

Transforming SME Network Operations With Paessler PRTG Network Monitor

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Executive Summary

Network managers at small and medium enterprises face many of the same challenges that their counterparts at large enterprises face, plus a few of their own. For instance, networking professionals at smaller companies often operate enterprise-grade technologies with fewer resources and smaller budgets. Therefore, these individuals need network availability and performance monitoring systems that are tailored to the technical requirements and business needs of small and medium enterprises.

Enterprise Management Associates research has identified the key challenges that smaller companies face with network operations and identified the management tool capabilities that deliver the most value to these organizations. This white paper explores these findings and examines how Paessler PRTG Network Monitor, a leading network monitoring tool, addresses the unique needs of small and medium companies.

Network Operations Challenges for Small and Medium Enterprises

Network managers at small and medium enterprises (SMEs) have little margin for error when delivering network connectivity and services. The infrastructure environments they manage are often as essential and complex as those found in larger enterprises. And yet, these smaller organizations must operate with limited budgets and fewer engineers and administrators. Given this situation, these network operations teams must be careful to select network management tools that address their unique needs.

First, SMEs need monitoring tools that give them end-to-end network visibility. In a newly published research report, “Network Management Megatrends 2016: Managing Networks in the Era of the Internet of Things, Hybrid Cloud, and Advanced Network Analytics,” Enterprise Management Associates (EMA) reported that a lack of this end-to-end network visibility is the number one network operations challenge for small (29%) and medium (28%) enterprises. Network monitoring tools with comprehensive network maps that show dependencies and network monitoring data and alerts can greatly improve end-to-end visibility.

EMA’s Megatrends 2016 research also found a number of other top network operations challenges that affect companies of all sizes. Many companies (24%) lack resources in terms of people and budget. Others don’t have adequate visibility of and control over external cloud services (23%), and some lack cross-domain visibility (19%).

To meet the challenge of limited resources, network managers need tools that are affordable, easy to deploy, and easy to use. To address a lack of visibility into the external cloud and across infrastructure domains, they need a network monitoring solution that can see beyond the network infrastructure realm. With the right protocol support, integrations, and data modeling, a network monitoring solution can provide this more comprehensive visibility.

Unified Network Monitoring Essential to Effective Network Operations

SMEs must also avoid the trap of a fragmented network management toolset. EMA's Megatrends research has found that typical enterprises use anywhere from four to 15 network monitoring and troubleshooting tools, and some use more than 25. Smaller companies are not immune to this tool sprawl. In fact, 31% of small enterprises use 11 to 15 network monitoring and troubleshooting tools.

Large network management toolsets lead to ineffective network operations. EMA research has found that enterprises with 11 or more network monitoring tools detect only 48% of network problems before end users become aware of them. In contrast, enterprises with four to 10 tools catch 64% of network problems before end users detect them, and network operations teams with only one to three network monitoring tools are able to detect 71% of network problems before users feel them. It should be the goal of every network manager to detect and remediate problems before end users experience a service impact. By the time an end user reports a network problem to the IT organization, the business is already being negatively impacted. As network operations troubleshoots the problem, the business is already in danger of missing revenue opportunities, losing productivity, and tarnishing its brand.

Lost productivity also extends to the network operations team. Ideally, engineers and administrators should be spending as little time as possible fixing problems. The enterprise benefits most when these specialists can devote time to optimizing the network and developing new services. Unfortunately, large, fragmented toolsets block this goal. While organizations with one to three monitoring tools spend 33% of their time on reactive troubleshooting, organizations with 11 or more tools spend 38% of their time on such tasks. This is a small but significant difference that will affect an SME's bottom line.

Characteristics of the Ideal SME Network Operations Platform

Enterprises usually frame their evaluation of network management systems in terms of business needs and technical requirements. EMA's Megatrends research has determined that from the business perspective SMEs need management tools that are easy to use, cost efficient, and well integrated with other management systems.

"Ease of use" and "integration with other IT management products" tied as the top two business requirements of network management products, with 37% of enterprises of all sizes picking both. Small enterprises (45%) were especially concerned with ease of use, which reinforces the notion that these companies have limited numbers of skilled personnel.

Low cost and the ability to get quick value from network management tools were also very important to all enterprises. Thirty-five percent (35%) of network infrastructure teams required low maintenance costs, and this was more important to small companies (40%). A low total cost of ownership was a top requirement for 33% of enterprises, and a rapid return on investment was essential to 31% of them.

In terms of technical requirements, customizable reporting topped the wish list, with 37% of all enterprises naming it as a top need. Log file analysis (35%) and specific support for virtual server environments (35%), cloud environments (33%), and virtualized network devices (32%) rounded out the list of top requirements for all enterprises. Support for cloud environments was especially important to small enterprises (40%).

Transforming SME Network Operations with Paessler PRTG Network Monitor

Paessler's PRTG Network Monitor is a network availability and performance monitoring system tailored to the needs of network managers at SMEs. It consolidates many of the network monitoring and troubleshooting capabilities that network managers may be getting today from multiple tools, such as device discovery, device monitoring, event management, and alerting. Thus, PRTG presents an opportunity for smaller companies to eliminate the tool sprawl that leads to ineffective network operations.

PRTG offers all of the technical features smaller enterprises have identified as delivering the most value to their organizations. It includes customizable reporting that network administrators can use to create scheduled or on-the-fly customized reports and export them in PDF, CSV, or XML format. PRTG's maps also offer a strong reporting capability, with dashboards that can publish live and historic data.

The syslog and SNMP trap sensors in PRTG can analyze up to 10,000 log files per second, addressing the need for log file analysis. For the many enterprises that require virtual server environment support and specific cloud support, PRTG offers out-of-the-box monitoring of VMware vSphere, Microsoft Hyper-V, XenServer, Virtuozzo, Docker, Amazon Web Services, and leading cloud-based applications like Salesforce, DropBox, and Office 365.

PRTG can monitor device metrics (via SNMP, WMI, etc.) and network flows (NetFlow, jFlow, IPFIX, etc.), and its monitoring extends beyond the network to applications, servers, virtual server environments, and storage.

PRTG also addresses many of the business requirements of small and medium enterprises. It is a low-cost system that is easy to deploy and configure. Designed to help network administrators at smaller companies manage their infrastructure more easily, PRTG simplifies discovery and mapping of network devices with support for products from leading infrastructure and application vendors. The product is designed to start monitoring infrastructure immediately upon installation, which accelerates time to value and return on investment. It also offers customizable sensors that can be tailored to any device, application, or service an IT organization needs to manage.

EMA Perspective

Network managers at SMEs face many of the same network operations challenges as their counterparts at large enterprises, but EMA's research has revealed that they especially struggle with end-to-end network visibility. These network managers need low-cost, easy-to-use tools that not only can manage the network but can also provide insight into applications, servers, storage, cloud services, and more. With a unified approach to network monitoring, SMEs can maximize the effectiveness of operations, even if they are forced to operate with smaller budgets and limited skillsets.

Paessler PRTG Network Monitor is a leading network availability and performance monitoring tool that is designed to address the unique needs of small and medium enterprises. Network managers at smaller companies who have identified a need for a new network monitoring solution should evaluate PRTG to determine if it meets their requirements.

Transforming SME Network Operations With Paessler PRTG Network Monitor

About Paessler AG

Paessler AG's award-winning PRTG Network Monitor is a powerful, affordable, and easy-to-use Unified Monitoring solution. It is a highly flexible and generic software for monitoring IT infrastructure already in use at enterprises and organizations of all sizes and in all industries. Over 150,000 IT administrators in more than 170 countries rely on PRTG and gain peace of mind, confidence, and convenience. Founded in 1997 and based in Nuremberg, Germany, Paessler AG remains a privately held company that is recognized as both a member of the Cisco Solution Partner Program and a VMware Technology Alliance Partner. Learn more about Paessler and PRTG at www.paessler.com.

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals and IT vendors at www.enterprisemanagement.com or blogs.enterprisemanagement.com. You can also follow EMA on [Twitter](#), [Facebook](#) or [LinkedIn](#).

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