



AFRICAN INSURANCE COMPANY MEETS RPOS WITH SILVER PEAK-DELL APPASSURE

When Global Alliance Seguros (“GA”), an insurance company in Mozambique, needed to establish a disaster recovery site, offsite data replication seemed like the best solution for protecting the data. GA was already replicating data across its data center with Dell AppAssure and meeting a two hour Recovery Point Objective (RPO), replicating data to a hosting site seemed like the next logical step.

But even well performing data replication technologies can be undermined by the Wide Area Network (WAN). Replicating 18 gigabytes (GB) to the remote site proved to be, well, a disaster. GA needed eight hours to complete off-site replication - four times longer than within the data center. “There was no way we could live with that kind of performance,” says Anton Nortje, IT Manager at Global Alliance, “Failing to deliver a disaster recovery solution would have exposed the business to hundreds of thousands of dollars in potential penalties not to mention leaving our company at risk in the event of a disaster.”

GA turned to Bytes & Pieces Lda, a local integrator, for help. Although a reseller for Riverbed and Silver Peak, Bytes & Pieces chose Silver Peak to address GA’s performance problems. “GA’s network challenges and its use of VMware made Silver Peak replication acceleration the logical choice,” says Amad Seni, general manager of Byte & Pieces. Silver Peak replication acceleration is virtual software [available online](#) and runs on any hypervisor, making it very easy to deploy in the data center or hard-to-reach hosting premises.

GA eventually followed Bytes & Pieces recommendations and deployed Silver Peak replication acceleration. The result: AppAssure replication improved by 4x, easily meeting GA’s RPO. “We didn’t just help AppAssure perform better,” says Seni, “Silver Peak improved every application across that WAN, increasing network throughput sixfold.”

“We were just amazed by how much faster AppAssure became when we turned on the Silver Peak,” says Nortje, “It made the difference between having a disaster recovery solution and not having one.”

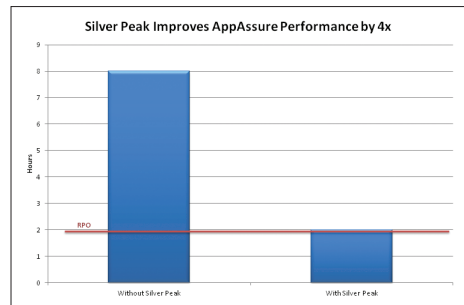


Figure 1: Dell AppAssure completed replication 4x faster with Silver Peak Replication Acceleration, meeting GA’s RPO.

DATA REPLICATION CHALLENGES

GA may be headquartered in the Maputo, Mozambique, but its challenges could apply to almost any company anywhere in the world. Insurance regulations required GA to establish an off-site, disaster recovery facility; AppAssure was used to move the data between the two locations.

Business Challenges

- Meet regulatory requirements to establish a disaster recovery location.

Technical Background

- Data center and disaster recovery site were both in Mozambique
- 4 Mbps MPLS network connection between locations; 1.5 Mbps used for replication.
- Dell AppAssure used for off-site replication
- 18 Gigabytes (GB) replicated daily
- 2 hour Recovery Point Objective (RPO); 24 hour Recovery Time Objective (RTO)

Silver Peak Results

- Met RPO, reducing replication from eight hours to two hours
- Improved AppAssure off-site replication throughput by nearly 4x
- Six-fold improvement in overall throughput.

The disaster recovery site was a hosting space leased from the local ISP and connected to the headquarters by a 4 Mbps MPLS connection. Dell AppAssure was allocated 1.5 Mbps; the remaining bandwidth was to be consumed by an assortment of applications including mail, HTTP and CIFS. The initial synchronization of 1 Terabyte (TB) of data was done on-site. Daily updates of about 18 Gigabytes (GB) were to be replicated by AppAssure to the hosting site.

GA found though that AppAssure replication slowed when moving data off-site. Small daily replicas would complete, but larger replicas would take a long time, backlogging the rest of the replication jobs. Overall, daily replication took eight hours, six hours longer than the RPO.

The network proved to be the problem. Long delays and high rates of packet loss caused in part by a WiMAX link in the MPLS network, undermined replication throughput. Average roundtrip delay between the two sites was 500 milliseconds, -10 times more than New York-California or New York-London – and peaked at two seconds. Packet loss averaged 1 percent, about twice what would normally be seen on an MPLS network, and peaked at about 6 percent.

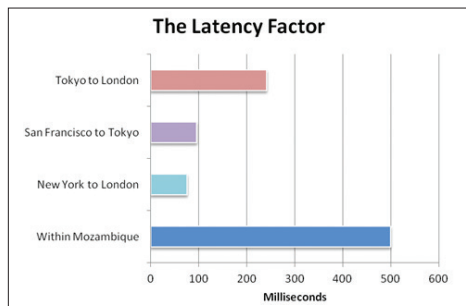


Figure 2: Sending data between the two sites in Mozambique took 10 times longer than sending data between New York and London

All totaled the 1.5 Mbps used for AppAssure replication was actually limited to just 300 Kbps. Adding even 10 times more bandwidth would not help. (See for yourself <http://www.silver-peak.com/throughput-calculator>.) GA had to address the underlying networking issues if RPOs were to be met.

SILVER PEAK REPLICATION

Bytes & Pieces recommended GA deploy Silver Peak Replication Acceleration along with Dell AppAssure.

Silver Peak Replication Acceleration is specially designed to overcome the network challenges that hamper off-site data replication. Silver Peak's Virtual Acceleration Open Architecture (VXOA), which underlies all Silver Peak products, improves replication by

- Increasing replication throughput by minimizing packet re-transmissions due to congestion and poor network quality.
- Maximizing available bandwidth for replication through byte level deduplication and compression
- Improving replication performance over distance by overcoming transport latency

What's more VXOA has no hardware dependencies and runs on any leading hypervisor: VMware vSphere, Microsoft Hyper-V, Citrix XenServer, or KVM. GA could easily deploy the Silver Peak solution onto a virtual host whether in remote hosting center, where access was restricted, or GA's own data center.

THE POWER OF SILVER PEAK-DELL REPLICATION

GA deployed Silver Peak software in both locations and immediately saw overall line throughput jump six-fold, giving GA's 1.5 Mbps connection the throughput of a 9

AppAssure replication improved by 4x with Silver Peak software

Mbps link. By taming delay, packet loss, and by eliminating data redundancies across all applications, Silver Peak created more bandwidth for AppAssure. With RPOs met and performance of all applications improved, GA could meet their regulatory requirements effortlessly.

GA's experience is hardly unique. Thousands of leading firms rely on Silver Peak for replication acceleration for their disaster recovery projects. By increasing replication throughput over any network environment, including a global Internet based WAN, Silver Peak saves time and money and ensures that the most stringent DR objectives are always met.

For more information, please contact your local Silver Peak representative or visit our website at www.silver-peak.com.

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