardized services which are offered as products to the end users of IT. So, long before our new employee is hired, the New Employee Provisioning “product” has been carefully designed and defined.

ITIL v3 covers this process in its Service Strategy and Service Design stages. Defining the how, what, and when of the service starts with understanding how it affects the business as a whole (for example, standardizing the things a new employee gets reduces costs and improves efficiency; the faster new employees get what they need, the sooner they become productive).

Any new employee will need hardware (a laptop), software (Microsoft® Office suite, connectivity software, business applications), and installation services, plus a user ID, e-mail address, and application log-in. A blueprint for the service can then be created that sets the standard and delivers the proper results in terms of functionality, cost, and performance.

Following this, ITIL v3 provides (in its Service Transition stage) for the testing and controlled introduction of the service into the IT environment, using defined processes for change management, asset and configuration management, and knowledge management.

Once fully vetted, the complete package is made available to all relevant departments for use when a new hire is brought on.

Deliver

- **Publish service definitions, along with supported service level options, in the service catalog.**
- **Manage requests from inception through fulfillment for both individuals and departments.**
- **Track subscriptions to services from request to fulfillment to renewal and then to cancellation or retirement.**

The New Employee Provisioning service is published in the service catalog, along with its associated cost. Prior to the new employee's start date, his/her manager selects the product from the catalog and the delivery process begins. On day one, everything the employee needs is ready and waiting.

ITIL v3 provides best practices for delivering the service in its Service Transition stage. Many of these were originally developed and specified in ITIL v2. Best practices cover every phase of service delivery and fulfillment, including what happens when the delivery process is interrupted. For example, if the new laptop is not currently in IT's stock, a workflow is activated that orders the laptop via the SAP system.

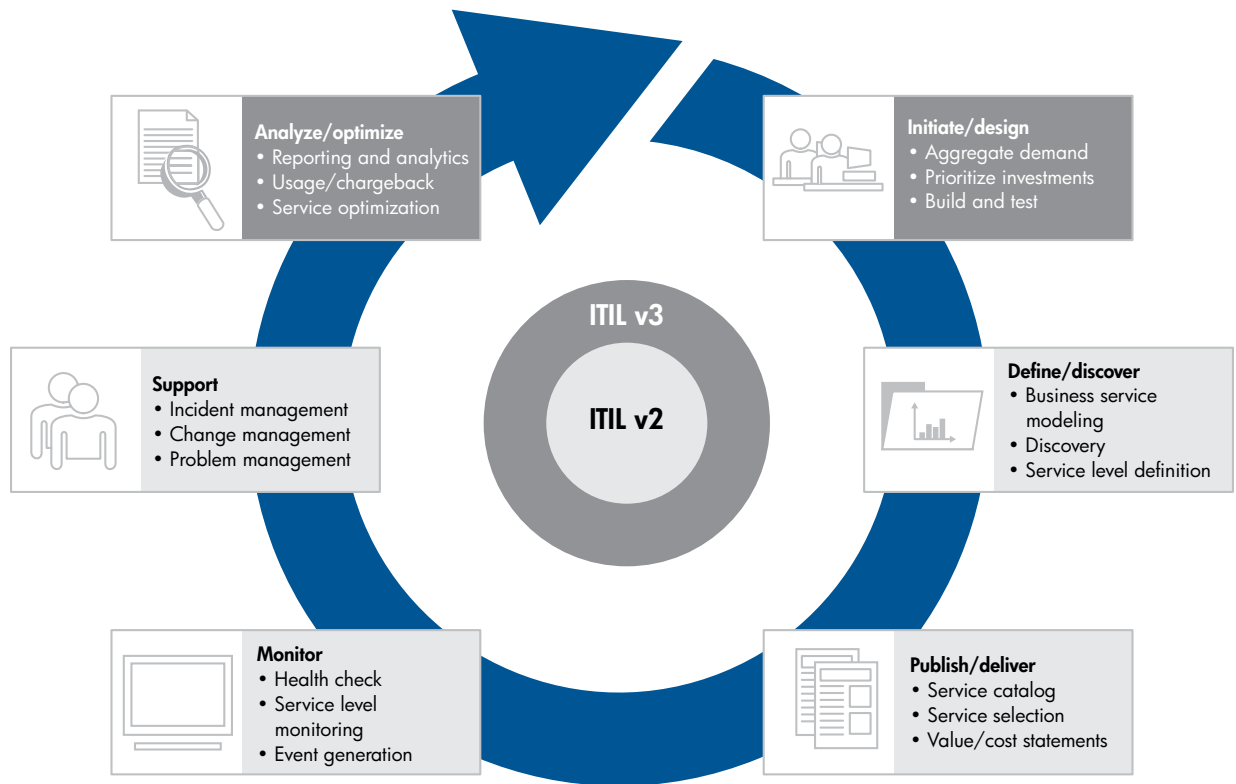
Subscriptions to services such as e-mail, user ID, and application log-in are fulfilled and tracked over time. When the ordered laptop arrives and is configured, IT verifies that it is running properly.

Monitor/support

- **Check and maintain the service using incident management, change management, problem management, and service level management capabilities.**

Three weeks after starting, the new employee is having computer issues. There seems to be a problem interacting with the Accounts Payable application—things are running very slowly. He/she opens a ticket with IT support and the request is easily handled and managed using IT's service dashboards and service level monitoring. A memory upgrade is ordered to address the speed issue, and upon installation the ticket is closed.

The Service Operation stage of ITIL v3 provides the processes and best practices necessary to properly implement SLcM at this phase.



Analyze

- **Use metrics to create a picture of how well the service is being delivered and is working in relation to its stated goals.**

A report is generated and prepared for IT management that looks at how many instances of the New Employee Provisioning service were ordered and how well IT did in delivering what it promised in the Service Catalog. ITIL v3 lays out the processes and best practices for choosing and implementing these metrics in its Continual Service Improvement stage.

Analysis shows that the issue with the Accounts Payable application was reported by other users, resulting in a number of memory upgrades.

Optimize

- **Update and improve the service based on what has been learned from the previous phases.**

Using the analysis, IT redefines the New Employee Provisioning service to include the more powerful laptop.

Changes are also made to the Accounts Payable application. The revised service is implemented and the lifecycle begins again.

Once again, the Continual Service Improvement stage of ITIL v3 provides the framework for IT's optimization process.

Taking SLcM from theory to practice

SLcM offers IT a proven and well-defined path for transitioning from a capability-centric to a service-centric operating model. But the lifecycle journey we've just been through is really still theoretical. In order to take the actions outlined in each phase of the lifecycle—actions delineated by ITIL v3 best practices—IT must have a comprehensive technology solution in place that fully supports the practice of SLcM and embodies ITIL principles.

HP offers such a solution.

HP Service Manager software increases the value of service lifecycle management

HP Service Manager enables IT to implement and realize the benefits of service lifecycle management. The complete lifecycle support of HP Service Manager is aligned with the ITIL v3 emphasis on business value, continual improvement, and the building of a service-oriented IT organization. HP Service Manager provides a “single source of truth” that enables more effective organizational collaboration and enhances management across the entire service lifecycle.

The HP Service Manager suite of modules and integrations to other HP software solutions provides a complete set of integrated lifecycle processes that support business and IT services from inception to retirement.

These processes include:

- Service Portfolio Management
- Demand Management
- Financial Management
- Service Catalog Management
- Service Level Management
- Availability Management
- Change Management
- Service Asset & Configuration Management
- Release Management

- Knowledge Management
- Event Management
- Incident Management
- Problem Management
- Request Fulfillment

HP Service Manager automates key IT processes to facilitate successful outcomes. It offers fully integrated service catalog and service level management functionality, tracks service subscriptions to better understand service impact, enables IT to mine and incorporate new sources of knowledge, and offers unparalleled ease-of-use at every level.

Revisiting the previous example using HP Service Manager

Returning to our example of new employee provisioning, we can see how HP Service Manager brings the principles and best practices of SLcM and ITIL v3 into every phase of the service lifecycle.

Define

HP discovery technology provides both details about new or upgraded service components, and comprehensive information about the various relationships between and among those components.

In HP Service Manager, this information can be further refined (using service modeling capabilities) to include additional related information such as organizational data, related service level agreements, related request definitions, and more. HP Service Manager visualization tools support the process of building a service model, which can then be published to selected sections of the business user community through the service catalog.

Deliver

As previously noted, prior to the our new employee's first day on the job, the manager accesses the HP Service Manager self service portal from his/her desktop and selects "New Employee" from the appropriate page of the HP Service Manager Service Catalog module. This populates the manager's shopping basket. The request is submitted—and the manager stops thinking about it, knowing that the fulfillment process has taken over. On day one, everything the new employee needs is in place.

HP Service Manager Request Management module subsequently establishes that there is no laptop in the Virtual Stockroom and pushes an order out to SAP Material Management®. When the laptop arrives in the warehouse and the receiving process is complete, Request Management automatically adds a Configuration Item (CI) record for the laptop and activates a work order to install and commission the laptop.

Once the laptop is set up on the network, integration with HP Client Automation software triggers the appropriate software installation.

HP Service Manager subscription capabilities support the user (both at individual or departmental level) beyond simple purchase transactions:

- Requests for support against specific services
- Requests for service cancellations
- Provisioning of departmental services for new or transferred employees
- Notification of service disruptions
- Visibility into the types and levels of services that a particular user or department is consuming

Now at his/her desk, the employee checks the Service Manager portal and Service Catalog to confirm he/she has access to all the necessary services, applications, and subscriptions. These items are fully documented in the system.

Monitor/support

The regular discovery sweep of HP Service Manager (using HP discovery technologies) detects the new device and the installed software. In this case, everything is as expected. Had there been any discrepancy—for example, less onboard memory than expected—an incident would be raised automatically and routed to management for investigation.

When, three weeks later, the employee starts having laptop issues, he/she accesses HP Service Manager end-user self service and opens a ticket. The portal displays a drop-down list of the services to which the employee subscribes. The Accounts Payable system is the one giving the most trouble, so the employee selects it from the drop-down. This automatically invokes the correct SLA and assigns the ticket to the correct group. HP Service Desk Service Level Management module enables the proper support to be given for the request.

A service agent looks at the CI record and notices that there have been some events (logged automatically by the HP Business Availability Center software) for the new employee's device that are currently under investigation. The visualization capabilities of HP Service Manager make it easier and faster to assess the impact of this incident. The agent decides that the employee could use more memory and recommends that he/she order more.

The employee returns to the self service portal and selects an available upgrade for the laptop—which the system already knows about. Using the Service Catalog interface, the manager approves the request online, and the appropriate ordering and workflow activities are triggered.

Analyze

Using HP Service Manager dashboards and HP DecisionCenter software reports, IT management analyzes detailed historical data and notices that the Accounts Payable application has been the cause of a number of performance issues on the standard client build. Further investigation shows that some minor modifications to the application will solve this problem, prevent further costly memory upgrades and make IT perform better in relation to its SLAs.

Optimize

Changes to the Accounts Payable application are made. The service is re-launched and the lifecycle begins again.

Summary

With services taking such an important role in the way IT operates, the practice of service lifecycle management has emerged as a best-practice-based approach to making each service the best it can be. SLcM helps IT demonstrate its value to the business, and enables IT to increase efficiency, optimize service delivery and support, and meet growing customer demands.

The principles of ITIL v3 form the basis of SLcM. This latest iteration of ITIL reflects the changing nature of the IT organization, and its new role as a key driver of long-term business success. ITIL also recognizes the importance of effective management across the entire service lifecycle, and therefore provides a path for the proper implementation of SLcM.

HP Service Manager is a key component in any successful SLcM implementation. HP Service Manager embodies the principles of ITIL v3, and its suite of modules provides the functionality needed to bring SLcM to every lifecycle phase of every service. A long-term leader in bringing ITIL best practices to corporate IT organizations, HP offers a comprehensive solution, including Software-as-a-Service (SaaS) delivery options, professional services, and education in addition to HP Service Manager software.

Resources

To learn more about HP software solutions, contact your local representative or go to www.hp.com/go/btossoftware

For more information on HP Service Manager software, please visit www.hp.com/go/servicemanagementsoftware



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