



CASE STUDY

Simac ICT Netherlands ::

Providing a Differentiated Service Offering with the NetQoS Performance Center

Industry: Managed service provider

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- Guido Coenders, Solution Manager of Networking & Security for Simac



Background:

Simac ICT Netherlands, based in Veldhoven, manages the complete process from design, implementation and operation of ICT (information & communication technology) infrastructures. Its services include consultancy, system and network integration, project management, facility management, managed services, maintenance, remote employee management, and product supply. In Simac's vision technology is a consumer good that enables IT professionals to better manage the processes within their organizations. More information about Simac is available at www.simac.nl.

Challenge: Lack of Visibility into Network and Application Performance Problems

Like many service providers, Simac took a traditional approach to network management by focusing on availability of network devices. Focusing solely on whether devices are up or down made it difficult for Simac's network team to manage application performance across its network while constantly adding new customers, applications, and servers. Fault management is necessary but not sufficient in a world where application traffic across the wide area network (WAN) is increasing in both volume and complexity. Using only conventional network products focused on fault management, such as Computer Associates Spectrum and eHealth tools, Simac could not monitor application performance across its network and pinpoint the cause of problems accurately for customers. The company had no insight into performance metrics such as application response times, which are key to understanding how applications are performing across the network for end users.

Simac Challenges:

- » Provide outstanding service to its expanding roster of customers
- » Troubleshoot customer issues more quickly and efficiently
- » Provide access to custom, secure performance reports for each customer

NetQoS Performance Center Benefits:

- » End-to-end visibility into application performance and network traffic for each customer
- » Quick isolation of performance delays for rapid troubleshooting and restoring service levels to expected values
- » Cost savings by requiring fewer engineering hours
- » Detailed, real-time performance reports with role-based permissions for each customer
- » A differentiated service offering that places Simac at the head of the market for operating ICT infrastructures

“When we do have performance issues, the network is often blamed, but we did not have the data to prove the true cause,” said Henry van den Heuvel, Network Management Specialist for Simac.

As a result, Simac decided to expand its toolset beyond fault to performance and began a search for products to quantify network and application performance across its network and speed troubleshooting. Simac believed the ability to solve customer issues more quickly and improve application delivery across the network would serve as a competitive differentiator.

Solution: The NetQoS Performance Center

Simac’s technology partner Simple Management Technologies B.V. (SMT) implemented a proof-of-concept project with the NetQoS® SuperAgent® and NetQoS ReporterAnalyzer™ modules of the NetQoS Performance Center product suite. SuperAgent provides end-to-end application response time performance monitoring, giving organizations visibility into how well the network infrastructure is delivering applications to end users. SuperAgent isolates the cause of performance problems to the network, server or application and launches automatic investigations for immediate troubleshooting.

NetQoS ReporterAnalyzer is a network traffic analysis tool that provides global visibility into WAN traffic, enabling an understanding of how application traffic and user behavior is impacting network performance. ReporterAnalyzer captures a rich set of traffic statistics from Cisco® IOS® NetFlow or other IPFIX-enabled routers and switches to identify which applications and users are using bandwidth, and when, allowing network professionals to make informed decisions in troubleshooting and capacity planning.

“Within two weeks of deployment, SuperAgent helped us solve a customer Citrix issue we had been troubleshooting for nine months without success,” said Guido Coenders, Solution Manager of Networking & Security for Simac. “We decided to use both SuperAgent and ReporterAnalyzer to begin troubleshooting customer issues.”

NetQoS SuperAgent Key Features:

- » Monitoring of all TCP-based applications for all users, 24x7
- » Passive, server-side monitoring of all real user interactions for monitored applications
- » Customized views into response time data
- » Intelligent baselines that factor in time-of-day, day-of-week, and day-of-month showing normal performance for applications
- » Percentile-based or static thresholds for alerting and actively gathering diagnostic data when upper boundaries of acceptable performance are crossed
- » Analysis of response time between each tier of multi-tier applications
- » Scalable distributed architecture to handle large networks

NetQoS ReporterAnalyzer Key Features:

- » Tracks 100% of all Cisco NetFlow/IPFIX traffic on the network
- » Top interfaces, protocols, and hosts across the entire network in a single view
- » Rate, volume, and utilization measurements by protocol, host, and conversation
- » Applications defined by a combination of ports, IP address(es), and Type of Service (ToS)
- » Real-time reports and alarms at one-minute granularity for every interface on the network
- » Eight-hour, daily, weekly, monthly, yearly, or customizable time periods
- » Stores up to one year's worth of detailed enterprise-wide data
- » Baseline views help identify abnormal traffic patterns
- » Real-time visibility into how QoS is prioritizing network traffic to determine if applications are being classified appropriately

Results: Performance-based Troubleshooting as a Competitive Differentiator

Simac's Diagnostic Service Offering

Convinced of the benefits of NetQoS SuperAgent and NetQoS

ReporterAnalyzer for troubleshooting, Simac began to offer the tools as a "Diagnostic Service" to customers. The SMT proof-of-concept showed Simac that NetQoS tools could help them develop new business by:

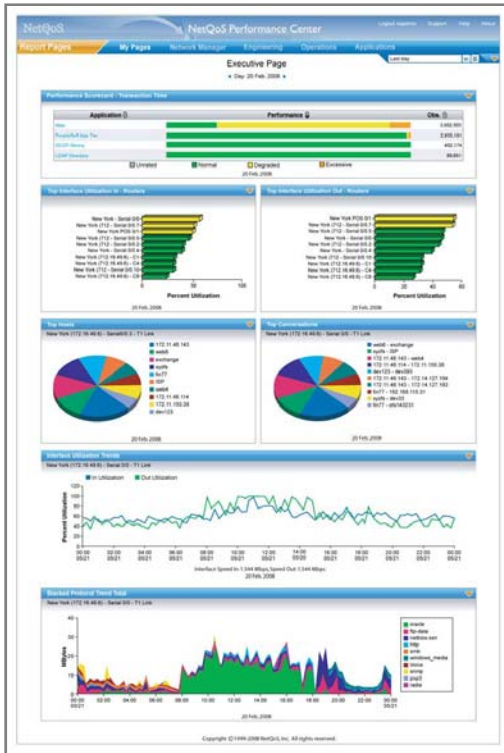
- » Adding new services via a quick troubleshooting tool as well as a permanent monitoring tool that provides end-to-end visibility between the users and the data center on an ongoing basis
- » Delivering higher quality services than the competition
- » Solving customer issues quicker than the competition
- » Providing a performance portal for customers to view the consistently high levels of service delivered by Simac

The Diagnostic Service is an add-on service for customers who have a specific performance issue. Simac deploys SuperAgent to isolate the cause of performance problems to the network, server or application. If SuperAgent discovers a network issue, Simac uses ReporterAnalyzer to troubleshoot it. Simac follows up the service with an analysis report for each customer.

In addition, because NetQoS products are Web-based, Simac can provide its customers with their own secured views into the data. With the appropriate permissions and roles, customers can see only the data relevant to them.

Simac also has its own views of its internal delivery infrastructure as well as into the individual customer data for troubleshooting and reporting.

"We are so pleased and confident in the Diagnostic Service using NetQoS tools that if we do not find the problem, we will only charge the customer half the original fee," said van den Heuvel.



NetQoS Performance Center

Simac has sold the service to about 15 customers in the Netherlands and other locations across Europe and is also offering a permanent performance monitoring service. Beyond the additional revenue and quicker troubleshooting benefits, the Diagnostic Service is also helping to save costs by decreasing engineering hours for Simac. In fact, van den Heuvel won Simac's annual "Innovation" award for implementing NetQoS and creating the Diagnostic Service.

Troubleshooting with the NetQoS Performance Center

Simac relies on the NetQoS Performance Center to detect performance problems by providing alerts and notifications from within their Spectrum console. Here are two examples of how the SuperAgent and ReporterAnalyzer modules helped solve application and network performance issues that had been plaguing Simac and its customers for months:

SuperAgent Discovers the Cause of Slow Application Response Times for a Large Retailer

Simac manages the network infrastructure of a large retailer in the Netherlands with more than 1,500 stores. The retailer has a Citrix environment, and for more than six months, had a problem with slow response times across all main applications. Simac spent many hours using conventional tools such as SNMP and Computer Associates' eHealth and Spectrum tools as well as consulting time but could not find the problem.

Within a few weeks of deploying SuperAgent, Simac found three problems:

- » The servers did not have enough memory to function properly.
- » Load balancing was not functioning properly.
- » There was a single point of failure: One main server was handling all the main applications.

Everyone had blamed the network for this issue, but Simac was able to use SuperAgent to show that it was a server issue and pinpoint the problems.

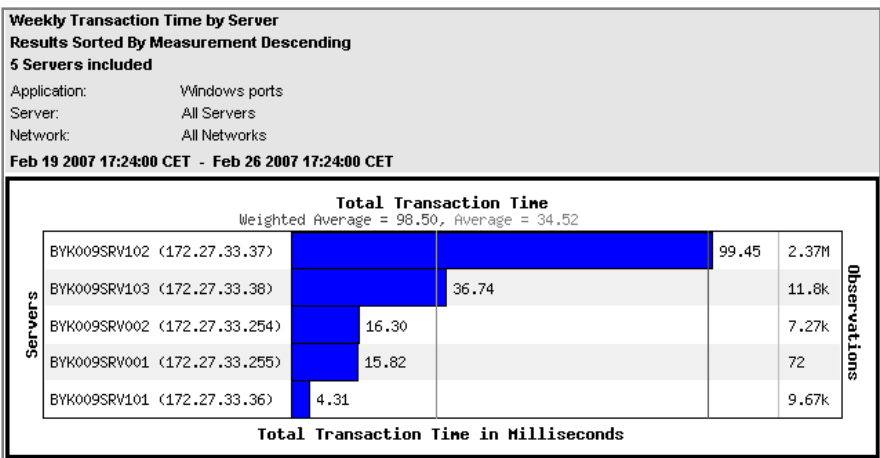


Figure 1: NetQoS SuperAgent graph showing the overloaded server in the load balancing scenario.

ReporterAnalyzer Solves High-Volume Traffic Issues for a Large Hearing Aid Retailer

Simac solved another performance issue for a large hearing aid retailer with 100 shops. Traffic mushroomed more than 500 percent overnight on its central uplink, spiking from four mbps to 40 mbps. The link was not saturated, but it did cause problems across the local links to the stores. Simac and the customer used sniffers and other conventional tools but could not find the problem. This condition persisted for four months, with the network, server, and application administrators finding no problems. Within two days of using ReporterAnalyzer, Simac discovered that 80 percent of the traffic on this link was LDAP authentication traffic resulting from a printer driver. The customer had recently updated its printer drivers, but an error caused the printers to constantly try to authenticate over this link. This was an easy fix for the customer once Simac had used ReporterAnalyzer to diagnose the problem.

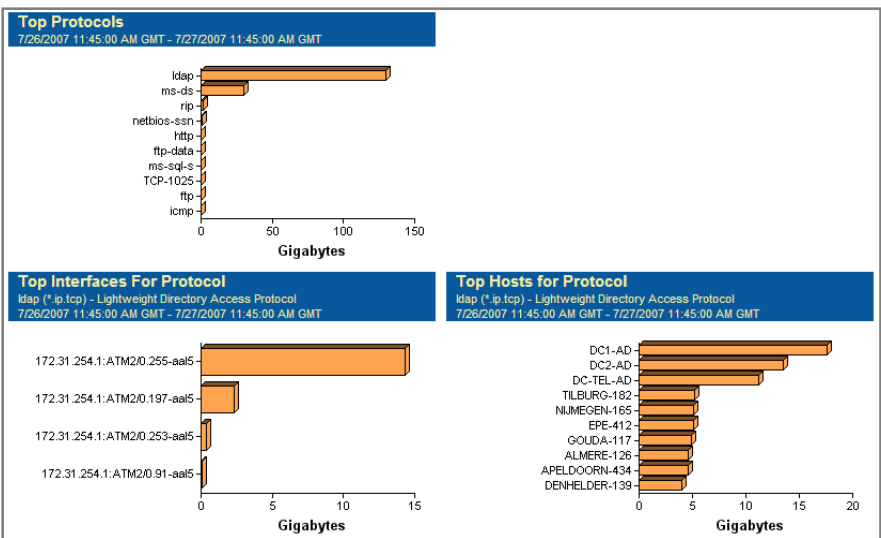


Figure 2: NetQoS ReporterAnalyzer shows LDAP as one of the top applications on the network, taking up almost 130 Gigabytes of traffic, and identifies which interface was impacted and which printers were responsible for the traffic.

The Benefits of Performance-Based Management

In an increasingly complex networked world, Simac found the performance-based tools it needed to rapidly troubleshoot and solve customer issues. By shifting its focus away from pure fault management – which is largely under control – to performance-based management with the NetQoS Performance Center, Simac can concentrate on how the network is impacting application service delivery, troubleshoot issues more quickly, and deliver better customer service as a result. Its Diagnostic Service has already provided an additional revenue stream for the company, improved the quality of customer service by solving issues more quickly, and decreased the number of engineering hours needed for troubleshooting. As customers realize the value of having end-to-end application response time monitoring and network traffic analysis capabilities, Simac plans to sell more permanent monitoring services.

About NetQoS SuperAgent

NetQoS SuperAgent measures end-to-end application response time without endpoint agents, giving IT and executive staff vision into how business applications are performing for end users companywide. SuperAgent separates response time into network, server, and application delay components and launches automatic investigations into problems, enabling rapid troubleshooting of performance bottlenecks. SuperAgent also measures the impact of infrastructure changes and reports on service level agreement compliance to document consistent levels of service quality for internal users and for external service providers.

About NetQoS ReporterAnalyzer

ReporterAnalyzer provides global visibility into WAN traffic, enabling an understanding of how application traffic is impacting network performance. ReporterAnalyzer captures a rich set of traffic statistics from Cisco IOS NetFlow or other IPFIX-enabled routers and switches to identify which applications and users are using bandwidth, and when, allowing network managers and engineers to make informed decisions in troubleshooting and capacity planning. ReporterAnalyzer's product architecture scales to handle the number of interfaces and volume of flow data in the world's largest networks, providing real-time visibility into 100 percent of enterprise-wide network traffic and access to a full year's worth of detailed data.

About the NetQoS Performance Center

The NetQoS Performance Center unlocks the intelligence needed to quantify network and application performance across an entire organization with end-to-end application response time monitoring, network traffic analysis, device performance management, long-term packet capture and analysis, and VoIP performance monitoring. Via a single Web-based management console, the NetQoS Performance Center integrates the data in customized views to help organizations optimize application delivery, solve problems faster, mitigate the risks from change, and make the most efficient use of resources. With role-specific views for different groups in an IT organization, such as network engineering, operations, IT service managers, and IP telephony management, the NetQoS Performance Center enables staff at all levels to:

- » Measure end-user application response times
- » Provide consistent application service delivery
- » Understand how infrastructure changes affect network and application performance
- » Isolate performance problems to the application, server, or network
- » Identify the applications and users consuming bandwidth, and when
- » Avoid unnecessary WAN costs
- » Correlate network performance to VoIP call quality of experience
- » Manage the convergence of voice, video and data
- » Identify virus or denial of service attacks and unauthorized application usage

About Simac

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About SMT Simple Management Technologies B.V.

SMT is a company with a proven track record of serving the most demanding of national and international customers.

Our goal is to continuously help our customers keep in control of their increasingly complex and ever-expanding ICT infrastructures and services, and to lower their operational costs. To achieve this aim we at SMT use “best of breed” software applications, supported by highly skilled and motivated personnel with a detailed knowledge of the subject material and supplemented by excellent training courses and local technical support.

SMT ensures that its customer's ICT infrastructure and business-critical applications have maximum availability, provide optimum performance and operate securely.

For more information, visit

SMT's website at www.smtware.com or call +31-(0)79-3317450.

About NetQoS Inc.

NetQoS provides network performance management software and services that improve application delivery across the world's most complex networks. More than 900 service providers, government agencies, and large enterprises – including half of the Fortune 100 – use the NetQoS Performance Center to monitor application service levels, troubleshoot problems quickly, and plan for change. Representative NetQoS customers include Chevron, Lockheed Martin, American Express, Hilton Hotels, Siemens, Boeing, Deutsche Telekom, NASA, Reuters, and Barclays Global Investors. Headquartered in Austin, Texas, NetQoS has R&D centers in Austin and Raleigh, N.C., and regional sales offices in London and Singapore.

To learn more about NetQoS or any of its network performance management products, please visit www.netqos.com.

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