



Silver Peak – The WAN Optimization Vendor of Choice for Offsite Data Replication

Why is Silver Peak the leader in data center WAN optimization?

Silver Peak has a variety of architectural advantages that maximize replication performance across the WAN while minimizing ongoing disaster recovery costs.

In addition, Silver Peak has long-standing partnerships with leading data center infrastructure companies, such as Dell, EMC, Hitachi Data Systems (HDS), NetApp and VMware, who are working with Silver Peak to deliver proven solutions for offsite backup and recovery. Many of these companies have chosen Silver Peak for their own internal WAN optimization needs, which is enormous testimony to Silver Peak's ability to optimize leading backup and replication solutions.

As the leader in data center WAN optimization, Silver Peak is chosen by leading IT organizations in support of a variety of strategic IT initiatives, including NAS replication, remote backup, SAN extension, data center consolidation, and data migration project.

Below are some of the reasons why leading companies have chosen Silver Peak for their data center WAN optimization needs.

WHY WAN OPTIMIZATION?

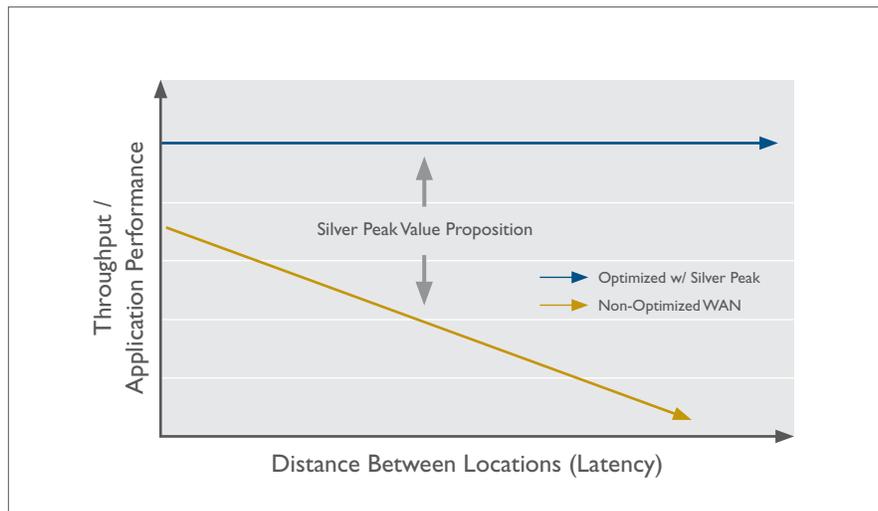
WAN optimization is an indispensable component of offsite disaster recovery projects. By combining Silver Peak's WAN optimization with leading data replication solutions, the following benefits can be achieved.

- **Spend Less:** Silver Peak enables enterprises to deploy all applications (storage and non-storage) over a single, cost effective shared WAN. In addition, Silver Peak minimizes ongoing WAN bandwidth expenditures using a combination of compression and WAN deduplication.

By eliminating dedicated WANs for disaster recovery and avoiding/delaying bandwidth upgrades, Silver Peak can reduce overall disaster recovery costs by over 50%.

Silver Peak is the WAN optimization vendor of choice for data center infrastructure companies

- **Go Farther:** Silver Peak uses various latency and loss mitigation techniques to enable consistent replication throughput, regardless of distance. This enables source/target locations to be strategically located where they make the most business sense.



- **Protect & Migrate More:** Silver Peak increases replication throughput without requiring additional WAN bandwidth. This enables more data to be sent across the WAN for optimal Recovery Point and Time Objectives (RPO/RTO).

WHY SILVER PEAK?

- Silver Peak is the **WAN optimization vendor of choice for data center infrastructure companies**. For example:
 - **EMC** – Silver Peak is a long-standing EMC Select partner, with customers including Amdocs, Bed Bath Beyond, Nvidia, NYK logistics, US Navy, etc. Silver Peak is qualified on SRDF, Celerra Replicator, SAN copy, RecoverPoint, and ATMOS. In 2009, Silver Peak was the “EMC Celerra Offering of the Year.” Perhaps most telling, when EMC had to choose a WAN optimization vendor for their internal IT needs, EMC chose Silver Peak.
 - **HDS** – Silver Peak is the only WAN optimization vendor chosen for resale by HDS. Customers include Blue Cross/Blue Shield, Expeditors, Verizon, ...



Silver Peak optimizes all IP applications, regardless of transport protocol or application version.

- **Dell** – Silver Peak is resold by Dell, with joint customers including Golf Savings, Global Ethanol, Pongo, Natural Factors, and MOHELA. Furthermore, when Dell had to choose a vendor for their internal WAN optimization needs who did they turn to? Silver Peak.
 - **NetApp** – Silver Peak and NetApp have been partners for many years, with dozens of joint customers including Toshiba, Finisar and others. Internally, NetApp chose Silver Peak for their most recent internal WAN optimization project.
 - **VMware** – Silver Peak is a VMware technology alliance partner, and is closely aligned with various VMware initiatives (including vMotion, replication, and VDI). Furthermore, VMware chose Silver Peak for their internal WAN optimization needs.
- Silver Peak has the **best product architecture for data replication.**
 - Silver Peak **optimizes all IP applications, regardless of transport protocol or application version.** This includes replication traffic that runs over TCP, UDP, and/or proprietary protocols. (This is contrast to other WAN optimization solutions, which only work on standard TCP applications and/or require application specific plugins that ignore a substantial portion of the replication market.)

Silver peak products have been qualified (in lab environments and live customer deployments) with the following leading replication solutions:

- Asynchronous replication solutions from:
 - **EMC** (SRDF/A, RecoverPoint, MirrorView, Celler Replicator, SAN Copy, Avamar and Data Domain)
 - **Hitachi** (TrueCopy, Universal Replicator, HNAS replication, HCP)
 - **Dell** (EqualLogic)
 - **NetApp** (SnapVault, SnapMirror)
 - **Symantec** (Veritas Volume Replicator)
 - **Double Take Software**
 - **Compellent**
 - **3Par**
 - etc.



- **VMware** replication environments
 - Remote backup solutions from **CommVault, EVault**, and others.
 - **Brocade** and **Cisco** FCIP solutions
- Silver peak provides the **highest capacity WAN optimization appliances**, including the industry's leading end-to-end throughput (LAN/WAN) and simultaneous flows. Other WAN optimization solutions require several appliances (and front end devices) to achieve what Silver Peak can do in a single device. This makes Silver Peak the most cost effective solution for large networks.
 - Silver Peak uses high-volume, **enterprise grade components** (micro-processors, SSDs, etc) that are proven to be reliable. Our patented architecture is designed to distribute packet processing functions in real-time to available processors, enabling performance to naturally scale as Intel/AMD processor capabilities scale. This enables Silver Peak to support up to 256,000 flows in a single appliance (regardless of the configuration) and Gbps on the WAN with no special hardware acceleration required.

Other WAN optimization vendor's data center boxes are heavily reliant on hardware as a compensation for software deficiencies. The only way they can scale is by adding dedicated cards for encryption and compression, which are often prone to failure and limit long term scalability as product development is constricted to the features of this specific hardware. Furthermore, as long as these vendors are reliant on hardware for performance, they can never deliver a virtual version of their data center devices.

*Silver peak provides
the highest capacity WAN
optimization appliances*

- Silver Peak provides a **consistent software code (with consistent features) for all enterprise scenarios**. The same throughput, flow count capacity, and features are available regardless of how a Silver Peak appliance is deployed. This avoids the complexity associated with deploying solutions from other vendors that have different capabilities depending on how they are deployed (e.g. "Data Center to Data Center" vs "Data Center to Remote Office"). In addition, this gives Silver Peak a unique advantage when it comes to supporting mixed-application environments, such as converged storage and non storage traffic.

“Very high performance systems with low insertion latency [and] differentiated optimization techniques for UDP and TCP”

Gartner

“Best Current Product Offering”



- Silver Peak provides unique **Network Integrity features that enable replication to take place on shared WANs**. This includes Forward Error Correction (FEC) and Packet Order Correction (POC) to correct for dropped and out of order packets in real-time, and advanced Quality of Service (QoS) and traffic shaping techniques. With Silver Peak’s Network Integrity features, replication can take place on lower quality WANs, such as MPLS and Internet VPNs. In addition, replication traffic can share the WAN with other storage and non storage applications (e.g. file, email, web, VDI, VoIP, video, etc).

Other WAN optimization vendors do not support replication on shared networks. For starters, they provide limited QoS (if any at all). Second, their answer to congestion is to perform aggressive TCP re-transmission, which has several limitations. It only works on TCP traffic, adds a significant amount of latency, and is very “unfriendly” to other applications that are trying to share the WAN with the application that is being aggressively re-transmitted.

- Silver Peak has **customizable management dashboards** for leading replication solutions from Dell, EMC, HDS, 3Par, NetApp, and other Silver Peak data center partners (see screenshot below). These tools identify the impact that bandwidth, latency, and network quality have on these vendors’ replication solutions.

Silver Peak’s management tools enable IT managers to easily monitor ongoing replication performance and perform rapid fault isolation when needed. These tools also make it easy to deploy replication over shared WAN infrastructures.

To learn more about how Silver Peak can optimize your data center environment, visit www.silver-peak.com

