Use Case

Gigamon Protects Mobile Core by Implementing Distributed Traffic Intelligence

The Gigamon Visibility Fabric not only allows the ability to see exactly the traffic that mobile operators want to see on the tools, but it also increases the efficiency of the mobile core network and tool farm, allowing the mobile operator to direct their budget to strategic projects instead of overbuilding in either area. That’s a win for the mobile operator and their subscribers.

Customer
Mobile operators with large subscriber base and roaming agreements in multiple countries.

Challenge
Reserve mobile core for premium services and revenue-producing traffic.

Solution
Deploy cost-effective, intelligent Gigamon Visibility Fabric nodes at the edge to feed relevant information to the tools for prioritization and routing of mobile traffic.

Benefits
• Maximize the value of the mobile core by directing lower priority traffic to alternative or peered networks
• Maximize the productivity of tools by offloading processor-intensive tasks such as filtering to the Visibility Fabric
• Avoid congestion of tools by load balancing traffic among ports in a tool farm

Business Challenge
Mobile operators covering a large population with a network that supports millions of subscribers can be challenged with transporting a significant amount of non-revenue-generating traffic, such as over-the-top video, and not have it adversely affect the quality of experience for premium services or premium subscribers.

To prevent lower-priority traffic from congesting the core network, operators are looking at ways to prioritize traffic with the proper level of service relative to revenue as it entered the network. Placing voice, video, and customer experience management tools on the edge for tagging traffic and enforcing quality of service rules can be cost-prohibitive—too many ports on the edge to place such costly tools inline at every point. Operators need a way of getting the traffic to a centralized tool farm for processing and routing based on priority.

Resolution
A cost-effective solution for this challenge is a network Visibility Fabric™ built on Gigamon nodes. Supporting up to 48 x 10Gb TAP ports in 1RU, the Gigamon GigaVUE-TA1 is the perfect low-footprint, end-of-row device for tapping hundreds of edge links.

By using the GigaVUE-TA1 to push filtering out to the edge, mobile operators are able to aggregate traffic from links with varying levels of utilization, filter it based on type, and then forward it to the appropriate tool for analysis and prioritization.

Benefits
The primary benefit of installing a Gigamon Visibility Fabric is that it allows the mobile operator to route low-priority traffic to their network of peering partners, and reserve the mobile core for premium service and revenue-generating traffic. By protecting the mobile core, they are able to extend the life of their current build out, pushing the need for expansion into the future.
But there are other advantages as well. Not only can the provider extend the life of the core network, they can do the same for costly tools, such as video quality-of-experience analyzers, voice quality assurance tools, and customer experience management tools, by offloading the processor-intensive task of packet filtering from the tools to the visibility nodes.

In addition, they can avoid congestion on any given tool in the tool farm by using the load-balancing capabilities of the Visibility Fabric to direct the filtered traffic to the tool with the most availability.

The Gigamon Visibility Fabric not only allows the ability to see exactly the traffic that operators wanted to see on the tools, but it can also increase the efficiency of the mobile core network and tool farm, allowing the mobile operator to direct their budget to strategic projects instead of overbuilding in either area. That’s a win for the mobile operator and their subscribers.

About Gigamon

Gigamon provides an intelligent Unified Visibility Fabric™ to enable the management of increasingly complex networks. Gigamon technology empowers infrastructure architects, managers and operators with pervasive visibility and control of traffic across both physical and virtual environments without affecting the performance or stability of the production network. Through patented technologies, centralized management and a portfolio of high availability and high-density fabric nodes, network traffic is intelligently delivered to management, monitoring and security systems. Gigamon solutions have been deployed globally across enterprise, data centers and service providers, including over half of the Fortune 100 and many government and federal agencies.

For more information about our Gigamon products visit: www.gigamon.com