



July 20, 2007

Silver Peak Systems Provides The Most Scalable WAN Optimization Appliance

The Forrester Wave™ Vendor Summary, Q3 2007

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EXECUTIVE SUMMARY

Silver Peak Systems provided the most technologically superior solution. It scored the highest on current offering, and its solution provides a full suite of optimization techniques as well as a performance-oriented solution. Silver Peak specializes in scalability, with individual devices supporting the best single-box throughput, session processing, and overall storage capacity. Moreover, Silver Peak has paid special attention to encryption for both data transmitted among sites as well as data at rest on each device. Silver Peak's biggest drawback is its size. It's the smallest company in the evaluation and one of the only standalone vendors. However, we found Silver Peak's product and partnership strategy to focus on optimizing intra-data center links to be the right choice. This will position it well to leverage its storage and data heritage where it can focus on replication, disaster recovery, and business continuity implementations. We recommend Silver Peak if you require high-end performance and can't wait for other companies to successfully scale solutions to 500 Mbps of optimized WAN traffic.

SILVER PEAK SYSTEMS IS BEST SUITED FOR COMPANIES OPTIMIZING DATA CENTERS LINKS

Silver Peak, a privately held startup founded in 2004, is the youngest and smallest vendor in this evaluation. Like many of the newer generations of WAN optimization appliances, Silver Peak was designed from the beginning to offer a full suite of integrated optimization techniques. Despite its relative size, Silver Peak has an impressive list of customers and is gaining traction in WAN optimization deals where WAN links are OC-3 speeds or higher

Forrester evaluated Silver Peak's current offering and strategy for WAN optimization against approximately 65 criteria (see Figure 1). Overall, the product had the strongest current offering, but it lacks the sophisticated strategy and market presence to appeal to mainstream enterprises. This means that the product is an especially good fit for buyers that:

- **Require high-end deployments to connect data centers.** The majority of WAN optimization is focused on accelerating traffic from the data center to the branch office. Silver Peak, though, has refreshingly set its aims on higher-speed links used to interconnect data centers. Its massive scalability and storage capacity make it the clear choice for replication-intensive applications. Specifically, Silver Peak scored top marks for both session scalability (the number of application flows it can process) as well as device throughput (the amount of overall traffic it can process with all optimization techniques enabled). We recommend Silver Peak if you're looking to establish synchronous replication among data centers using IP-based technologies, or for connecting any locations that run at OC-3 speeds or greater.

- **Need full encryption of optimized traffic.** Silver Peak supports full encryption of data transmitted and at rest. Silver Peak uses AES 128-bit IPsec to ensure that both data and control plane traffic flowing among all sites is encrypted. Furthermore, it provides full-disk encryption to ensure that cached data cannot be deciphered if it's compromised or stolen from a remote premise. All encryption is hardware-accelerated. The only downside is Silver Peak's lack of SSL support for applications that are already encrypted, although it will ship this support by the end of 2007. Ultimately, Silver Peak is a good fit if you're security-conscious and worry about potential privacy issues because your WAN traffic is subject to regulatory pressures like HIPAA or SOX.

To see how Silver Peak stacks up against eight other competitors, see the Forrester Wave™ evaluation of the WAN optimization appliances market.¹

Figure 1 Silver Peak Systems NX Evaluation Overview

CURRENT OFFERING	
Product portfolio	Silver Peak Systems offers its NX series of WAN optimization appliances: the NX-2500, NX-3500, NX-5500, NX-7500, and NX-8500. Silver Peak also offers its Global Management System (GMS) to manage all appliances.
Architecture	Silver Peak offers one of the strongest appliance architectures. It's a mostly transparent architecture that operates at Layer 3 and uses several encapsulation techniques to create tunnels among boxes. It uses standard components and Linux, but supplements with specific coprocessors for added performance. It supports a wide range of deployment architectures and the strongest storage architecture with both memory and massive disk capacities. Silver Peak does not support a client for optimizing remote or mobile users.
Optimization techniques	Silver Peak offers very sophisticated byte-level caching, sophisticated traffic management and QoS, and standard compression techniques. It currently lacks a broad number of protocol-specific optimizations, but it does focus on TCP and CIFS.
Application-specific optimizations	Silver Peak works closely with packaged app vendors, but really goes above and beyond with its capability to support and integrate with data backup and replication vendors. Silver Peak also offers an XML-based SOAP interface for integrating with custom apps. Silver Peak does not currently offer native SSL decryption, but it can use IPsec among boxes.
Manageability and usability	Silver Peak offers a strong central management system with its GMS, which also helps with several ease-of-use features. Silver Peak currently only supports basic integration techniques for third-party management systems.
Scalability	Silver Peak does not offer strong clustering capabilities for scaling out, but in terms of scaling up, it is a very strong solution with a massive number of concurrent, optimized sessions and very high throughput capacities.
Reliability	Silver Peak supports the following reliability features: software watchdog, which monitors all processes and threads running in the system; hardware watchdog, which continues if the software watchdog fails; fail-to-wire; RAID protection of hard-disk drives with hot-swap capability; redundant power supplies; and active-active or active-standby configuration.
Monitoring and reporting	Silver Peak offers an average set of capabilities for reporting and monitoring with capabilities to generate detailed reports on application usage. It also supports above-average auditing and logging.

Source: Forrester Research, Inc.

Figure 1 Silver Peak Systems NX Evaluation Overview (Cont.)

STRATEGY

Product strategy	Silver Peak's product and portfolio strategy is to continue building out a best-of-breed solution. It is not looking to integrate WAN optimization with any other network infrastructure. Silver Peak has a strong application delivery vision, but its hardware and partnership strategy is focused more on data and storage applications. Its massive scale-up features position it for optimizing data center-to-data center WAN links.
Corporate strategy	Silver Peak is 100% focused on the WAN optimization space and is targeting midsize and large enterprises, especially with links in excess of 30 Mbps.
Financial resources to support strategy	Silver Peak is a small, privately held company with \$42 million in venture capital. Silver Peak has adequate means to execute against its strategy, but it is the smallest company in this evaluation.
Cost	Silver Peak's average list prices ranked toward the bottom of the list (seventh), but its overall solution cost was ranked third for our evaluated scenario. Silver Peak has a standard array of maintenance options and one of the simplest, clearest pricing structures.

MARKET PRESENCE

Installed base	Silver Peak is ranked eighth in terms of both overall WAN optimization customers and in the number of new customers added in the past 12 months. However, it has managed to get all customers to use maintenance.
Revenue	Silver Peak did not supply any revenue information, but we estimate it to be ranked sixth among the vendors evaluated. All of Silver Peak's revenue is in the WAN optimization space.
Revenue growth	Silver Peak did not supply any revenue growth information, but we estimate it to be ranked fifth among the vendors evaluated. All of Silver Peak's revenue is in the WAN optimization space.
Services	Silver Peak has presales support throughout EMEA and North America. During product evaluation, customers worldwide are also eligible to contact Silver Peak's call center 24x7 — with a 4-hour response time — or by email. Silver Peak has implemented a Consulting Engineer Team to assist customers with complex network configurations during the presales process. Silver Peak offers adequate training courses for channel partners. This includes presales training to train partners how to best qualify and target prospective customers, as well as installation and configuration training.
Employees	Silver Peak is the smallest of the companies we evaluated, and it's ranked ninth for number of employees.
Channel partners	Silver Peak does not currently OEM its technology and has a small but growing reseller community.

Source: Forrester Research, Inc.



Go online to download additional in-depth data and scores for this vendor and other vendors included in this Forrester Wave evaluation.



SUPPLEMENTAL MATERIAL

Online Resource

The underlying spreadsheet for Figure 1 is available online. The spreadsheet includes more detailed data and scores for this vendor.

This detailed data and scores for this vendor are also available online through an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and readers are encouraged to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve.

ENDNOTES

- ¹ Forrester evaluated leading WAN optimization appliance vendors across 65 criteria and found that Riverbed and Juniper have established early leadership. They have demonstrated early innovation in the most critical optimization techniques like caching, data de-duplication, and advanced compression. Silver

Peak leads WAN optimization appliance pure plays with the most scalable solution. Cisco and Blue Coat provide the full suite of capabilities but excel in offering technology that plugs into existing router and proxy products, respectively. Expand and Packeteer have well-established traffic management boxes with additional WAN optimization capabilities but need further integration to capture leadership positions. Citrix and F5 deliver good point products today but will offer much stronger devices when they integrate WAN optimization with their existing application delivery controllers. Ultimately, this is a tightly contested market, and we urge you to focus on optimization, scalability, security, and mobility criteria to determine the most appropriate solution. See the July 20, 2007, "[The Forrester Wave™: WAN Optimization Appliances, Q3 2007](#)" report.