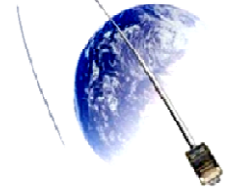# Improving Business Service Uptime

Proactive network performance management solutions ensure optimal business service for the Dynamic Enterprise

Introduction

It's hard to overestimate the importance of the network to today's enterprises. The network — by transporting voice, data, and video traffic — has essentially become the backbone of the business, meaning that its performance and availability are now critical success factors for both the IT organization and the business as a whole.

While the role and importance of the network is clear, organizations still struggle to deliver against service level agreements (SLAs) and enterprise requirements. According to Enterprise Management Associates, the average organization suffers 61 hours of downtime each year, which translates into 99.3% uptime.[1] While greater than 99% uptime may seem good, it's often simply not good enough when you look at the impact.

Downtime costs vary widely by industry, application, and organization, but industry analysts estimate the cost of downtime as anywhere from $50,000 to a $1 million per hour. Even when the cost is toward the lower end of the range, 61 hours of downtime can be a major detriment to the bottom line. And the network doesn't have to be down to cause revenue and productivity losses — performance degradation is rampant and can wreak havoc on employee productivity and customer satisfaction.

Customer service and satisfaction are cornerstones of a profitable, thriving business in today's tough environment — and there's a direct correlation between ensuring maximum network uptime and ensuring the high quality of the customer experience. The direct costs of downtime and performance problems are low productivity and unhappy customers who are more likely to churn, resulting in future lost sales and higher customer acquisition costs.

The time is ripe for IT organizations to take steps to improve network uptime and performance. This paper looks at the reasons why it's been so difficult for IT departments to meet higher service level targets for the network, and how network performance management can overcome the challenges of ensuring that business services are always on.

The average organization suffers 61 hours of downtime each year.
— ENTERPRISE MANAGEMENT ASSOCIATES

Dynamic Complexity — The State of the Network Today

If your IT organization spends an inordinate amount of time "fighting fires" on the network, only to have the number of downtime incidents and the length of outages or degradations increase, you're certainly not alone. Despite monitoring tools and intelligent devices, the network has become an untamable beast for many companies.

The problem is twofold:

- Complexity is constantly increasing: Involving much more than a router and a little bit of cable, today's network incorporates a gamut of sophisticated components needed to handle voice, data, and video traffic. PBX, VoIP, SAN, WAN, LAN, switches, routers, firewalls, Web security gateways, WAN accelerators — the network is actually multiple networks with many types of devices. And making it even more dynamic and difficult to manage are the mobile end points or devices that are connected and disconnected at will to and from the network.

[1] "Decreasing IT Operational Costs by Accelerating Problem Resolution," Liam McGlynn, Enterprise Management Associates, March 19, 2009

- There's a frustrating mix of disparate tools and efforts: Managing today's network often consists of a mix of disparate tools and manual efforts that network administrators have to make in order to gain access to limited performance data. When administrators must manually consolidate and analyze data from separate tools for each technology area in the network, it becomes an extremely time-consuming effort to diagnose root causes and prevent problems from occurring in the first place. As administrators spend a significant chunk of time on these manual efforts, it leaves little or no time to proactively check and maintain the health of the network and the applications running on it.

From enabling a collaborative workforce and centralizing management processes to supporting business continuity and regulatory compliance, IT managers face the constant challenge of ensuring the availability and performance of evolving networks.

— MANAGED APPLICATION ACCELERATION BRINGS OPPORTUNITY AND CHALLENGES, YANKEE GROUP, MARCH 2009

Making Proactive Management a Reality

One way to improve uptime is to prevent downtime from happening in the first place. To do this, IT organizations need the ability to proactively monitor and manage network and application performance to prevent problems from occurring. They need visibility into the entire network at once — across devices, vendors, and geographies — and they need it from one single tool.

The other way to improve uptime and performance is to speed the ability of administrators to troubleshoot a problem once it occurs. This means eliminating manual efforts and disparate tools, and instead giving administrators a fast, intuitive way to quickly identify the root cause of the problem.

Companies that implement a comprehensive, end-to-end network performance management solution can speed response time and prevent problems from occurring in the first place. A network performance management solution can accomplish this by delivering:

- Deep insight and visibility into the entire network infrastructure across multiple vendors, devices, and geographies
- Continuous measurement of performance and quality of service
- Threshold settings and alerts that provide advance warning of potential problems before they affect quality or performance
- Actionable information to solve issues faster and prevent problems from occurring

As part of an intelligent infrastructure, network performance management can help businesses achieve what is called the Dynamic Enterprise — bringing together people, processes, and knowledge with real-time communications and conversations to turn every single interaction into a business opportunity. Network performance management solutions help accomplish this by ensuring the availability and optimal performance of business services so that companies can deliver the ideal customer experience — whether that's sales, service, or support.

A Complete Network Performance Management Solution

 VitalSuite® helps organizations optimize network performance by providing a comprehensive solution for monitoring the entire network infrastructure from a single, consistent, and easy-to-understand user interface. It delivers end-to-end, Web-based visibility into geographically dispersed, multi-vendor, and multi-technology converged infrastructures.

 VitalSuite provides both historical and near real-time views into everything from complex contact center transactions to mission-critical network resources. Its carrier-grade scalability provides support for millions of performance-monitored objects, allowing IT managers to monitor, analyze, and predict performance from a single centralized location. With VitalSuite, companies can more easily and effectively analyze the potential impact of new applications or services being added and plan more accurately for these changes.

In addition to the core solution, three complementary modules complete the VitalSuite offering for enterprises: VitalSuite Real-Time Event Analysis for up-to-the-minute event correlation and advanced thresholding; VitalSuite Application Performance Management for ensuring an optimal end-user experience; and VitalSuite Advanced Reporting software for enabling customizable reporting for network planning and tuning to optimize network resources.

"So easy to use that we didn't train our staff. "

— A MAJOR EUROPEAN COMMUNICATIONS SERVICE PROVIDER

Conclusion

By replacing or complementing disparate monitoring and management tools with an end-to-end network performance management solution, enterprises can achieve greater uptime, faster problem resolution, and better performance. At the same time, VitalSuite's easy-to-use interface and multi-device/multi-vendor support ensures higher IT staff productivity and efficiency, reduced network expenses, and lower IT staffing and travel costs.

What's more, by helping companies meet SLAs and other requirements needed to ensure the ideal customer experience, VitalSuite can help increase customer loyalty and drive long-term growth.

The bottom line is that if an average 99.3% uptime simply isn't good enough for your business or your customers, the solution could be VitalSuite — a critical link in achieving a truly Dynamic Enterprise.

Application Traffic

Custom Delivery of SLA, Alarm, and Reporting Detail

Remote Tests & Diagnostics

Secure Web-Based Customizable Portal

Pre-Built & Customizable Reporting

Agents, TCP/IP

Proactive Troubleshooting

Application Layer
CIRCUIT & PACKET   IP SERVICES

SNMP RMON

VitalSuite™ Performance Management
VitalApps   VitalART   VitalNet   Real-Time

Service Control Layer
PUBLIC SWITCHED TELEPHONE NETWORK   INTERNET/PUBLIC DATA NETWORK

Bearer
Control
METRO OPTICAL   ACCESS   CORE

SNMP RMON

Network Transport Layer

Real-Time

Topology Maps

Adaptive Monitoring

End-To-End Transport Path View

Historical

VoIP Network & Voice Metric Monitoring

Capacity Planing & Trend Analysis

Long Term Archiving

Detail Device Views

Advanced Performance Event Filtering and Notification for SNMP Devices

Alcatel·Lucent
Enterprise

PVA