Nominee: The Traffic Visibility Fabric by Gigamon

Nomination title: See what you're missing – Gigamon's tool enables organisations to gain intelligent network traffic visibility

Gigamon is a leading provider of intelligent Traffic Visibility Networking solutions for enterprises, data centres and service providers around the world. Its technology empowers infrastructure architects, managers and operators with unmatched visibility into the traffic traversing both physical and virtual networks without affecting the performance or stability of the production environment.

At the heart of Gigamon's service is its Visibility Fabric, which comprises the GigaVUE portfolio of high availability and high density fabric nodes and patented advanced-level intelligence. Sitting between the IT infrastructure and the tools that need access to the traffic traversing the network, the Visibility Fabric can aggregate, filter, replicate or modify traffic to centralised management, analysis and security tool. This innovative architecture extends the reach of the tools to significantly improve ROI and allows organisations to more efficiently manage and secure their networks.

Over the course of the last 12 months, Gigamon has enhanced its product offering extensively with updates including improved support for Cisco and VMWare virtualised environments and the introduction of Visibility Fabric Applications, designed to provide Traffic Intelligence. The new applications include NetFlow Generation, to create and send NetFlow records to one or multiple NetFlow collectors or analysers, as well as applications that offer advanced filtering capabilities, such as deep packet inspection. Through Traffic Intelligence, the Visibility Fabric will deliver more granular filtering and forwarding to ensure that the tools organisations rely upon for managing, analysing, and safeguarding the network and its users, receive only the most relevant traffic.

Gigamon's solution overcomes the common challenges of network growth, allowing IT organisations to more efficiently manage change, and provides a solution that can quickly adapt and scale as network needs evolve.

An innovative approach to traffic filtering

Gigamon's highly intelligent traffic filtering technology, Flow Mapping, allows network owners to create thousands of individual 'map-rules' to determine how traffic arriving on network ports should be sent to tool ports. This approach ensures each tool only sees the traffic that it needs to see, and nothing else. Such granular customisation can overcome tool port oversubscription when aggregating traffic from multiple network ports and allows

network tools to operate more efficiently, with less management – leading to both CAPEX and OPEX savings.

Furthermore, Gigamon offers organisations the ability to virtualise the Visibility Fabric and provide Visibility as a Service to departmental tenants. By creating flow maps and assigning map rules, users can include or exclude traffic based on IPv4/IPv6 addresses, application port numbers, MAC addresses and so on. This enables network service teams to deliver visibility across departmental silos or, in the case of service providers, multiple organisations. This ensures that each group is only seeing the information that is relevant to them and can change monitoring and traffic visibility policies on a per-tenant basis, without impacting other departmental policies.

While many companies claim to offer real-time traffic visibility to network monitoring and security tools, Gigamon's Intelligent Flow Mapping is the only traffic visibility networking architecture that gives complete control of all traffic at full line rate speeds – which is increasingly critical as network speed and complexity increases.

Network expansion challenges

As service providers begin to transition to 10 GbE core networks, they are facing a challenge to provide a cost-effective and comprehensive solution to monitor traffic at full line-rate. While 10 GbE monitoring tools are available they are hugely expensive and often incapable of handling full line-rate except in short bursts. The solution often used is to filter the traffic, but this means only monitoring 10 percent of a 10 GbE network, with a 1GbE tool.

By using multi-rule sequential pre-filters to load balance traffic across multiple 1GbE analysers, Gigamon allows the 1GbE tools to effectively monitor 10GbE traffic, with each tool analysing a specific and pre-defined function. Similarly for smaller organisations, 10/100 Ethernet tools can be used to effectively monitor 1GbE links. Gigamon's Traffic Visibility Switch is the most cost-effective way of monitoring at 10GbE rates, without oversubscribing any single 1GbE tool.

Organisations see what they would otherwise miss

Since its founding in 2004, Gigamon has served more than one thousand end-user customers - including more than half of the Fortune 100 companies and, in the fourth quarter of 2013 alone, added 86 new customers – including 19 Fortune 1000 companies.

The benefits of implementing Gigamon's Traffic Visibility fabric have been seen in multiple ways across a wide breadth of industries. From allowing mobile operators to maintain their quality of service amid big data concerns, to providing financial institutions with a cost-effective and reliable means to monitor and secure their networks. In short, gaining greater visibility into the network with Gigamon can increase performance and, in turn, profitability.

One company that has reaped the benefits of Gigamon's solution is Alpha Banking Group , one of Russia's top banks. With several data centres requiring monitoring tools throughout Russia, the bank's IT team decided it would be more cost-effective and efficient to capitalise on one solution, rather than depoloy duplicate tools at each. The organisation needed a traffic visibility solution that would allow it to share these tools effectively and extend the capabilities of each monitoring device.

With Gigamon's Visibility Fabric in place, Alfa Banking Group's IT team has significantly reduced the site-to-site traffic levels to their monitoring tools. It also allows for the creation of a redundant Monitoring Centre at an alternative location. This takes advantage of the organisation's current monitoring tools, centralising them, and extending their capabilities, which reduces costs and ensures Alfa Banking Group is capitalising on its investment. Furthermore, the network management team has been relieved of the burden of performing complex SPAN and mirroring port functions and all traffic visibility tasks are now performed on a dedicated Visibility Fabric in real time, rather than run during maintenance hours, overnight or during network downtime.

"We appreciate being able to decide which traffic to forward based on specified parameters," said Anton Nastasyuk, deputy head of IT division, Alfa Banking Group. "The Flow Mapping technology allows us to take full advantage of our monitoring tools and get the information we need to ensure our network is running smoothly and efficiently."

Why nominee should win

- Gigamon's innovative approach addresses the challenges of increased network traffic, providing unmatched visibility into traffic across both physical and virtual networks
- Intelligent Flow Mapping is the only traffic visibility architecture that can cope with increasing network speeds at high data volumes
- The Traffic Visibility Fabric provides a cost effective solution allowing organisations to do more with less
- Gigamon's Traffic Visibility Switch is the most cost-effective way of monitoring at 10GbE rates, without oversubscribing 1GbE tools
- With no network downtime or change orders required, the solution can quickly evolve and scale as network needs change