

Overview

With more than a thousand customers spanning the globe and the growing popularity of their Advanced Network Monitoring service, Perot Systems needed an easily scalable approach to manage an increasing number of customer networks as well as their corporate backbone without additional personnel. Eye of the Storm® (EYE) was chosen as their single network monitoring platform.

Perot Systems Readies Infrastructure for IT Services and Business Solutions with EYE for Network Management

IT services can be transformative in today's information economy, delivering a competitive edge to companies who use them effectively to keep businesses solvent and cost effective in tough economic times. But acquiring the skills and expertise to implement and remain current with the abundance of rapidly changing technological solutions can take resources beyond those of even large enterprises. For more than two decades, Perot Systems has been a worldwide provider of information technology services and business solutions, developing the right experience and expertise by working to keep customers in a variety of industries ahead of the curve. Central to the technology and business solutions designed and implemented for end customers is the network as it provides the critical connectivity and economy of scale required to deliver IT services. Perot Systems uses Entuity's Eye of the Storm (EYE) as one of its key network management solutions for its roster of clients worldwide.

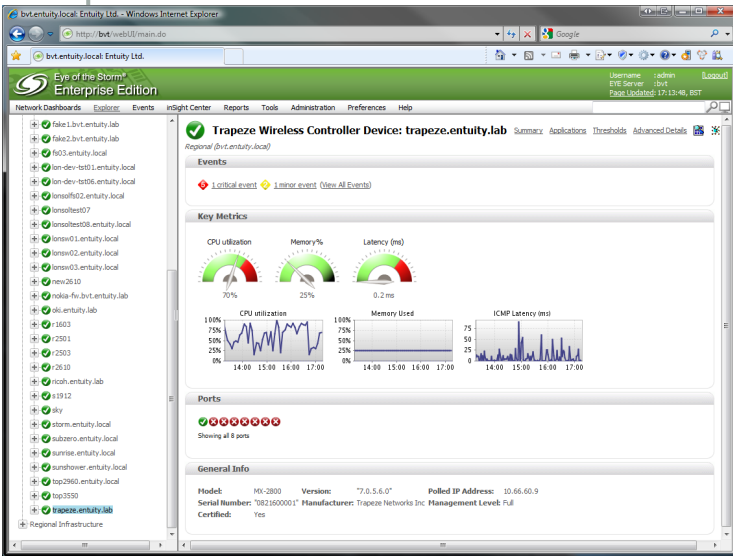
With more than a thousand customers spanning the globe, the scope of many network projects routinely undertaken by Perot Systems trumps that of the traditional enterprise. Where a typical enterprise network will comprise of 20-50 devices, Perot Systems needed an easily scalable approach to manage nearly 4800 devices without additional personnel. For each new customer, Perot Systems must properly plan and configure the customer's network while ensuring the adequate infrastructure is in place to support current and future needs. With EYE, Perot Systems is able to tackle the challenge of managing a sizeable number of devices, and the exponentially higher number of associated network elements.

An Integrated Approach for Efficiency

A properly provisioned and operating network infrastructure is at the heart of the business solutions Perot Systems provides to its customers. Perot Systems was in search of a scalable way to provide that infrastructure and

also a flexible approach to provide customized network management solutions catering to customer requirements, all without increasing operational costs.

Historically, Perot Systems used three separate applications to provide event detection and reporting services. An additional consideration was Perot Systems' own corporate backbone that was expanding for additional capacity and required a solution that would work for both its own corporate network and those of its customers.



EYE unifies network performance, fault, and inventory information for effective management

Operating with three separate applications created a number of business challenges. To start, the network operations staff had three different views of network activity to track. Without a single, unified view of the network, it was difficult for Perot Systems to access a consolidated glimpse of network activity. In addition, each separate application polled the same network devices for similar data, creating additional redundant traffic on the network, while also affecting the resources of the hardware that was being polled – both contributing to overhead costs. Additionally, managing three applications required more administrative effort to support.

The most immediate challenge to Perot Systems' business was its ability to efficiently and effectively service its customers. With a customer base that cuts across many industries and spans the globe, the demands of Perot Systems' customers are as diverse as its businesses. Perot Systems needs to be able to provide network management reports and a guarantee that stringent Service Level Agreements (SLAs) are being met in a variety of formats. From three platforms, it proved difficult to

synchronize the information imperative to meeting SLAs, providing effective fault and performance management, and reporting on network activity.

Insight to Resolve More

With EYE, Perot Systems was able to migrate from three different platforms for fault management, performance management and reporting, to a single platform that performed all three functions collectively. These capabilities were available out of the box from Entuity. With EYE's flexible, easy-to-use solution for network management, deployment did not require a huge commitment in terms of man hours from Perot Systems. Even better, there was little need for custom adaptations to EYE, even with the complex requirements of Perot Systems' network management environment.

"Within days, EYE was up and running and had placed all of Perot Systems' corporate network and those of its 60+ global customers under management," said Dineta Cooper, lead subject matter expert for Perot Systems network management. "We were pleased that implementing EYE did not take an army of technologists to roll-out. In fact, the deployment was accomplished with just two people, freeing our other associates to focus on serving clients."

Perot Systems was instantly able to monitor the nearly 4800 network devices that comprised its network—ranging from routers and switches, to MPLS networks, to firewalls, without a single lapse in network performance. But the true hallmark of technology achievement was the shift in the way network problems were handled.

"EYE actually created additional work for our staff initially," said Kristin Morris, manager network management applications for Perot Systems. "Why is that good you may ask? Well, EYE proactively highlighted areas of focus to address before they became service impacting issues. This allowed us to ultimately provide better services to our customers. We were confident that EYE would continue to proactively identify even more opportunities for improvements over time."

Capacity to Scale

As an MSP, Perot Systems' network management solution is the backbone of its global customers, as well as its own corporate network. The challenge Perot Systems faced was one of scalability to provision new services for existing and future customers across its massive network without increasing operational expenses.

The three solutions Perot Systems formerly utilized redundantly polled the network for data. By implementing EYE, the redundant polling for similar data was eliminated, reducing the management overhead. This in turn reduced the amount of traffic traversing the network. In addition, potential hardware inefficiencies were reduced by limiting the number of times a piece of hardware was polled for similar data.

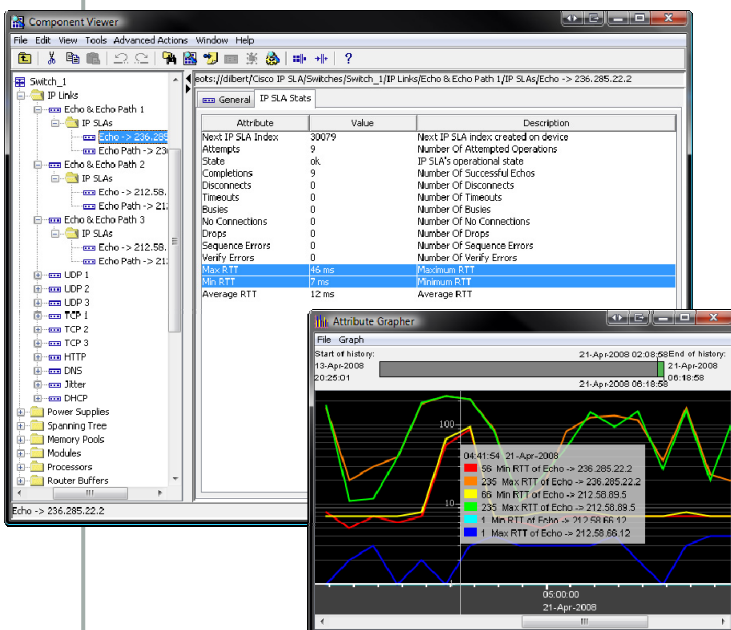
EYE offers network technologists at Perot Systems another level of visibility to its infrastructure, actively monitoring, reporting, and alerting on the routing protocols connecting its complex and distributed network. EYE discovers and collects data, presents reports, and visualizes active routers for each protocol. Proactive management of these devices is enabled through active notification on routing peer-related events. The centralized information captured within EYE, along with the graphical visuals in the Connectivity Viewer, help network administrators, architects, and managers understand the topology of routing protocols that improve service delivery, reduce performance degradations and outages, and eliminate manual trouble shooting processes. Perot Systems utilizes the BGP routing alerts to identify and isolate MPLS anomalies that previously required manual effort to analyze. Network engineers are alerted to all events, even those that are not service impacting or apparent to the user community. This data can be used to identify and document trends to review with carriers to help improve service delivery.

Perot Systems also utilizes EYE's IP SLA module to create synthetic transactions to measure network response time and performance. EYE analyzes and presents data as meaningful information such as measurement of jitter, for streaming audio/video/VoIP, measurement of end-to-end metrics including client-server latency and availability, or identification of slow/unreliable 'hops' along a path. These measurements help technicians establish a baseline understanding of network performance and can be correlated to symptomatic events such as slow application response. EYE proactively alerts on behavioral trends so they can be resolved before service is impacted.

Perot Systems' customer service expectations and requirements are unique. In provisioning new customers, not only does Perot Systems need to establish appropriate SLAs, but they need a reliable way to measure and report compliance. EYE's built in reporting and data export functionality gives Perot Systems the capability to document operational level and prove service delivery. Account teams use EYE's capacity planning Heat Map reports to identify when customer are trending towards capacity problems and propose additional capacity. Network teams use router summary reports to establish trending and identify devices with resource trends highlighting devices that are over or under utilized. This gives them the requisite documentation from a technological perspective to recommend upgrades and accurately and efficiently size new hardware.

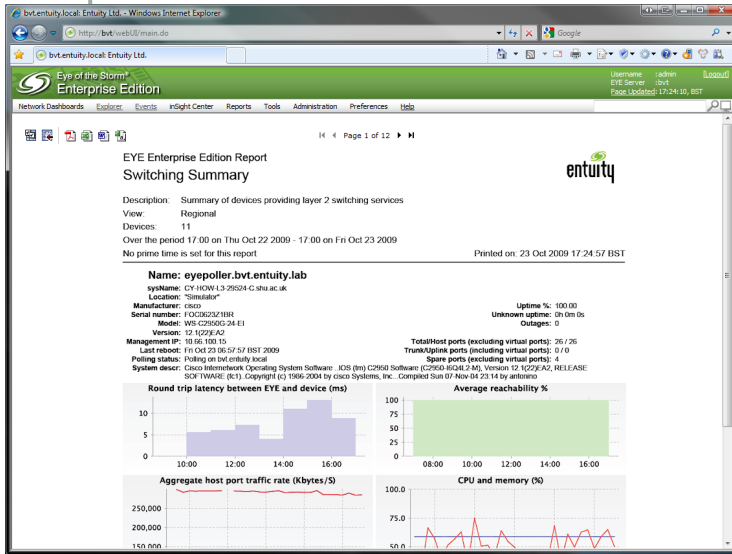
"EYE handles reporting in an innovative way, allowing us to provide exceptional client service" shared Morris. "The software includes a powerful reporting solution which enables us to interact with the data management core via a Web interface and create new reports on the fly. This reporting functionality combines full access to stored data with an extensive variety of presentation styles. We can schedule these reports to be created and automatically delivered or have them or generated on demand."

With recent speed and reliability increases in its wireless mobility solutions, Perot Systems has experienced a heightened demand for wireless service. Wireless connectivity has quickly become commonplace and a standard feature on many of Perot Systems' client networks, including its own. The flexibility and mobility provided by wireless networking offers great benefits for users and complements existing network infrastructures – but shouldn't add to the burden of those tasked with its



The EYE IP SLA Module gives clear insight to network performance and availability.

management or require separate processes to maintain.



Powerful reports help quickly resolve incidents and clearly document network information and statistics.

Using the EYE Wireless Module, Perot Systems is able to unify visibility and management of wireless and wired networks to reduce operational expense and ensure availability of critical wireless access points and controllers for its customers. EYE's Wireless Module helps Perot Systems technologists from the initial infrastructure assessment to the ongoing management of its wireless devices, which, at any one location, there can be thousands of devices. EYE automatically discovers and monitors all wireless access points and controllers in use at the customer facility. By automating the process, the completed survey is done in hours versus the days it would have previously required. Without manual intervention, the accuracy of results is improved to facilitate informed technology architecture planning and budget-friendly hardware procurement advice. Within seconds, EYE can produce reports on the details and distribution of wireless devices in a customer environment.

The Payback

Using EYE as part of Perot Systems' Advanced Network Monitoring service has delivered business benefits from both an operational cost and a revenue potential perspective. The most immediate impact to Perot Systems' bottom line was the reduction in operational costs by consolidating three separate applications to one. This not only reduced software and maintenance costs, but also the training costs associated with keeping personnel proficient. The streamlined

system also increases the number of devices that network operations personnel can each effectively manage, reducing the overall salary expense as fewer support staff are now required when new customers are added.

Eliminating the redundant polling created by three separate systems not only reduces the management traffic overhead required to ensure proper operation, but also increases the available capacity to customers. The perceived performance increases have a positive impact on customer satisfaction. This spare capacity also allows Perot Systems to add more customers without a corresponding increase in hardware infrastructure, thereby minimizing capital expense while maximizing revenue potential.

Winning – And Keeping – Customers

In the managed services business, price and expertise land the customer, but continued delivery on agreed service levels keeps the customer and ensures satisfaction. The flexible reporting available in Eye of the Storm enables Perot Systems to provide detailed and customizable reports on each customer's unique key performance requirements. It helps prove to customers the value they are receiving each and every day.

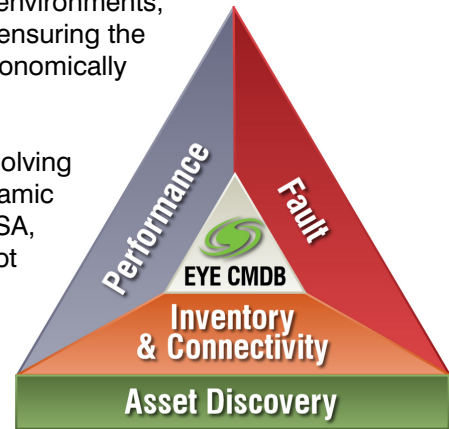
Capacity to serve the current and future requirements of a growing customer base brings added value. As more enterprises are choosing the cost-effective flexibility of managed services, more are turning to Perot Systems for its demonstrated expertise in providing technology and business solutions. The advanced capabilities in EYE help Perot Systems ensure that customer networks are optimally deployed and efficiently performing. The extensive infrastructure data and forensics delivered by EYE help account teams proactively avoid service interruptions and identify opportunities to propose – and justifiably prove – additional capacity or hardware upgrades that will positively impact the customer's service levels.

Customers come to Perot Systems for its demonstrated experience and expertise at delivering technology and business solutions. Entuity's Eye of the Storm helps Perot Systems manage networks efficiently and effectively in delivering services – and keeping commitments – to its end customers.

Eye of the Storm Summary

Entuity® offers a complete line of contemporary network management solutions for reducing operational costs while improving services delivery – affordable enterprise class management. Eye of the Storm® (EYE) network management solutions enable IT organizations to quickly and materially reduce costs, and to deliver - and prove - the service levels expected by its customers. EYE gives you insight, control, and predictability of your network's performance and availability - from the core to the edge - with a range of products at price points to match your business model. The EYE product line helps businesses realize the maximum benefit of today's distributed applications, virtualized environments, network-based services, and contemporary data sharing strategies by ensuring the foundational resource for all these initiatives – the network – is economically deployed and optimally performing.

Entuity's customers include Global 2000 companies proactively solving mission-critical business initiatives, leveraging complex and dynamic distributed network environments. A sampling includes: ABB, ACSA, Amtrak, Astra Zeneca, BMC Software, IBM Global Services, Perot Systems, The Royal Bank of Scotland, SASSA, Sony, Visteon, and WorldPay.



Eye of the Storm Enterprise Network Suite

EYE Enterprise Network Suite is the company's flagship scalable, multi-server solution for medium to large enterprises managing the largest and most dynamic networks for some of the most demanding organizations in the world. EYE Enterprise delivers network control and predictability enabling enterprises, system integrators and MSPs to manage network services and assets, meet service level commitments, implement best practices in service delivery, and even develop and monitor Green IT initiatives.

EYE automatically and continually discovers and captures in-depth network data and analytics, and provides integrated fault, device- and flow-based performance management capabilities that help enterprises, service providers, and system integrators reduce network downtime, commit to, deliver, assure and prove service levels, and ensure network configuration compliance. Real-time notifications of physical network and configuration changes, visibility to virtual servers and environments, and open data accessibility prevent user-impacting business service interruptions and enable transparent business-level reporting through high level and detailed reports, corporate dashboards, or mash-ups.

EYE NPE Integrated SME Network Suite

The Entuity Eye of the Storm Network Professional Edition (EYE NPE) is a new class of network management solution focused on the needs of small to medium enterprises (SMEs). It allows SMEs to manage their networks using enterprise-class technology at an affordable price. EYE NPE provides SMEs with a live, accurate view of their network in order to reduce network downtime and ensure optimal network operation so critical business initiatives can be effectively deployed and efficiently maintained.

EYE NPE provides a succinct suite of the most important functionality for network management, presented in an easy to use, quickly to deploy format. EYE NPE delivers extremely fast time to value and low total cost of ownership, resulting in superior overall price-performance. Its wide range of capabilities are the practical middle ground between single function point utilities and tools that are difficult and costly to integrate, and heavily laden frameworks that are difficult to deploy, learn, use, and expensive to support. EYE NPE enables SMEs to quickly and optimally manage their networks.

To learn more about EYE NPE for SMEs or Eye of the Storm Enterprise for medium and large enterprises, please contact your local Entuity office, visit www.entuity.com, or email info@entuity.com.



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