

Service Level Management

Delivering Shared Services

SERVICE LEVEL MANAGEMENT: ON THE LEVEL

TABLE OF CONTENTS

SLM – Addressing Increased Customer Demands.....	Virhe. Kirjanmerkkiä ei ole määritetty.
From Component Management To SLM	3
The Fast Track to SLM	4
Business and IT Benefits of SLM	5
Building Business/IT Alignment.....	5
Tools for Visibility and Control.....	6
Monitoring the End-User Service Experience	7
Monitoring Service Components.....	8
Committing to Service Level Agreements (SLAs)	8
The Impact of SLM	9
Tools for Service Level Management.....	11
Results Within Reach	11
About Nimsoft	13

SLM –ADDRESSING INCREASED CUSTOMER DEMANDS

The shared services model has attracted a lot of interest but what is it precisely? One definition is that it is the standardization and consolidation of non-core functions within a company to reduce duplication while centralizing process and controls. Typically these functions have been back office or administrative ones, such as human resources or accounting. The aim has been to drive efficiency gains by reducing operating costs and improving quality. However, as shared services takes hold in the psyche of organizations, a new dimension has created a new set of challenges. The growing focus on customer service has placed new demands and expectations on the IT department. It has highlighted the reliance organizations place on their IT infrastructure. It should therefore come as no surprise that the reliability of IT infrastructure has taken on an ever greater urgency across the organization and in the boardroom. System uptime, application responsiveness or server availability are all factors that could undermine confidence and adoption of the shared services model.

A successful shared services implementation requires a combination of strong leadership, comprehensive and effective communications, the ruthless pursuit of standardization and the need to change a back-office culture to one that is truly customer service orientated. It is this latter point that the IT department must concentrate on as it is incumbent on IT professionals to demonstrate the value that IT delivers in driving forward corporate goals and objectives.

As IT moves from being seen as a cost centre to a strategic value center in its own right, it is critical that the expectations and demands placed on the technology infrastructure are clearly defined through key performance indicators and the associated Service Level Agreements (SLA). It is for this reason that Service Level Management (SLM) is widely regarded as a solution that can ensure the availability and responsiveness of key infrastructure systems as organizations become ever more customer-orientated. This paper presents an evolutionary approach to SLM that enables organizations to successfully develop a shared services model that maintains the focus on customer service and builds confidence in the underlying technology infrastructure.

FROM COMPONENT MANAGEMENT TO SLM

Many IT organizations today are managing their systems at the component or process level, managing and monitoring discrete computers, networks, and applications. In a recent Gartner survey, only 12% of respondents reported that their companies were doing SLM — the end-to-end management of people, applications, and systems to ensure that IT performance is reliably and efficiently meeting the terms of service level agreements (SLAs) between business functions and the IT organization.¹

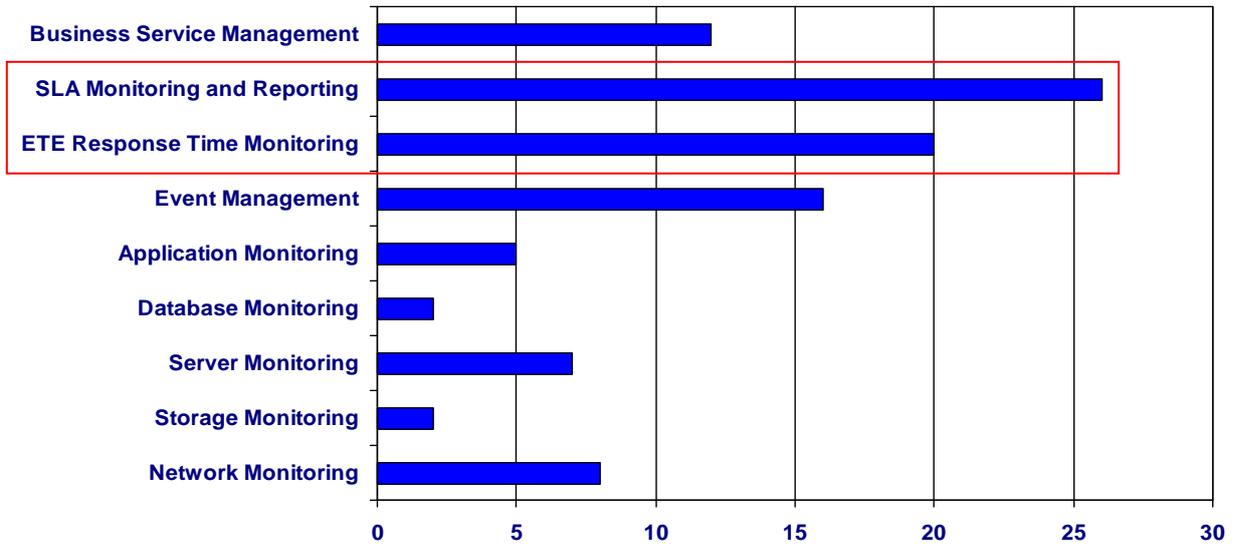
SLM offers a number of benefits to the business as a whole and to the IT organization. The business gains a close alignment between its IT investments and business goals, an alignment that can improve revenues and profit margins and support business growth. For the IT organization, alignment with the business enables clear priorities and higher visibility for IT's contribution to the business, and SLM helps boost productivity and lower labor costs.

And businesses are well aware of these benefits. As the figure below indicates, Gartner reported that the top investment priority for availability and performance monitoring is tools for service level agreement monitoring and reporting.²

¹ Curtis, Debra. "Conference Polling Indicates Improvement in IT Management Process Maturity." Gartner, Inc. April, 2006.

² Curtis, Debra. "Poll Reveals Buying Preferences for Business Service Management, Availability and Performance Monitoring." Gartner, Inc. April, 2006.

Gartner Survey: What is your number one priority availability- and performance-monitoring tool investment in 2006?



THE FAST TRACK TO SLM

The key to a fast SLM implementation (and fast ROI) is focus: focus on the services that are most crucial to the business, the components and interactions that most closely affect service quality, and tools that plug quickly into your existing infrastructure to give you the visibility and control you need to manage those critical services and components. You can start by choosing one or two critical services for SLM, and expand your efforts from there.

With the right scope and tools, there are a relatively few, simple steps required to move from component management to end-to-end service management. The steps include:

- > Building business/IT alignment — developing a common language to identify service levels and defining and prioritizing the services that are critical to business performance
- > Achieving visibility — implementing tools to monitor the end-user experience of critical services and the performance of all the components that contribute to each service
- > Defining service level agreements with QoS metrics such as transaction speeds, responsiveness, and availability
- > Defining processes for QoS reporting and review, to identify and resolve problems before they affect business results

BUSINESS AND IT BENEFITS OF SLM

BUSINESS BENEFITS OF SLM	IT BENEFITS OF SLM
Definition of required service levels: SLM lets the business define IT service levels required to achieve business performance objectives	Cost control: With clear service level objectives, IT can direct spending towards well-defined requirements.
IT alignment with the business: With SLM, IT efforts are prioritized, focused, and operating in line with business objectives	More efficient operations: SLM clearly defines and prioritizes commitments to the business, helping IT to focus and streamline its operations. In addition to improving quality of service, Gartner says that SLM reduces labor costs per IT system component, because repeatable processes increase and firefighting decreases.
Predictable business performance: SLM enables the business to predict results based on guaranteed levels of IT service	Service Quality Reputation: Clear objectives and consistent results increase IT's service quality reputation.
Quantify IT investments: SLA negotiations provide visibility and justification of IT costs necessary to achieve business performance	Job Security: By delivering consistently against commitments the business is less likely to consider outsourcing IT functions
	Sets Boundaries: Setting clear service level agreements guards against expectations creep.

With all these benefits, why are only 12% of IT organizations implementing SLM today? One major deterrent for many businesses is the high financial and organizational price tag of monolithic service management solutions that cost hundreds of thousands of dollars and many months to implement. In a recent conference poll conducted by Nimsoft, CIOs listed the top three problems of these solutions as being 1) high cost, 2) ease-of-use, and 3) functionality (an indication that while the functionality of these tools may be considerable, usability is a problem). To manage a service, you also need to be able to manage all the components on which the service depends, and different components have different forms of management that may not fit well with large, rigid business service management products. Changes in IT infrastructure can compound this challenge, further delaying or disrupting implementation of SLM.

However, implementing SLM doesn't have to involve high costs, long lead times, or business and IT disruption. There are tools and methods available today that enable companies to achieve SLM within a reasonable budget and time frame, placing SLM within reach for virtually all organizations.

BUILDING BUSINESS/IT ALIGNMENT

SLM requires a new way of thinking about IT within the business as a whole, and it requires a new business/IT relationship. This is an on-going process: it needs to begin and continue throughout SLM implementation.

Here are the discussions that need to happen:

- > Initiate conversation with business management (C-levels, LOB managers, etc.) to outline current challenges and benefits that could be achieved through SLM. Pick one or two key services such as sales order processing or customer service as initial targets for SLM. Also outline costs, timelines, and organizational impact.

- > Once there is agreement on the goals, set up a joint task force to identify and document:
 - The most critical business services
 - SLM priority for each service
 - Service inter-dependencies and available status data
 - Current and required service levels
- > Develop an implementation plan, including goals, tasks, timelines, impacts, and responsibilities affecting the IT and business organizations.
- > Once you've started implementing SLM, hold regular project status meetings to review progress with stakeholders.
- > Once SLM is implemented, set up a long term process for compliance reporting and for review and refinement of SLAs.

TOOLS FOR VISIBILITY AND CONTROL

You can't manage what you can't measure. So the first step towards achieving SLM is to obtain a real-time, end-to-end status view of critical business services (the services identified by your joint IT/business task force). Primarily this includes monitoring the end-user's service quality experience *and* the chain of interdependent infrastructure components that enable individual business services.

During this step, you evolve your monitoring tools and processes from a technology-centric view to a service-centric view of your IT infrastructure. New monitoring and visualization tools can help you logically consolidate technology silos and their status data so that IT infrastructure components can be visualized and monitored as unified business services.

To begin this step, you need to make some decisions and some starting assumptions that can be validated as you begin to monitor service performance:

- > Which applications and processes need to be monitored as services?
- > Who are the target end users of these functions? Are there priority differences among the end users?
- > What characteristics affect the end-users' experience of service quality (e.g., general availability, transaction response time, startup time, data retrieval time, compute or rendering time, etc.)?
- > What are the target service levels? (A service level represents the metric, or combination of metrics, necessary to meet your business customer's minimum requirements.)
- > What are the system components that affect the quality of service (e.g., server or desktop capacity and availability, network configuration and bandwidth, application scalability, database capacity, storage access, access to third-party services such as credit-card processing, etc.)?

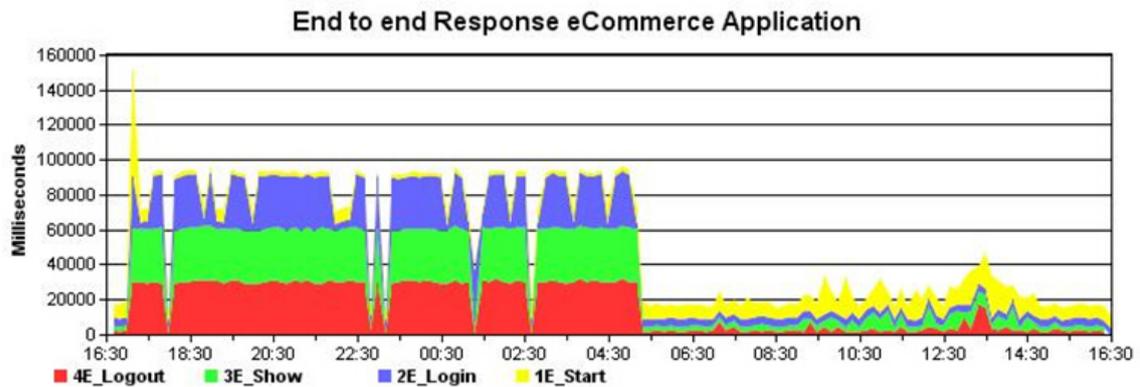
The other key to a quick and successful SLM implementation is to choose the right management tools. Your tools should have:

- > Modules that ***plug easily into existing infrastructure*** to monitor the end-user service experience and performance of the individual components that contribute to service quality.
- > Gateways to allow you to ***leverage existing system management applications***.
- > ***Easily customizable dashboards*** to present end-user experience and allow drill-down to monitor individual components. This is a critical component of infrastructure management and an important emerging category of IT management tools.

MONITORING THE END-USER SERVICE EXPERIENCE

End-user experience is the definitive test of service quality. By using the probes and dashboards (interfaces) provided by your management tools, you can quickly construct a picture of how services are performing from the end-user standpoint. (Note that in some cases, the end user may be another application or service.)

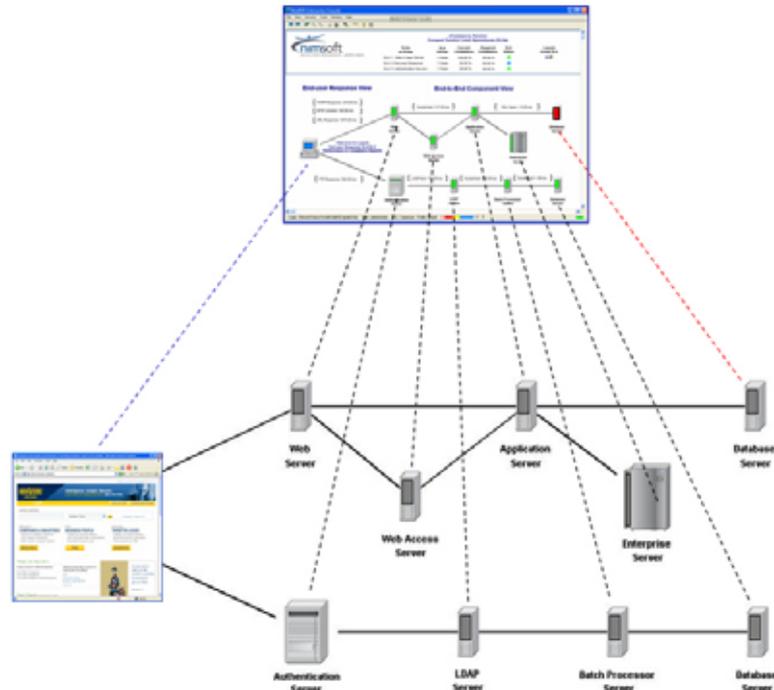
The graph below shows end-user transaction response times and trends for an e-commerce application. Performance problems such as the high response times shown in the graph could impact sales and could even be a warning of impending system failure. Performance dashboards like this one can help you spot problems early and deal with them before they impact business results.



The period of high end-user response measurements may mean that services are not performing as required, possibly leading to business impact such as lost sales, missed deadlines, or customer dissatisfaction.

MONITORING SERVICE COMPONENTS

Although component performance is not the only predictor of the end-user service experience, it does contribute to the end-user experience. And when the end user encounters problems, you need to be able to drill down on components to analyze the source(s) of the problems and how to address issues. For example, if transaction response times are consistently slow, you need to know whether the issue is computational performance, network overload, or latency in retrieving transaction data from the database.



The figure above shows an example of a business service dashboard showing end-user and end-to-end infrastructure components with their real-time alarm status

COMMITTING TO SERVICE LEVEL AGREEMENTS (SLAs)

An SLA is a contract between business and IT that defines the levels of service performance and availability needed to achieve business goals. The agreement, and the dialogue that lead to the agreement, benefit both sides: the business can set business performance objectives based on guaranteed levels of service, and IT gains clear priorities for services and service levels, which in turn drives operational efficiency and helps reduce costs.

The step from service level monitoring to SLAs should not be rushed. As you implement and use your service level monitoring tools, you will begin to discover new relationships between defined services and business performance and between service quality and the components (applications, computers, networks, etc.) that support the services. For example, you might discover very quickly that an e-commerce application slows at certain times due to a database bottleneck, and you might partition the database and add network bandwidth to better distribute that workload. Or you might find that some servers are under-utilized while others are overloaded, so you might use consolidation and virtualization to level both server workloads and application performance.

SLAs need to be based on the business priorities you've identified in business/IT discussions and the service and system relationships you've discovered through your new monitoring tools and processes. Once you've implemented monitoring tools and processes, it's best to live with them for a few months and let these discoveries

happen. You'll know you are prepared to make service quality commitments that support business objectives when you've found the key business/service/component relationships and have made the necessary adjustments to control service levels reliably and confidently.

Here are some things to do as you begin to incorporate SLAs into your business practices.

On the QoS side, consider:

- > From the end-user and business standpoints, where are the major service issues?
- > What system performance parameters (transaction time, responsiveness, compute time, etc.) are most critical to service quality?
- > What are the inter-dependencies? How do different components, alone or in combination, affect quality of service?

On the organizational side, you'll need:

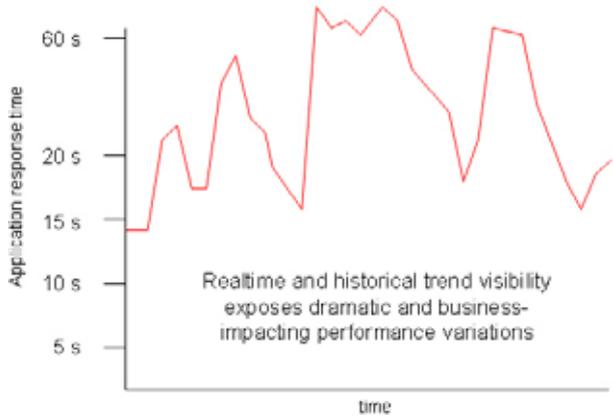
- > Service desk gateways to give IT service personnel immediate visibility and access to service quality information
- > Monitoring, reporting, and feedback processes to support SLAs
- > Designated contacts and stakeholders for SLA discussions
- > An escalation process to address future SLA issues

THE IMPACT OF SLM

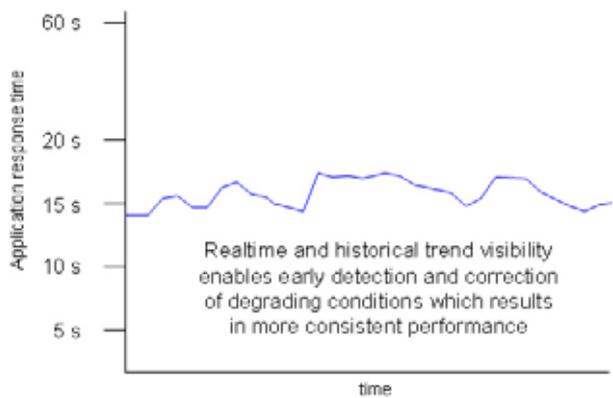
While SLM can offer huge and immediate improvements in IT and business results, you will see even greater benefits over time. The ongoing process of SLM will yield new insights into the relationships between IT infrastructure and business success, providing a powerful tool for continuous improvement in both areas. As you move forward, here are some ways to help your organization take advantage of the potential of SLM:

- > A service level agreement should be a living contract, a powerful tool for continuous improvement of both the IT infrastructure and the business. Be sure to review and update SLAs regularly as business needs change.
- > Encourage IT administrators and service desk personnel to regularly analyze data from your SLM tools and to look for proactive ways to improve QoS.
- > When planning IT infrastructure changes, review them for possible impact on SLAs. In fact, SLAs can be a powerful tool for validation and benchmarking of new systems.
- > SLM can be an on-ramp for other key IT process improvements such as configuration and change management.
- > As platform capabilities such as virtualization and autonomic (self-configuring and "self-healing") become more sophisticated and more widely available, SLM tools and processes can leverage these capabilities to make real-time adjustments that help ensure and improve service quality.

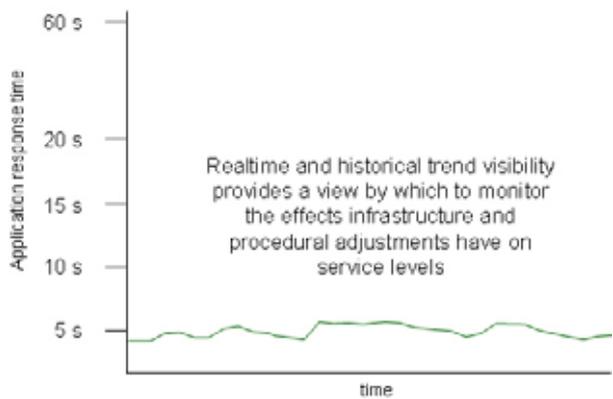
The figure below shows how service level visibility supports continuous improvement initiatives. The sequential graphs below depict progressive quality improvements with heightened service control.



Before SLM: Service quality varies widely, compromising business performance.



SLM in place: Response times are consistent and in compliance with service level agreements.



Continuous improvement through SLM: Through historical analysis, IT has found ways to further improve service quality, exceeding SLAs and giving the business capacity for growth.

TOOLS FOR SERVICE LEVEL MANAGEMENT

As Forrester Research points out, the largest, most expensive system management vendors are far from providing turnkey SLM solutions.³ And in fact, turnkey solutions may be neither practical nor possible, since IT infrastructure is always evolving. The best SLM tools are those that fit your budget, that can plug simply and easily into your existing infrastructure, taking advantage of the basic monitoring functions built into your software and hardware, and that give you the right set of monitoring, visualization, analysis, and reporting tools.

Across the industry analysts concur that you need to select an SLM solution that performs all of the following functions:

- > Incorporates and aggregates multiple types of metrics from multiple management disciplines and tools. At a minimum, the product must be able to integrate service desk metrics along with IT infrastructure availability and performance metrics.
- > Compares measured results to defined SLAs to determine success or failure.
 - Calculates service level compliance using results collected during service hours (e.g., "8:00 a.m. to 6:00 p.m. weekdays" or "7x24 with the exception of Sundays from 12:00 a.m. to 2:00 a.m.") for contracted service level reporting periods (one day, week, month, etc.).
 - Supports percentage-based calculations such as "99.95 percent availability during service hours" or "85 percent of transactions must complete within three seconds."
 - Performs time-based calculations for SLAs, such as "no outage longer than 15 minutes," "no more than 4 outages during the reporting period," or "8 minutes of downtime during peak hours is a violation."
- > Allows users to input defined service levels, SLA targets, terms, or metrics for different classes of service.
- > Provides a calendaring function to specify service hours, planned service uptime, and scheduled maintenance periods for different classes of service.
- > Measures results (either by direct monitoring or testing, or through an intermediate source) and stores them in a database or data warehouse for reporting and trend analysis.
- > Advanced SLM solutions will keep a running, up-to-the-minute display of real-time service level results, and will help IT operations staff avoid trouble by predicting when service levels will not be met.

RESULTS WITHIN REACH

Analysts agree that increasing business dependence on IT performance and reliability will ultimately drive most organizations to SLM. Given this trend and the benefits, there is no reason for organizations to delay implementing SLM in their operations processes.

While there are no instant SLM solutions, achieving service level management doesn't have to take years or take up most of the IT budget. Simple, powerful, and affordable tools and methods can be implemented quickly, and SLM can pay for itself many times over in improved business results. In fact, Forrester Research predicts that SLM through integrated IT management dashboards will enable IT management to reduce IT costs as much as 30% while realizing value increases of 10% to 15% in the first year.⁴ With this kind of return, SLM should be within reach of every business and IT organization.

^{3,4} Mendel, O'Neill, Garbani and Iqbal. "The Infrastructure Management Pendulum is Still in Full Swing." Forrester Research, Inc. April, 2006.



ABOUT NIMSOFT

Nimsoft's mission is to deliver business-focused Service Level Management solutions that customers can easily deploy and use. Nimsoft solutions are used by hundreds of companies across diverse industries to manage complex networked systems and meet service level agreement targets. Nimsoft solutions combine advanced SLM functionality and broad platform coverage with unprecedented ease of implementation, deployment, and use. For more information, visit www.nimsoft.com.

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