

## Service Optimization

Delivering Business Value on a Legacy Budget

## Table of Contents

Executive Summary .....	1
An IT Paradox.....	2
Service Optimization: Circumventing the IT Paradox .....	2
A Service Optimization Maturity Model .....	3
Service Optimization: How to Get Started .....	5

## Executive Summary

Executives responsible for their organizations' IT infrastructures are facing a paradox: they are being asked to deliver higher service levels while cutting costs.

To circumvent the paradox, they need to become more efficient — much better at extracting business value from finite resources. Recent studies have shown that businesses that focus on IT effectiveness — making the IT infrastructure perform better for its money — can deliver significant value to the business from a legacy budget.

Service Optimization is a disciplined approach to increasing IT performance without increasing cost. The approach identifies underperforming management processes within the data center, and then systematically makes them more effective using a combination of best practices and intelligent automation.

By focusing on process improvement, IT organizations can extract more business value from finite resources — not only delivering higher service levels, but also returning money to the business. This money can be reallocated to developing new revenue-generating services or simply passed to the bottom line. Service Optimization can deliver significant business value no matter what the state of alignment of IT with business goals.

BMC Software has built a Service Optimization Maturity Model based on its best-in-class IT management solutions and extensive field experience working with customers since 1980 to help them deliver more service to the business at less cost. The model helps businesses deliver tangible business value from the IT infrastructure today while establishing a strong foundation for more sophisticated IT-business alignment.

Service Optimization can turn a seemingly impossible situation into an opportunity for the IT department to shine.

Businesses are striving for higher margins to deliver more value to shareholders. Higher margins depend on generating more revenue at less expense. Senior management is scrutinizing all areas of operating expense, including the operations portion of the IT department.

Information Technology — particularly the IT infrastructure and the management tools and people to support it — is viewed as a major operating expense in most companies. Eighty percent (80%) of the typical IT budget goes to operations (also called “maintenance”), while only 20% goes to developing new applications that can make money or differentiate the business competitively.

Senior management is very open to investing in new systems and capabilities; however, once the systems and capabilities are installed, they view IT operations management as a high sunk cost from which the business gets little or no business benefit beyond “keeping the lights on.” Every area of IT operations is under scrutiny, particularly mainframes.

IT organizations have been asked to reduce expenses by an average of 15% this year; meanwhile, they are being asked to support as much as 25% growth in transactions and to accelerate the delivery of new business services that generate revenue. Mainframes continue to be the IT workhorses of many enterprises, with mainframe capacity (as measured by growth in MIPS) projected to continue to grow at a compound annual growth rate of 15%-20% through 2009, according to Gartner.<sup>1</sup>

## An IT Paradox

Executives responsible for IT infrastructures face a paradox: deliver higher service levels to support the business while cutting costs.

To circumvent the paradox, you need to become much more efficient — better at extracting business value from finite resources. The consequences of not becoming more efficient can be dire: missed service level agreements (SLAs), dissatisfied customers, the inability to scale with business demand, and a lack of cost-competitiveness that may result in all or part of your IT operations being outsourced to a more cost-effective provider.

IT organizations that can become more efficient can deliver significant value to the business, enabling higher margins. IT is firmly entrenched in the value chain at most businesses, so that a company that can use IT to become more efficient than average can usually obtain a serious cost advantage

over its competitors. Consider a leading retail operation, which has used IT to build an efficient distribution network that gives the retailer significantly higher margins than those of its competitors — and an unbeatable lead in its industry.

IT organizations that can become more efficient not only can deliver higher service levels to the business, but also can return money to the business. This money can be reallocated to developing new revenue-generating applications or business services.

Recent studies have shown that businesses that focus on IT efficiency — making the IT infrastructure perform harder for its money — can deliver significant value to the business on a legacy budget.

In a survey of 500 senior business and technology executives worldwide conducted for *MIT Sloan Management Review*, businesses that focused on delivering “well-oiled IT” were able to contribute to higher-than-average compound annual revenue growth rates over a three-year period (11%), while their costs were 15% less than average. By comparison, companies that treated IT as “plumbing” to be maintained (“the maintenance zone”) had slightly below-average growth rates (-2.0%) despite average levels of IT expenditure.<sup>2</sup>

The survey’s authors noted that becoming more effective can deliver significant gains to the business — even in the absence of high alignment of IT with business goals.

## Service Optimization: Circumventing the IT Paradox

The solution to the IT paradox is Service Optimization.

Service Optimization is a disciplined approach to increasing IT performance without increasing cost. It makes you more efficient by improving the effectiveness of underperforming management processes in the IT infrastructure, including processes in:

- > Database management
- > Operations management
- > Systems management
- > Storage management
- > Capacity management

Service Optimization can increase the business value you deliver from every area of your data center, including your mainframe.

1 Report: *IBM's Mainframe Endurance Will Pose New Challenges for Users*, Gartner, Inc., May 19, 2006

2 Article: “Avoiding the Alignment Trap in Information Technology,” *MIT Sloan Management Review*, Fall 2007 Vol 49 No. 1

Service Optimization has three goals:

- > Deliver the highest levels of quality of service
- > Reduce costs for the business
- > Reduce risk for the business

Service Optimization enables **delivery of the highest levels of quality of service** by optimizing the availability and performance of your IT resources.

For example, you could improve service levels through a process that enables database maintenance to take place concurrently with regular business transactions, reducing or eliminating the need to take the database offline. You might also improve service levels by intelligently automating the process of scheduling batch work, so that the process notifies an operator of a problem with enough advance notice to allow changes in the critical path.

Service Optimization **reduces costs for the business** by leveraging productivity gains to do more with fewer people, to strip costs out of the most expensive resources (CPUs, storage, software), and to scale to accommodate higher levels of workloads without adding people or hardware.

For example, you could reduce costs by optimizing CPU performance and reducing the temporary use of storage on the mainframe, thereby delaying hardware upgrades; this refined process would save not only on hardware but also on related software licenses and maintenance costs. By applying the right tools and techniques to the process of reorganizing databases, you could optimize REORGs to use less storage space, reducing your hardware costs.

Service Optimization **reduces risk for the business** by using automation to avoid risk and to reduce the time and cost of meeting regulatory compliance.

For example, you could create processes that automatically fix database problems when reporting them, thereby preventing business disruption. By incorporating automated restart capabilities into database operations processes, you could reduce delays that cause business disruption.

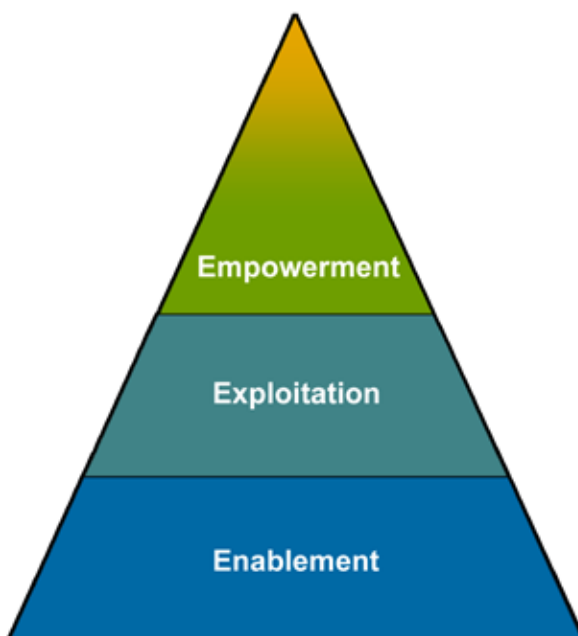
By taking a Service Optimization approach, you can make the IT infrastructure much more effective. You identify and prioritize those underperforming management processes that are most critically affecting service to the business, and then automate and continuously improve them to make them more efficient.

## A Service Optimization Maturity Model

BMC Software has developed a three-step Service Optimization Maturity Model that helps IT operations executives identify and improve their highest-leverage management processes. The steps build on one another, taking an IT organization from providing services to providing services with the utmost cost-effectiveness. (See Figure 1.)

The three steps are:

- > Enablement
- > Exploitation
- > Empowerment



**Empowering IT to make and meet business commitments cost-effectively**

**Exploit tools, skills, process to enable IT to meet service commitments**

**Enable IT to provide services using tools and skills of technicians**

### Service Optimization Maturity Model

Here is an example of how the Service Optimization Maturity Model could help improve the performance and availability of a critical database — for example, a customer database residing on your mainframe.

## Enablement

In the Enablement step, you put in the base tools and processes that allow your technical staff to be more productive and effective in the delivery of their day-to-day administration tasks, and establish the baseline for further process improvements.

For example, you may be executing database REORGs during a regular maintenance window — a fairly typical database maintenance process. In many shops, however, there is limited time for these types of operations, and database administrators (DBAs) may not be able to effectively prioritize what should be reorganized or when. To ensure more consistent availability of data to the business, you could improve this process by regularly running automated utilities that analyze database performance and disk usage and alert the DBAs to any problems that might prevent successful completion of the process, such as overflowing maintenance windows.

The benefit of this improvement would be better system performance and reduced duration of outages.

## Exploitation

In the Exploitation step, you make process improvements that enable your staff to meet defined service commitments based on business requirements.

For example, you may want to extend the capabilities of the tools implemented in the Enablement phase by adding more intelligence and automation to the task. You could improve the reorganization process further by tying it to maintenance indicators and by dynamically optimizing maintenance based on application characteristics. You might establish a specific policy based on the condition of the objects, and execute the jobs only if the policy conditions are met; this policy would eliminate unnecessary resource execution and ensure execution only of those activities that help attain business service levels.

By taking a more application-focused approach to database availability, you could eliminate some outages and ensure successful completion of more customer orders.

## Empowerment

In the Empowerment step, you empower IT not only to make service commitments but also to meet them more cost-effectively. Using automated utilities controlled by

business rules, you could further improve the REORG process to automatically respond to changing application requirements — such as the need to accommodate additional Web orders on the day after Thanksgiving. The utilities can respond to dynamic thresholds, and schedule jobs and send alerts when threshold conditions are reached — providing notification of potential SLA violations before they happen.

By taking this highly intelligent automated approach, you can eliminate most outages, reduce the need to add DBAs, make the DBA staff more productive, and reduce the risk of disruption to business services (in this case, the order entry application).

With each level of Service Optimization maturity you attain, you become more effective. You can deliver higher service levels while saving money — often significant amounts of money. You move much closer to being able to maximize the business value of IT and reduce TCO.

For example:

- > A leading telecommunications company saved more than \$5 million in people costs over a three-year period by automating and optimizing performance monitoring of the company's mainframe. The company was able to add thousands of new customers without adding any IT resources, while improving service levels.
- > A large consumer-information Web site reduced manual batch scheduling tasks by 80% by automating and optimizing key processes. The company was able to reduce the number of staff involved in the process from 20-30 people to 2, while meeting service level agreements.
- > A leading online retailer saved more than 200 man-hours of labor a day by automating and optimizing job scheduling on its mainframe. By providing a centralized view and point of control for scheduling functions, the company improved its level of control and simplified Sarbanes-Oxley compliance reporting. Further, it improved system reliability and availability by implementing predictive event notification. Savings: \$1.8 million in the first year, against a six-year investment of only \$1 million.
- > An outsourcer of applications to the financial services industry reduced day-to-day IT staffing requirements by 85%, by automating and optimizing its mainframe batch scheduling process. Service levels and system reliability improved, while six team members were able to move from scheduling roles to more strategic business projects.

As your management approach evolves from reactive to proactive to pre-emptive, you and your team become a much more valuable partner to the business. It becomes much easier to achieve ever-more-strategic alignment with business goals, including Business Service Management.

## Service Optimization: How to Get Started

To get started with Service Optimization, you should first assess your infrastructure management disciplines, including:

- > Mainframe Database management
- > Operations management
- > Mainframe Systems management
- > Mainframe Storage management
- > Mainframe Capacity management

Next, within each discipline, identify key leverage points for your business. Ask yourself these questions:

- > “Which processes generate the most calls from my customers or the CIO when they break?”
- > “Which processes take the most time and effort from my staff to maintain or troubleshoot?”
- > “Where could modified or additional processes optimize the IT infrastructure and use it to deliver the most valuable service to the business?”

Finally, use best-in-class tools and established best practices (including ITIL® processes or practices gleaned from benchmarking your competitors) to streamline these processes and automate them to make them more efficient.

BMC Software can help you implement Service Optimization and move up the maturity curve. BMC solutions were built for the largest, most complex data centers specifically to provide high availability and performance, and they are used by 98 of the Forbes Global 100 companies. Our Service Optimization Maturity Model is based on our extensive field experience working with customers over the last 28 years to make their IT infrastructures more responsive to business needs.

To learn more, visit the BMC Service Optimization Knowledge Center at [www.bmc.com/save](http://www.bmc.com/save).



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## About BMC Software

BMC Software delivers the solutions IT needs to increase business value through better management of technology and IT processes. Our industry-leading Business Service Management solutions help you reduce cost, lower risk of business disruption, and benefit from an IT infrastructure built to support business growth and flexibility. Only BMC provides best-practice IT processes, automated technology management, and award-winning BMC Atrium technologies that offer a shared view into how IT services support business priorities. Known for enterprise solutions that span main-frame, distributed systems, and end-user devices, BMC also delivers solutions that address the unique challenges of the midsized business. Founded in 1980, BMC has offices worldwide and fiscal 2008 revenues of \$1.73 billion. Activate your business with the power of IT. [www.bmc.com](http://www.bmc.com)

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