riverbed

NOTICE: New Product Names

The contents of this asset do not reflect our recent product name changes. Here are the new Riverbed® names:

Old Names	New Names
Steelhead	SteelHead™
RPM, OPNET, Cascade	SteelCentral™
Stingray	SteelApp™
Granite	SteelFusion™
Flyscript	SteelScript™
Whitewater	SteelStore™

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IN BRIEF

Industry
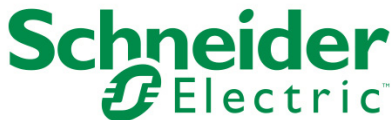» Energy Management

Challenge
» Ambitious IT infrastructure transformation to the cloud aimed at increasing business agility and reducing costs

Solution
» Cloud Steelhead appliances improve the migration to and performance from infrastructure as a service (IaaS) clouds

Benefits
» Greater business agility – business changes can be addressed in minutes vs. months previously

» Facilitates the move of servers from physical data centers to Amazon Web Services virtual private cloud environment

» "Pay as you grow" cloud pricing limits expenditures to services used

Schneider Electric

Riverbed Cloud Steelhead appliances support IT migration to cloud computing, SaaS and IaaS

Background:

Schneider Electric is a global specialist in energy management. The 176-year-old French firm got its start in the steel industry, then expanded into power and control in the last half of the twentieth century. More recently, the company broadened its scope to energy management, a move that extended its business portfolio while doubling sales and employees. Today, Schneider Electric employs more than 110,000 people in approximately 100 countries around the world.

Challenge: Reliable, fast Internet access critical to IT transformation

Schneider Electric's IT infrastructure links the company's global operations via three multiprotocol label switching (MPLS) networks supplemented by smaller, local networks in various locations. These networks connect approximately 1,000 remote sites with the company's four major data centers, where many of its critical applications have been consolidated.

The IT infrastructure is now undergoing a major transformation to help increase the company's business agility. The goal includes greater control over IT costs and support for the growing use of mobile devices such as tablet computers and smart phones, and a growing utilization of cloud computing, software as a service (SaaS) and infrastructure as a service (IaaS).

> "We have projects that need to get underway, but with our legacy data centers we aren't able to do that. Moving to the cloud will give our company more agility."

"We started an ambitious IT transformation program two years ago, with the consolidation of file and print services and application servers to our data centers and the introduction of some cloud-based applications such as Salesforce.com and Amazon AWS as an IaaS provider" explains Lionel Marie, network architect at Schneider Electric.

This change is shifting the IT team's focus from MPLS and data center quality of service to ensuring fast, reliable Internet access for every employee. "With everything in the cloud and the growing use of mobile devices, Internet access becomes more critical," says Marie.

Solution: Steelhead Cloud Accelerator software for SaaS

Riverbed Technology is working with Schneider Electric to ensure the success of its IT transformation, providing products that ensure fast and reliable, global data access for all employees over the corporate network and the Internet.

For applications that are still accessed over the corporate WAN, Schneider Electric has deployed Steelhead Cloud Accelerator software to accelerate data transfer and eliminate the effects of latency on application performance. Riverbed Interceptor® appliances extend the scaling and high- availability functions of the Steelhead appliances without affecting the data centers – important functionality for Schneider Electric because the company outsources some of its data centers and sometimes has no direct contact with the network equipments.

To support its move toward IaaS, Schneider Electric uses Riverbed Cloud Steelhead® appliances in conjunction with an Amazon Web Services Virtual Private Cloud (VPC). Cloud Steelhead appliances are specifically designed to accelerate the transfer of data to and from the cloud, ensuring that there is no degradation in end-user performance for users accessing resources in the cloud.

Amazon VPC is a private, isolated portion of the Amazon Web Services cloud. Having a VPC gives Schneider Electric a greater level of data security compared to a public cloud environment. In its VPC, the company has defined a virtual network topology that closely resembles a traditional network, with complete control over the environment, including selection of its own IP address range, creation of subnets, and

configuration of route tables and network gateways. Schneider Electric currently runs fifteen applications from its Amazon Virtual Private Cloud.

Benefits: Cost savings, scalability, and LAN-like application performance over the WAN

Schneider Electric is currently about halfway through its IT transformation, yet the company is already seeing a reduction in IT costs. Each of the Riverbed products contributes to the savings. The Steelhead appliances, for instance, deliver LAN-like performance for applications running in the data centers. In addition, data deduplication has reduced the volume of traffic on Schneider Electric's WAN by an average of 75 percent for optimized traffic, leading to fewer bandwidth upgrades. The Interceptor appliances make it easier for Schneider Electric to avoid costs related to data center disruptions, and to control capital expenses.

Cloud Steelhead appliances will save the company money when it moves to cloud computing. When that takes place, the savings should be substantial since the company will pay for only the resources it needs. "With the Amazon VPC, we can add 10 servers when we need them and turn them off when we don't," explains Marie. "We only pay for the time used. With the legacy data centers, if we were to install 10 servers and then wanted to remove them later, it would take longer to remove and the cost would be much higher. Cloud Steelhead appliances also enable us to save on costly Internet bandwidth when connecting to Amazon Cloud, and we have seen an 11x data reduction ratio for data transferred from our Amazon Virtual Private Cloud to our end-users."

Another advantage is that the IT team can now react more quickly to business developments, such as in the event the company starts a new project and needs a new server to support it. "We used to have a third party buy it, rack it and configure it, and it could take weeks to get it running," says Marie. "We have projects that need to get underway, but with our legacy data centers it could be complex at times to achieve. Moving to the cloud will give our company more agility."

SaaS providers offer a good precedent for how Schneider Electric plans to use cloud applications once the IT transformation is complete, and more than 22,000 Schneider Electric employees access SaaS solutions today. Despite its value, two current challenges slow the performance of the SaaS application. The first is the back-haul Internet connections that route users across the private WAN before accessing the public Internet. The second are countries using a direct Internet link but that are far from SaaS providers' data center (Australia, for example). Fortunately, this could be addressed with another Riverbed solution – Steelhead® Cloud Accelerator.

"Backhaul connections introduce additional distance and latency and consume additional bandwidth, making access to our SaaS provider problematic," explains Marie. "Overcoming the performance challenges was critical for us to effectively process customer orders and provide excellent customer service. To evaluate the solution, we deployed Steelhead Cloud Accelerator from Paris and backhauled to our SaaS provider's data center in the US. We achieved 80 percent data reduction while utilizing six times less bandwidth. The test results are really encouraging and demonstrate that the joint solution from Akamai and Riverbed can avoid a costly bandwidth upgrade and address the performance challenges we are encountering."

SUMMARY

Schneider Electric is transforming its IT infrastructure to increase the company's business agility, gain greater control over IT costs, and support the growing use of mobile devices, cloud computing and IaaS. Schneider Electric is utilizing a portfolio of Riverbed solutions to ensure the success of its IT transformation, including Riverbed Cloud Steelhead appliances. Schneider Electric immediately experienced a reduction in IT costs. Steelhead appliances deliver LAN-like performance for applications running in the data centers, and have reduced optimized traffic volume across the WAN by an average of 75 percent leading to fewer bandwidth upgrades. Interceptor appliances avoid costs related to data center disruptions and help control capital expenses. In addition, Cloud Steelhead appliances will save the company money when it moves to cloud computing, as Schneider Electric will only pay for the resources it needs.

About Riverbed

Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize and consolidate their IT, Riverbed helps enterprises to build a fast, fluid and dynamic IT architecture that aligns with the business needs of the organization. Additional information about Riverbed (NASDAQ: RVBD) is available at **www.riverbed.com**.

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