



Solution Brief

Maximizing Network Visibility

From Web 2.0 companies to long-standing institutions, the network is the central IT asset that enables an organization to expand into new geographies, enter new markets, create new products/services and foster seamless communications across a global business. In order to maintain and extend their competitive edge, businesses continue to aggressively invest in productivity applications to enable transactions for internal employees, and establish collaboration solutions with outside partners or customers. The responsiveness and availability of critical business applications and essential IT services are therefore of paramount concern to IT organizations everywhere. As a means of achieving more with less, IT administrators are turning toward new and innovative technologies such as cloud computing, infrastructure consolidation, and virtualization. However, the true benefits of these technologies can only be achieved if a complete understanding of the network traffic, its performance, and dependencies are established and maintained. To this end, IT organizations are increasingly turning to best-in-class, end-to-end traffic visibility and performance analysis tools to monitor and manage the network, and to assist with isolating performance problems.

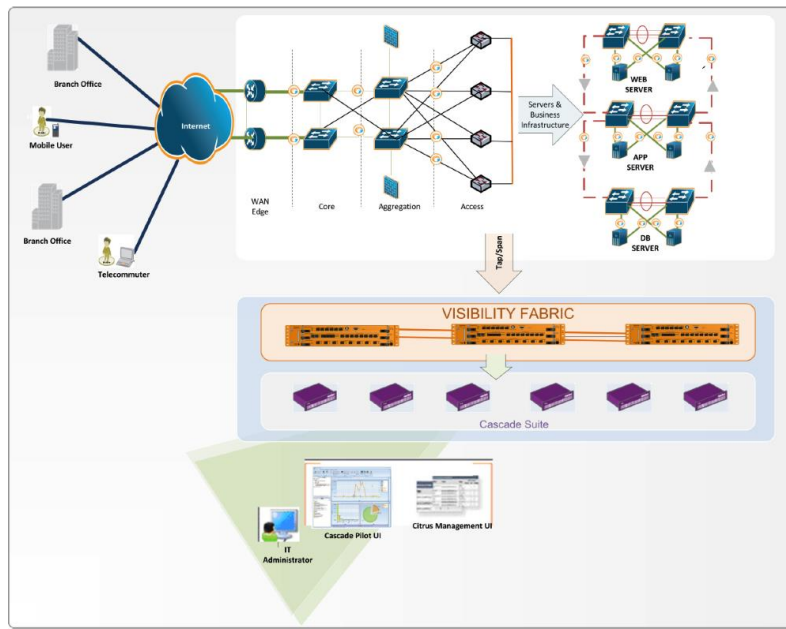
Solution Overview

The face of enterprise IT infrastructure is being radically transformed by a tidal wave of new applications and innovative technologies including data center consolidation, server virtualization, application development controllers (ADCs), and cloud services. More and more business-critical applications are moving from the physical confines of the corporate organization to the internet. The availability of, and access to these applications is required from anywhere and at any time. As these applications increase in importance to ongoing operations, their performance will dictate the success or failure of any new corporate initiative. While it is critical that the network be able to support predictable performance for all types of network traffic, network conditions are very much like the weather—they have patterns; but, without vital insights, they are very difficult to predict.

Visibility into the types of applications, the array of traffic and its associated performance, and the number of devices continue to list among the top concerns for enterprise IT. You cannot manage what you do not measure, and you cannot measure what you cannot see. When you know the behavior and operational profile of your servers and network under “normal” conditions, you will be more informed and more able to diagnose the issues and challenges that inevitably arise. Continuous monitoring, performance baselining/benchmarking, and long-term trend analysis are therefore crucial for efficiently managing network and application service delivery.

Riverbed® and Gigamon® have collaborated to develop a solution that provides cost-effective, application-aware network performance management enabling end-to-end visibility into the performance of critical business applications. By combining flow and packet data, the Riverbed® SteelCentral™ NPM solution, enabled by a Gigamon Visibility Fabric™, integrates end-to-end monitoring with deep packet capture and analysis for proactive alerting and robust network troubleshooting. Armed with this information, IT infrastructure teams can effectively support the application lifecycle, monitor and analyze operational network performance, and ensure that committed service levels are met in production networks.

One Gigabit or 10 Gigabit traffic streams are mirrored from the core switches and server infrastructure into the Gigamon Visibility Fabric where the streams are filtered and aggregated before being forwarded to the Riverbed SteelCentral NetShark™ appliances for packet capture, long-term storage, and deep packet analysis. Gigamon’s unique patented Flow Mapping® filters intelligently segregate the data into different logical groupings and removes unwanted information based upon Layer 2, 3, or 4 parameters applied to the incoming and outgoing traffic streams. As traffic enters the Gigamon Visibility Fabric nodes, the packets can be accurately time stamped with either microsecond or nanosecond accuracy clocks. Precision time stamping closer to the point of origin provides accurate time-of-transmission of the packet, thereby eliminating latencies and distortions introduced due to buffering on intermediate hardware.



This information can then be visualized by Riverbed SteelCentral Packet Analyzer™ packet analysis software for detailed latency analysis of the correlated traffic on a segment-by-segment basis utilizing the built-in multi-segment analysis feature. NetShark's advanced network analysis and reporting engine takes advantage of the GPS time-synchronized capabilities of the Visibility Fabric to correlate data with precise time delay information—critical data needed to diagnose and troubleshoot complex performance issues in latency-sensitive environments.

The plug-and-play architecture of the integrated solution deploys easily in complex environments, providing network administrators with the vital insight they need to proactively and effectively govern IT infrastructures and ensure continuous availability of servers and applications.

About Gigamon

Gigamon provides an intelligent Visibility Fabric™ architecture 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.

About Riverbed

Riverbed Technology, Inc. at more than \$1 billion in annual revenue is the leader in Application Performance Infrastructure, delivering the most complete platform for Location-Independent Computing. Location-Independent Computing turns location and distance into a competitive advantage by allowing IT to have the flexibility to host applications and data in the most optimal locations while ensuring applications perform as expected, data is always available when needed, and performance issues are detected and fixed before end users notice. Riverbed's 25,000+ customers include 97% of both the Fortune 100 and the Forbes Global 100. Learn more at www.riverbed.com.



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