



Banking On Silver Peak For Secure Reliable Disaster Recovery

Background

For more than twenty years, this software development shop and application service provider has been focused on the financial services and banking industry, delivering integrated solutions that address business process needs. The company developed the first integrated relationship management solution for bankers, and was the first to offer common platforms for loan origination across the lending process. The company's clients, which include more than 1,100 banking, credit union and financial services institutions, draw on the company's business expertise to improve critical processes, and leverage its commercial loan origination and customer management solutions as their enabling technologies.

“Before, we were struggling to keep pace with our growing disaster recovery needs. Now, we have no problem backing up extremely large volumes of data throughout the day.”

— Senior Network Administrator

Recently, this company was acquired by a global leader in providing value-added information solutions to organizations and consumers. The new company works with more than 50,000 clients across diverse industries, including financial services, telecommunications, health care, insurance, retail and catalog, automotive, manufacturing, leisure, utilities, e-commerce, property, and government.

So Much Data To Backup, So Little Time

As a leading software development shop and application service provider for numerous financial institutions, the company handles large volumes of sensitive information for a variety of clients distributed throughout the US, Europe, Asia, and Australia. Not surprisingly, disaster recovery is a major priority.

Client information is backed up hourly from a production facility in Carmel, Indiana, to a disaster recovery site near Indianapolis. Four backup jobs are run every hour, from 5 AM to 11 PM every day. These sites are connected via a T1 link, which quickly becomes saturated as large volumes of SQL transactions are required to synchronize client databases across both locations.

“Each of our customers requires their own database. As a result, our disaster recovery system has become a victim of the company's success,” said the company's Senior Network Administrator. “As volumes of data increased over time, we rapidly saw our T1 link become saturated at peak transfer times.”

The company began experiencing instances where they could not get all information from one site to the other during allocated 15-minute windows. This would cause the databases at each location to get out of synch. The only way to fix this was to go to the disaster recovery site and load the updated data from scratch, which was not very scalable, or cost-effective. This problem, which sometimes occurred as often as every two weeks, would take approximately 8 hours to fix — a major distraction for a busy IT group.

Customer: Software Developer (Banking)

Quick Facts

- Leading software development shop and application service provider to financial industry; serving over 1,000 clients for over twenty years
- High volumes of data and limited bandwidth made it difficult to perform remote backup during allocated transaction windows
- Silver Peak appliances deployed in production data center and disaster recovery location

Silver Peak Results

- 50x reduction in WAN bandwidth (peak); 15x data reduction on average
- Transfers reduced from 15 minutes to less than a minute
- Sensitive client information protected using hardware based, 128-bit AES encryption
- Solution taken out of box, configured, and deployed in less than an hour

With the pending acquisition by company did not want to upgrade the TI link between their sites in Indiana. Furthermore, they questioned whether throwing bandwidth at the problem was the right long-term solution.

“Most of the data that was saturating the TI link was repetitive information. It was already located in the disaster recovery site, but we had to send it again each time a database was backed up,” said the Senior Network Administrator. “We believed that there had to be a way to more efficiently utilize the bandwidth we had, rather than falling into the endless trap of constantly adding more bandwidth.”

Fast, Secure, Reliable, And Flexible

The company evaluated a variety of different vendors to find an application delivery solution that could meet their networking needs and business requirements. They concentrated their evaluation criteria into the following key decision areas:

- **Reduce replication time.** First and foremost, the company required a solution that would enable them to complete all backup transactions within their allotted half-hour window.
- **Security.** The company commonly deals with private information when performing projects for its financial clients. As the company could not risk exposing this information to unauthorized access, data protection was a very important decision criteria.
- **Support for a wide breadth of current and future applications.** In addition to their immediate need to support disaster recovery, the company required that their application delivery

solution be compatible with future applications.

- **Appliance scalability.** The company had plans to eventually upgrade their existing TI link to a higher capacity link as disaster recovery facilities migrated to new locations. They required a solution that could grow with the company as their application delivery needs increased.

The Solution — Silver Peak

The company evaluated a variety of different solutions from multiple vendors, before ultimately choosing and implementing Silver Peak NX Series appliances in their network. The company deployed Silver Peak NX-3500 appliances in both the Carmel and Indianapolis locations as a cost-effective and secure way of providing an order of magnitude performance improvement for their backup operations.

The primary reason the company chose the NX-3500 was for Silver Peak’s innovative Network Memory™ technology. Network memory uses advanced fingerprinting technology to inspect byte streams of information as they are sent between the company’s facilities, and store this information in local data repositories on each NX Series appliance. If repetitive information is detected by the near-end Silver Peak appliance, it will instruct the far-end appliance to deliver the information locally, rather than transmit it across the WAN. If “similar” information is detected, Network Memory would identify the variation and transmit just the “delta” across the WAN. This process conserves precious WAN bandwidth, while dramatically reducing application response times — enabling the company to easily backup up their growing volume of client databases in short transaction windows.

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The NX-3500s gave the company the flexibility to cost-effectively grow their application acceleration solution over time. These appliances support up to 10 Mbps of WAN capacity. While the company initially needed only 1.54 Mbps of WAN capacity, they expect to increase to the full 10 Mbps as their disaster recovery facility moves to Texas in the coming months, making the NX-3500 an ideal form factor for the company's emerging requirements.

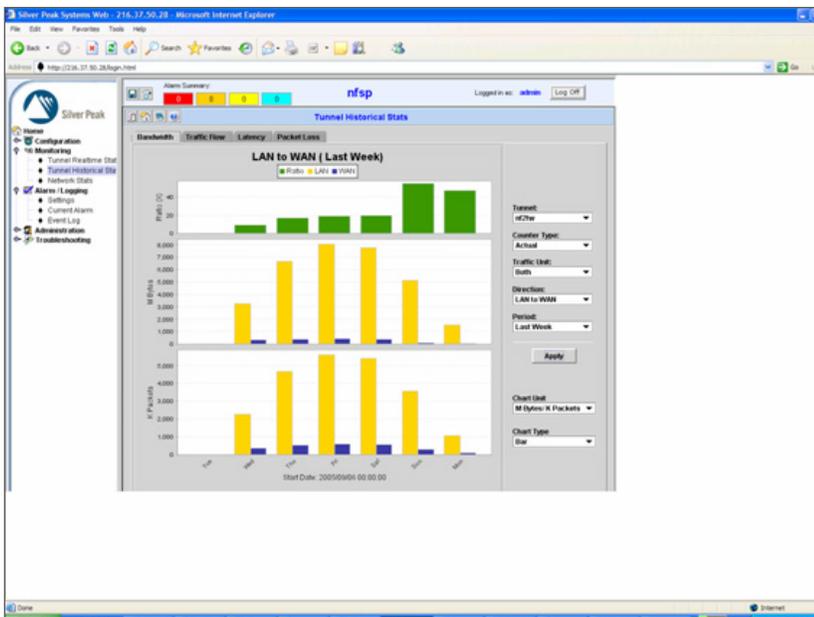
All Silver Peak NX Series appliances come with hardware-based AES encryption to protect local data stores (without sacrificing appliance performance). IPsec tunneling can be enabled between appliances to protect data across the WAN link. As a result, the Silver Peak solution provided an added level of security and confidence, which other application delivery vendors could not provide.

Lastly, of the solutions evaluated by the company, Silver Peak was the only one that provides performance gains across all applications. Other solutions worked only on TCP traffic and/or did not support interactive applications, like Telnet or Citrix, which are used frequently among financial institutions. Silver Peak gave the company the flexibility they needed to keep pace with evolving application needs in the financial industry.

A Foundation For The Future

The company immediate improvements once the NX-3500s were installed. For example, 15-minute transfers were reduced to less than 1 minute. The volume of data traversing the WAN was also significantly reduced—from 5.25 GB to 350 MB on average, which is a 15x improvement. Data

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reduction jumped as high as 50x during peak periods, enabling the company to get significantly better utilization out of its saturated WAN link.

“The ROI on the Silver Peak solution was very straightforward,” said the Senior Network Administrator. “Before, we were struggling to keep pace with our growing disaster recovery needs. Now, we have no problem backing up extremely large volumes of data throughout the day. This dramatically reduces the company’s (and our clients’) risk of exposure, which is an intangible benefit to our company.”

In addition, the company rarely has database synchronization problems anymore. The 8 hours that were spent every two weeks troubleshooting this type of problem can be allocated elsewhere. In this respect, the IT operational savings help to justify the investment in the Silver Peak solution, providing a rapid return on the company’s investment.

Going forward, the company is already exploring ways of incorporating the Silver Peak solution into additional application environments. For example, the company develops custom software for banks in foreign countries, with large volumes of data exchange between architects in the United States and coders overseas.

By placing Silver Peak appliances on both ends of the VPN link between these locations, the company plans to improve the way that information is shared with its partners using IBM ClearCase, Microsoft Sharepoint, and other collaboration tools.

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