

Technology Audit

Infrastructure Management

Entuity Inc.™
Eye Of The Storm® (EYE) v5.0

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Abstract

Entuity's Eye Of The Storm is an integrated-network management solution that combines performance, fault, and inventory management. It aligns business applications with IT infrastructure together with historical context to provide real-time service information. Because of the increasing demands on enterprises to respond to increased regulation and growing competition, there is a much bigger expectation from their IT departments. There is also the growing complexity in infrastructure components and the relationships between them due to new advanced technologies and applications. Eye Of The Storm is easy-to-install and run, and has auto discovery functionality. It is aimed at medium-to-large enterprises and systems integrators across all industries and can be used as a standalone solution, and also to complement other solutions in the IT service management space.

KEY FINDINGS

Key: ✓ Product Strength ✗ Product Weakness *i* Point of Information

✓	Integrated suite of key network management functions.	✓	Single interface providing ease-of-use.
✓	Provides information on devices/technologies at the edge of the network, such as MPLS, VPNs, and firewalls.	✓	Provides information for knowledgeable strategic decision-making.
<i>i</i>	Eye Of The Storm supports ITIL best practices for Service Support and Service Delivery.		

LOOK AHEAD

With the focus on the better management of the IT environment set to continue, Entuity's solution encompassing fault, performance, inventory, and IP services management is well positioned to progress in this expanding market. Its proactive visibility and modelling capabilities will appeal to organisations considering new applications such as VoIP.

► FUNCTIONALITY

As enterprises and systems integrators become ever more reliant on the Internet as an essential business tool and a sales channel, the importance, and therefore the reliability, of network services has become paramount, and is also assumed to be always on and available when needed. When these demands are combined with the emergence of the collaboration and partnership culture in management thinking, the security of the network takes on a new significance.

Therefore, to protect the network an organisation must understand what the current network vulnerabilities are, and ensure management processes are implemented to monitor and secure sensitive corporate information. While creating this information highway between organisations has undoubtedly generated savings, it has also created an extended organisation that must be kept informed and updated. The role of the network as the backbone of this interconnectivity has elevated its importance, and any failures become high profile very quickly.

Datamonitor research quotes that networks are beginning to feel the strain as the push for convergence of voice and data services is adding new layers of complexity. Managed Network Services (MNSs) is a service that is beginning to look appealing to CIOs, but before considering such a move, CIOs must understand their existing network infrastructure better; any move to MNS will then be conducted from a stronger position. Butler Group advocates that any organisation considering outsourcing as a solution recognises that outsourcing does not mean devolving ownership; as the risk and responsibility remains with the CIO. Therefore, organisations must understand what they have and how it is performing before they consider MNS.

Product Analysis

The major problem facing organisations is that network infrastructures have grown to become large and complex environments and many CIOs and IT manager's perspective of these networks is that of a 'black hole' – in other words, they do not have a complete digestible picture. For example, the increasingly demanding requirements for compliance, such as Sarbanes-Oxley (SOX), are forcing IT managers to maintain clear and auditable records of authorised access to corporate systems, and unless managers understand the entire infrastructure, this requirement cannot be satisfied.

Another issue causing IT managers concern is the lack of understanding of the effect of all the patch releases being installed on the multitude of equipment connected to the network. Installing and updating server operating system patches requires IT managers to know the current patch level of the equipment, and determine if the new patch can be applied directly, or if the patch is a cumulative patch release requiring any pre-requisite level. For small networks this may be possible using paper-based record logs, however, for large, complex installations, IT managers must have a tool that can automatically capture this information; particularly as the edges of the network are becoming blurred as technologies such as wireless extend its reach.

For many organisations the network infrastructure represents a significant capital investment; and increasingly CIOs are being asked to justify this expense. Before any analysis of usage of the network and identification of any bottlenecks and vulnerabilities can be achieved, a clear and complete picture of the entire network is needed. Networks are the fundamental framework that supports an organisation's operations; therefore management of this resource is critical to ensure the continuation of business operations.

Entuity's Eye Of The Storm (EYE) Version 5.0 combines these requirements in a powerful IT solution. Its integrated database aligns business applications with IT infrastructure and provides the historical context required to detect, isolate, and report performance and service degradations in real-time. The customer has flexibility through the reporting engine that supports both ad hoc queries and scheduled reports. IT professionals are able to monitor, report, and prove the service levels that they deliver, and are able to optimise infrastructure resources as systems evolve and are upgraded.

Entuity believes that Eye Of The Storm's inventory management and its agentless discovery capabilities enable it to delve deeper than other solutions. It maintains details of devices, and also 'circuit-level' knowledge of the network such as peer-to-peer and parent-child relationships between the elements. Eye Of The Storm carries out an automated and continual process of network device discovery, thereby ensuring that its network configuration knowledge is always accurate, and not just to the last time that the software was installed and the network discovered. Figure 1 shows the Entuity architecture; the company says that its solution differs from its major competitors because it is a single, integrated system that retains fault and performance information so that it is able to provide a historical context to network troubleshooting, and enables trend analysis, forecasting, and planning of network resources. Entuity v5.0 extends its reach to the 'edges of the network' allowing organisations to have a greater visibility of the impact of any change.

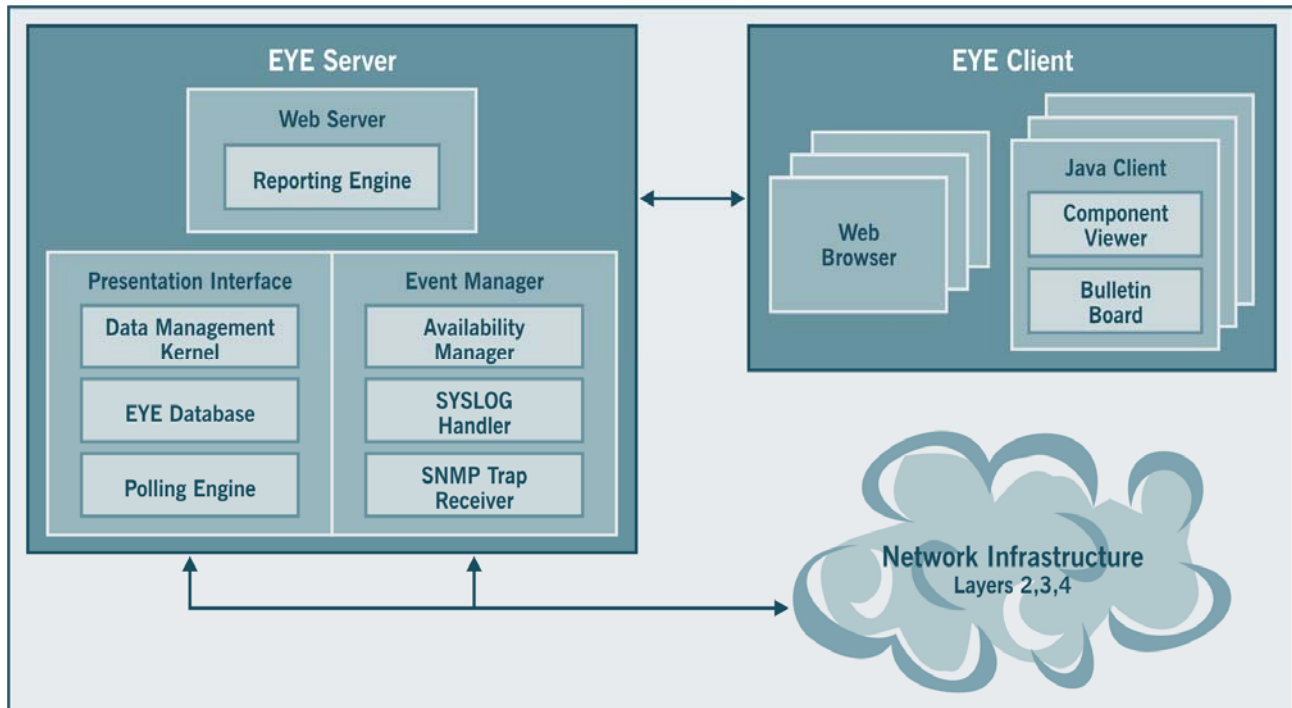


Figure 1: The Architecture of Entuity's Eye Of The Storm

Product Operation

Eye Of The Storm is implemented as a typical Web client and application server architecture. The user interface is primarily through the Bulletin Board that reports filtered and prioritised events as they occur, and the Component Viewer that allows administrators to isolate specific network devices, classes, and groups of devices. The Connectivity Viewer provides an on-demand display of 'as-built' device connectivity, topology, and status. All historical data is stored in an internal database, accessible through an advanced reporting engine: Flex Reports. Data can be delivered in a variety of formats including XML. Eye Of The Storm is agentless and performs continual network discovery through Simple Network Management Protocol (SNMP).

Entuity's solution occupies the middle ground between point solutions with a single function that can be difficult to integrate, and major framework solutions with a range of functions that can prove hard to deploy, learn, use, and support. It provides a view of the key functions of network management through a single screen. The system optimises the capacity and performance of network resources by the proactive assessment of behaviour patterns and interpretation of the gap between expected and actual behaviour. It consolidates multi-layered data and differentiates normal network usage from the true cause of an existing problem or an evolving trend that could become a problem.

Eye Of The Storm delivers robust and complete reporting via its Essential Reports, Flex Reports, and Network Summary Report. IT organisations are able to actively manage business assurance and effectively communicate their role in meeting business imperatives. They are also able to model the introduction of new network components. Summary and detail information is available for executives, managers, and technicians. Figure 2 shows the QoS capabilities of Eye Of The Storm.

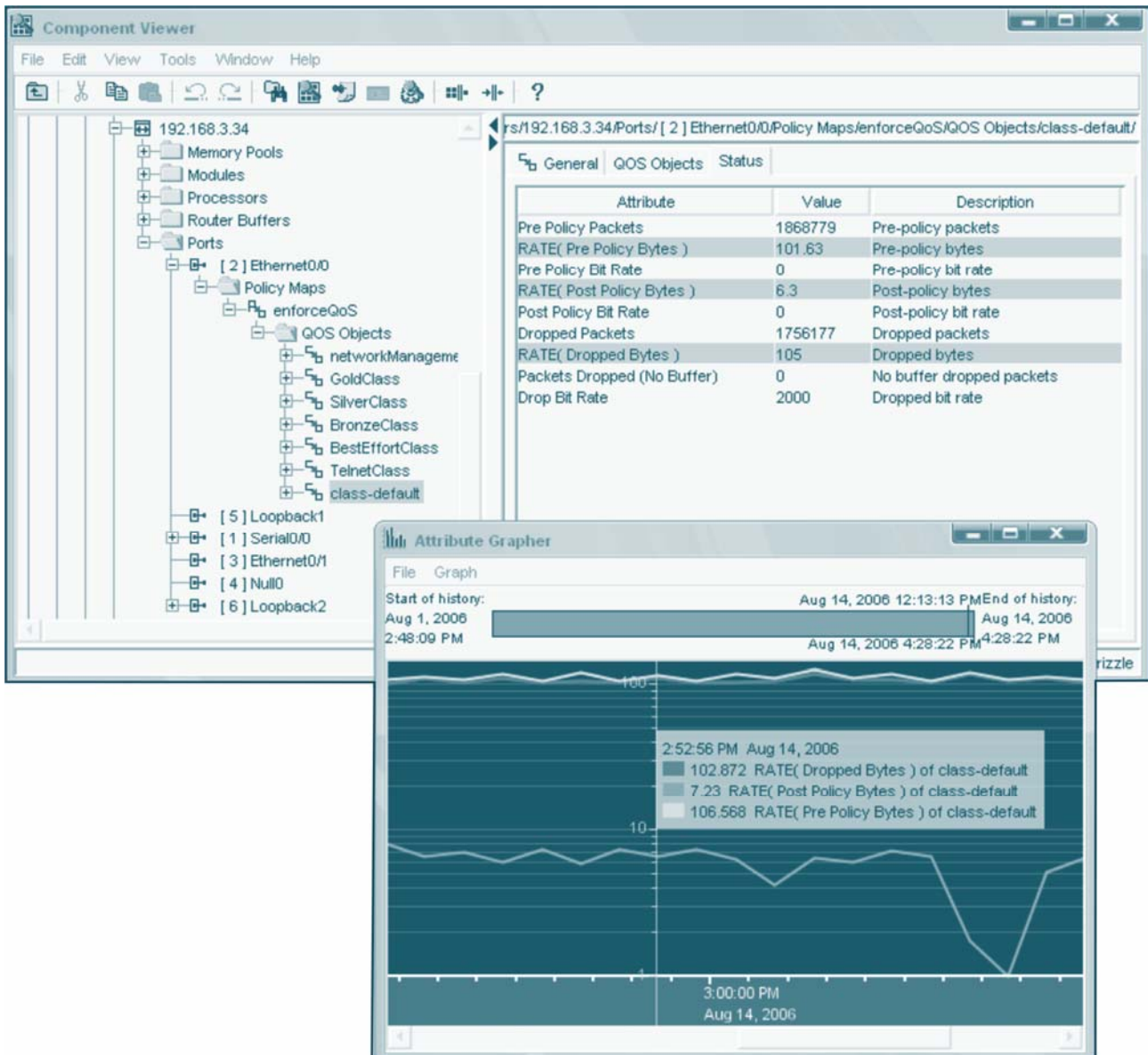


Figure 2: Typical Quality of Service Screens in Eye Of The Storm (Source: Entuity)

An Eye of the Storm server and its associated internal database is capable of scaling to more than 100,000 objects (such as ports), and there are numerous Entuity installations of this size. Multiple Eye Of The Storm servers can be installed in an enterprise, so network size is virtually limitless. One of Entuity's large manufacturing customer's prefers to federate its network management, and uses multiple servers to do so. Multiple servers can be simultaneously searched for device, port, and connected host information. The solution's client interface is a Web browser, so there is no limit on the number of users.

Multiple servers can be installed on a single network. Eye Of The Storm includes a fault management system, and is able to monitor itself, and can report to users when one of the servers running the solution has failed. It is also possible to configure a warm standby cluster arrangement, and the internal database server can be backed up using any standard backup utility.

Entuity Eye Of The Storm has been extended to support MultiProtocol Label Switching (MPLS) IP Virtual Private Networks (VPN), and Quality of Service (QoS), this allows organisations to monitor and manage the network beyond its core. Butler Group considers this extension of Eye Of The Storm as a significant differentiator, and especially so when combined with enhancements in the Connectivity Viewer (CV). These extensions enable organisations to identify not only the devices but also the hops and any change in configuration in the entire network, for example, if a user unplugs a laptop and inserts a wireless access point Eye Of The Storm will generate an alert.

Product Emphasis

As its name implies, Entuity's Eye Of The Storm solution is designed to be at the centre of IT service management. It enables customers to know what components they have in their infrastructure, and how to optimise those resources for sustained levels of service. It provides the information needed to take control and initiate actions to prevent failures that impact upon IT services. Eye Of The Storm provides real-time and historical analytics to support strategic planning initiatives, and extends the reach to the 'edge of the network' where new technologies are being deployed.

► DEPLOYMENT

Entuity says that unlike major products that compete in the network management software space, Eye Of The Storm is easy to install, has auto discovery functionality, and is easy to learn and use by administration staff and management. The product can be installed in hours with the complete discovery of small networks in hours, medium-sized networks in a day, and large enterprise networks in days. It says that administrator training can be completed in a day, and end-user training for report generation is done in hours.

One of Entuity's recent customers is California State University, Long Beach that claims to have achieved:

- A 70% reduction in troubleshooting time compared to previously used solutions.
- Administrator proficiency in only two weeks.
- Training of new users in hours, compared to weeks with previously installed point solutions.
- Deployment in two weeks, rather than months with other solutions.
- Maintenance of the software product has been drastically reduced compared to previous solutions.
- Greater network awareness and knowledge, through the automatic generation of almost a dozen reports (which were previously impossible to generate) providing information such as port usage.
- Informed and improved capacity planning for hardware purchases or redeployments, based on actual usage and performance.

Eye Of The Storm has a traditional Web client and server-based approach. Customers can install it on a single server and segment a portion of the network to be managed. They can add further servers or sub-networks over time. Some optional portions of the product are modularised, and Eye Of The Storm is typically run by administrators in a Network Operations Centre.

Entuity carries out one day of on-site training, and its User and Administration guides also contain basic information for getting started. Ongoing technical support is provided by e-mail and telephone from both the US and the UK.

Entuity Eye Of The Storm is available on the following platforms:

- **Servers:** Microsoft Windows 2003 server, Windows XP, Windows 2000, Linux (Red Hat), and Solaris.
- **Clients:** Web browser (e.g., Internet Explorer).

Eye Of The Storm is completely self-contained, but requires a Web browser, Adobe Acrobat, and an Adobe SVG plug-in, which are downloadable free over the Internet. Eye Of The Storm can be integrated within a "manager of managers" so that it can be invoked, can serve up all database information via XML, or can forward network events. Eye Of The Storm can also receive events from other management solutions.

Customers purchase a server licence, and also a licence for a certain number of ports or devices. Optional components to the product include a Cisco SAA module, a Cisco CallManager integration module, and an IBM BladeCenter module.

► PRODUCT STRATEGY

Entuity says that Eye Of The Storm is aimed at organisations in all industries that have networks of a particular size, where it is impossible for one administrator to 'visualise' them and therefore successfully manage and troubleshoot them. The company envisages that organisations with networks of 3,000 people or 3,000 ports, and 50 devices and above, will fall into this category. The product has been widely adopted in the financial services community, where network management has always been a key technology. Entuity sells to a broad range of organisations including small, medium, and large enterprises and systems integrators, which are typically Global 2000 or Fortune 1000 companies. Entuity says that the product has also been adopted by large manufacturers, universities, healthcare services, and government and defence agencies.

The company says that independent assessments have been made that have identified an ROI for the solution of between 128% and 397% in the first year, with a payback period of 14 to 41 weeks, depending on the scope of the deployment. Benefits have included a 40% reduction in capital investment, and a 50% reduction in personnel costs for fault discovery and reparation.

Entuity sees a major opportunity due to the increasing deployment of more complex applications that may impact current network performance. It believes this will drive the needs of organisations to have the latest and best network management software. For example, companies that deploy VoIP solutions will need to ensure that the VoIP service provided is adequate while not impacting the other applications previously supported by the same network. This is a bandwidth monitoring and fault resolution need.

Companies deploying Web Services-based applications will have the same issue of adding additional network traffic to an existing network that may or may not be able or prepared to handle additional volumes. Entuity sees that as companies emerge from the recent recession and begin to upgrade their older network and systems components, they will need tools to help prioritise, justify, and manage the upgrades, which will drive a resurgence for management solutions.

Entuity sells primarily through its direct sales organisation, with sales and pre-sales staff located in both the UK and US. It also operates a reseller and service provider channel covering the US, UK, Europe, and South Africa that includes partners:

- IBM Global Services.
- Vanguard Managed Solutions.
- British Telecom.
- Enterprise Network Solutions.
- Micro System Enterprises, Inc.
- Dormie Technology.

The company also has key technology partnerships with Cisco, for SAA and CallManager integration, and IBM, for TEC (Tivoli Enterprise Console) integration, BMC, HP, and SUN. It plans to pursue the extension of its partnership programme with organisations such as application management vendors, systems management vendors, VoIP management vendors, configuration management vendors, and large framework vendors such as IBM Tivoli.

Entuity believes that it faces competition on fault management functionality from Aprisma, which was acquired by Concord at the end of 2004, which was itself then acquired by Computer Associates (CA), Micromuse, which was acquired by IBM in 2006, and SMARTS, which was acquired by EMC. In the performance management market space, it regards Concord, now acquired by CA, as its major competitor.

Pricing is based on servers and the number of devices under management. Project values range from US\$50,000 upwards, and the average sales price is currently US\$200,000. Costs are normally made up of licences and maintenance at 20% of the annual licence cost, which includes telephone and e-mail customer support, maintenance, and product updates. Subscription-based pricing is also available.

Major releases of Eye Of The Storm are made on a yearly basis, with semi-major releases or components released in the intervening period. The latest version, Eye Of The Storm 5.0 enhances the architecture for "pluggable modules" that allow additional functionality for new devices, and new device or application types to be added to the management framework without re-releasing the base Eye Of The Storm product.

Entuity plans further integration with other management solutions in the market to provide more complete vertical or horizontal management solutions. Possible integrations include, for example:

- 1) Partnering with other functional solutions to incorporate fault, performance, inventory, security, configuration, and billing (“horizontal integration”).
- 2) Partnering with other layered solutions to achieve end-to-end management including network, systems, database, and application management (“vertical integration”).

It also plans to continue to develop additional modules that will allow Eye Of The Storm to manage more device types and applications.

The company believes that low end, less functional solutions may gain traction, although it believes that these are unlikely to be adopted by enterprises. In the longer term, it believes that there could be end-user demand for more complete end-to-end framework solutions from a single vendor.

► COMPANY PROFILE

Entuity has headquarters in both London and New York. The company was originally founded in London in 1997, where the majority of R&D continues to be carried out. Entuity’s executive management is based in Boston and New York. It remains a private and venture-funded company, and it has raised over US\$25 million to date in three rounds of equity financing from venture capital firms and corporations, including Leo Capital plc, Saffron Hill Ventures, Amadeus Capital Partners, Gartmore Group, Spectrum Equity Investors, and Mitsubishi Corporation. Leo Capital plc is a multi-million dollar diversified investment company and is the majority shareholder with approximately 75% ownership. Entuity says that this strong financial foundation gives it the strength to expand its global sales, marketing, and distribution efforts, and to accelerate R&D for its Eye Of The Storm solution.

The company employs 35 people in the UK, and 15 in the US, which includes 28 in R&D and 15 in Sales, Marketing, and Support. It expects to expand by up to 10% in the coming year, and its forecast growth in revenues for 2006 is 70%. Revenues are split between 50% in the US and 50% in the UK and Europe.

Entuity says that it has about 100 customers for Eye Of The Storm where the solution is used by hundreds of IT administrative staff in organisations to support up to tens of thousands of business users. These customers include:

- ABB.
- ABN AMRO.
- Cooperative Financial Services.
- Deutsche Bank.
- Morgan Stanley.
- SAP.
- IBM Global Services.
- TIAA-CREF.
- University of Minnesota.
- Verizon.

► SUMMARY

Entuity’s Eye Of The Storm solution provides the proactive and intelligent facilities that organisations increasingly need to effectively manage their IT environments. As more advanced technologies and applications are required to be introduced, enterprises need management tools that enable them to controllably manage change in their environments, with the knowledge and information that minimises the risk of disturbing the smooth running of the infrastructure. Entuity’s Eye Of The Storm extends its reach to the edge of the network where new technologies, services, and devices are being deployed.

It is easy-to-use and easy-to-deploy and therefore improves productivity and reduces the resources required to control and manage the IT environment. With its proactive visibility of resources linked to business applications, it enables Service Level Agreements to be monitored and managed. Entuity has had a recent injection of additional funding, which makes it well prepared to add to its already impressive list of customers.

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