

**IN BRIEF**

**Industry**

» Financial Services

**Challenge**

» Accelerate data replication between sites to meet recovery objectives and avoid costly infrastructure upgrades

**Solution**

» The credit union installed Riverbed Steelhead appliances at its main data center and disaster recovery facility

**Benefits**

- » 78% reduction in bandwidth requirements for EMC SRDF/A and NetApp SnapMirror replication
- » Avoided upgrading storage hardware and WAN bandwidth
- » 20-minute recovery point objective complies with federal regulations
- » 100% payback almost immediately
- » Rich, granular reporting capabilities
- » More flexible options for disaster recovery



# GTE Federal Credit Union

## Credit Union Meets Federal Disaster Recovery Requirements with Riverbed Steelhead Appliances

Founded in 1935 during the Great Depression, GTE Federal Credit Union (GTE FCU, www.gtefcu.org) is one of the largest locally owned and operated financial institutions in west-central Florida, with \$1.8 billion in assets. Headquartered in Ybor City, just outside of Tampa, the member-owned, not-for-profit cooperative returns any money it earns to members in the form of higher dividends and lower rates.

**Challenge**

GTE FCU uses EMC Symmetrix DMX1000 and NetApp FAS storage systems as first- and second-tier storage, respectively, and replicates data on both platforms between its primary data center in Ybor City and its disaster recovery (DR) site in downtown Tampa. The volume of data had grown to the point where the credit union was no longer able to meet its recovery point objectives (RPOs), especially during high-volume periods such as mid-month processing and the end-of-month close.

**We realized a return on our investment in the Riverbed appliances almost immediately.**

and replication would just stop. Because we could only get so much over the pipe, we were forced to pick and choose what data was most important to replicate, threatening our ability to meet service-level agreements."

"We hit the bandwidth threshold," says Anthony Bender, director of technical support, information security officer, GTE Federal Credit Union. "The caches on the local EMC storage system would fill up,

The National Credit Union Administration (NCUA) mandates that federal credit unions have sufficient DR plans in place to be back up and running within 24 hours of a disaster, with an RPO of no more than 20 minutes. Bender and his colleague, UNIX Architect Vladimir Zamkovoy, were concerned about GTE FCU's ability to comply. Adding network bandwidth was one option, but was complicated by the fact that the credit union's network connection is a fiber OC3 line on a synchSONET ring, and the SONET was full. In addition, adding bandwidth would not address latency issues that were also affecting replication times.

"We were afraid that in order to continue to use EMC SRDF/A replication effectively, we either had to increase our 24GB cache on the EMC to 1TB or expand our network bandwidth fourfold, which would have required completely rebuilding the network infrastructure between the two sites," explains Zamkovoy. "Either option would have been very expensive, would not have completely addressed the issue, and we didn't have the budget."

**We haven't had an SRDF/A group fail since we put the Riverbeds in.**

### Solution: Riverbed Steelhead Appliances

Instead of a “forklift” storage or network upgrade, GTE FCU installed Riverbed® Steelhead® 6050 appliances at both locations to optimize the WAN connection. Powered by the Riverbed Optimization System (RiOS®), Riverbed Steelhead appliances accelerate replication across a WAN using a combination of data deduplication, compression and protocol optimization, eliminating the need to increase bandwidth or upgrade storage. Both NetApp and EMC are members of the Riverbed Technology Alliance (RTA), so GTE benefits from complementary technologies that are designed and tested to work well together.

**The Riverbed units handled the SnapMirror traffic better than Silver Peak’s, showing traffic reductions greater than fourfold.”**

says Bender. “We were also impressed with Riverbed’s support and development team—they were knowledgeable and prompt in getting us answers.”

When testing the Silver Peak offering, the EMC SRDF/A cache crept over 90% during the mid-month processing cycle, suspending all replication groups. “Silver Peak engineers were not able to find the cause of the problem,” says Zamkovoy.

### Benefits

#### 78% Data Reduction Enables 20-Minute RPO

With the Riverbed Steelhead appliances in place, GTE FCU is achieving an average 78% data reduction rate through deduplication and compression for both EMC SRDF/A and NetApp SnapMirror traffic. Even during the mid-month processing cycle and month-end close, the credit union is able to maintain sufficient throughput on the LAN-side while keeping the EMC DMX SRDF/A cache below 35% utilization. In testing, the Riverbed CPUs were running only slightly above 50% utilization, leaving significant headroom for more data or larger datasets to be processed if required.

“During our proof of concept, we noticed that the Riverbed units handled the SnapMirror traffic better than Silver Peak’s, showing traffic reductions greater than fourfold, while Silver Peak showed on average a two- to threefold reduction,” says Zamkovoy. “The final choice of Riverbed turned out to be easy.”

Because the credit union was able to avoid a storage upgrade as well as capital expenses and increased monthly costs for network connectivity, the Riverbed appliances paid for themselves very quickly. More importantly, GTE FCU is now able to meet the 20-minute RPO requirement set by the NCUA. “We haven’t had an SRDF/A group fail since we put the Riverbed Steelhead appliances in,” says Bender. “We realized a return on our investment almost immediately.”

GTE FCU conducted a three-month proof of concept, comparing Riverbed to WAN optimization offerings from Silver Peak. “In comparing the alternatives, Riverbed seemed to have a solution that was more advanced, and we were getting better results and reporting out of the units than we were getting with Silver Peak,”

**Installation was a snap. The Riverbed Optimization System recognized the SRDF/A and SnapMirror traffic automatically. We didn’t have to do any additional setup for that traffic to be processed and optimized.”**

### **Simplified Setup and Configuration**

In addition to native support for fiber-optic connections, the Riverbed appliances integrated easily with both EMC and NetApp replication technologies.

"The installation was a snap," says Zamkovoy. "RiOS recognized the SRDF/A and SnapMirror traffic automatically through its built-in policies. We didn't have to do any additional setup for that traffic to be processed and optimized. With Silver Peak, we had to perform additional setup steps to modify the maximum transfer unit sizes on all network equipment involved in the proof of concept to meet the requirements for SRDF/A traffic."

### **Detailed, Easy-to-Use Reporting**

Zamkovoy also appreciates the monitoring and reporting facilities provided by Riverbed. "It's very rich and granular compared to Silver Peak," he says. "System dumps can be collected and shipped to Riverbed's FTP site for analysis, and during testing, the monitoring facility allowed us to easily collect information about resource utilization and traffic flow, with details about each application specifying peaks, averages and lows. And we can specify the time of the report within a very specific range."

By contrast, the Silver Peak offering did not meet the credit union's reporting requirements. "There was no granular view into reduction and bandwidth optimization for each application," says Zamkovoy. "A pie chart showing a percentage distribution isn't enough."

### **More Flexible Options for Disaster Recovery**

GT FCU plans to find a new DR site farther away from its main location for enhanced business continuity in the face of a regional disaster such as a powerful hurricane. The Riverbed Steelhead appliances will give the credit union more options.

"With WAN optimization, the farther away you are, the better your return on investment is," Bender points out. "The Riverbed appliances will allow us more flexibility in the site we select, and will reduce bandwidth costs as well."

## **SUMMARY**

**GTE Federal Credit Union needed to accelerate replication between sites to comply with federal RPOs and avoid costly infrastructure upgrades. After evaluating WAN optimization alternatives from Riverbed and Silver Peak, the credit union was able to solve the problem using Riverbed Steelhead appliances, realizing a return on its investment almost immediately.**



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About Riverbed

Riverbed Technology is the IT performance company. The Riverbed family of wide area network (WAN) optimization solutions liberates businesses from common IT constraints by increasing application performance, enabling consolidation, and providing enterprise-wide network and application visibility – all while eliminating the need to increase bandwidth, storage or servers. Thousands of companies with distributed operations use Riverbed to make their IT infrastructure faster, less expensive and more responsive. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com.



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