



Colonial Savings Meets RPO with Silver Peak and Dell EqualLogic Replication

Offsite data replication improves nearly seven-fold using only a quarter of the available bandwidth

Business continuity best practices call for replicating data to a disaster recovery location, but the realities of today's wide area networks often make replication impossible for many organizations. Colonial Savings F.A., one of the largest mortgage servicing companies in the US, Colonial had built what should have been an ideal disaster recovery (DR) plan – a leading SAN, a DR site that was practically “next door,” and plenty of WAN bandwidth presumably made even better with Citrix application acceleration hardware. Yet, Colonial still found replication jobs falling behind.

Colonial decided to replace the existing WAN optimization hardware with virtual replication acceleration software from Silver Peak. “The virtual option was very important to us,” said Mike Drzycimski, the director of network operations at Colonial Savings. “There are no hardware upgrade costs or inflated prices for proprietary components, just great investment protection for our purchase.”

With Silver Peak replication acceleration software, Drzycimski and his team saw replication improve seven-fold (See Figure 1). Drzycimski not only met his recovery point objective (RPO), but did so at half the price

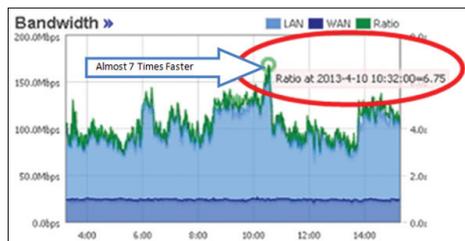


Figure 1: With Silver Peak and Dell EqualLogic, replication performance improved by nearly seven-times.

of WAN optimization hardware and with all the benefits of virtualization.

“Riverbed and Cisco were roughly twice the cost of Silver Peak,” added Drzycimski, “They’re very proud of their solutions, but they didn’t really offer anything more for the price.”

The Disaster Recovery Challenge

Colonial Savings F.A. is a comprehensive, national financial corporation offering mortgage, banking, life, property, and title insurance services.

As with many financial organizations, Colonial Savings has a strategic imperative for disaster recovery. Regulatory compliance demanded a “solid DR plan,” an imperative made all the more important with compliance regulations in the Gramm–Leach–Bliley Act (GLBA) and the Consumer Financial Protection Bureau (CFPB) coming into effect this year, explains Drzycimski.

Despite doing everything right, a “solid DR plan” proved difficult for Colonial. The company needed to protect 45 TB, replicating about 1 TB of changed data every day. Industry-leading SAN technology, the Dell EqualLogic PS-6000 series models, with Dell’s block level replication were deployed at the Colonial’s headquarters in Ft. Worth, Texas and the disaster recovery site in Lewisville, Texas. The two sites were only 35 miles apart so latency was minimal and seemingly bandwidth and packet loss should not have been factors either – a 100 Mbps point-to-point circuit, burstable to 300 Mbps, connected the two locations. Private circuits typically have insignificant amounts of packet loss and at 100 Mbps, the

Customer: Colonial Savings

Business Challenges

- Fulfill internal and regulatory imperatives for disaster recovery.

Technical Challenge

- Replicate one terabyte (TB) daily and meet a 15 minute RPO
- Replication workloads taking more than a week to complete

Technical Background

- Initial synchronization: 45 TB; Daily: 1 TB
- Offsite SAN-to-SAN replication with Dell EqualLogic PS6000s
- Two locations: Headquarters (Ft Worth, Texas); DR site (Lewisville, Texas)
- Bandwidth: 100 Mbps, point-to-point circuit
- Latency: 36 ms
- Peak Packet Loss: 7 percent

Results

- Improved replication performance by 7X, easily meeting RPO
- Reduced complexity and avoided of upgrading bandwidth to the DR site
- Improved line quality by reducing average packet loss to zero

one terabyte daily incremental should have taken less than 23 hours to complete (see for yourself at <http://www.silver-peak.com/calculator/>).

Yet, replication lagged each day, eventually falling days if not weeks behind. Reducing the daily incremental was impossible; the company had to protect the digital images of its loan documents, which constituted most of the replication job. To compound matters, Drzycimski expected his data center-DR site to migrate from an active/passive configuration to active/active datacenter configuration in the coming year. Line speeds between the two sites would need to be increased to 1 Gbps, far beyond the capacity of the Citrix acceleration hardware. To meet its 15-minute Recovery Point Objective (RPO) and a 4 hour Recovery Time Objective (RTO), Colonial needed a new approach.

Silver Peak: Half the Price, Nearly 7x the Performance

Drzycimski was familiar with Silver Peak software and wanted to see if changing the WAN acceleration technology could help. Riverbed and Cisco were also considered, but they doubled the cost of Silver Peak's software "Silver Peak provided a tremendous amount of value for the price," says Drzycimski. "No one could match the agility of Silver Peak's virtualized software."

Drzycimski deployed Silver Peak VX software on two servers, one in the data center and the other at the DR location. Using production traffic, Silver Peak reduced the link utilization by over 75 percent, increasing replication performance by 6.75 times. Throughput peaked at over 160 Mbps in just a quarter (25 Mbps) of the available bandwidth without any proprietary hardware.

Silver Peak also helped Drzycimski uncover the cause behind his poor data replication performance. The carrier had delivered a bad circuit to Colonial, causing packet loss rates to peak at seven percent (See Figure 2). "We didn't realize we were seeing so much loss until we put the Silver Peak management platform in place," he says. Application acceleration either ignores packet loss or [lacks the statistical accuracy](#) to detect many problems in today's corporate networks. "It turned out that there was a bad copper pair on the carrier's wiring," he says, "Thanks to Silver Peak we caught the problem."

Silver Peak VX software not only outperformed the competition, but was also easier to use and deploy. "A single morning is all that was required to get both units up and operational. Citrix involves a lot of finicky configuration, so installation time is much longer," he says. "Reporting and management of the Silver Peak software is also much easier than with Citrix Branch Repeater."

Colonial Savings, like so many other companies, continues to meet its RPO, thanks Dell Equallogic and Silver Peak software. "Without Silver Peak we would have missed our SLAs [service level agreements] and been exposed to numerous penalties." See how Silver Peak can help your organization. Download a free trial today: <http://marketplace.silver-peak.com>.

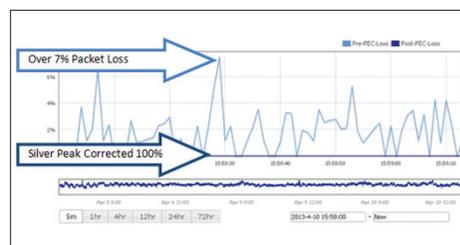


Figure 2: Silver Peak eliminated all of the packet loss on Colonial's line.

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