International Union for Conservation of Nature

IUCN improves application performance by 80% in support of global conservation efforts

IUCN, International Union for Conservation of Nature, was founded in 1948, and is the global authority on the status of the natural world and the measures needed to safeguard it. IUCN works with 1,400 member organizations and the input of 16,000 experts worldwide.

Its most high-profile projects include the Bonn Challenge, a global forest reforestation effort, The IUCN Red List of Threatened Species™, and Mangroves for the Future, an initiative to build the resilience of coastal communities in Asia against tsunamis and other disasters.

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Francois Jolles, with a background in multinational fast moving consumer goods businesses, was appointed CIO in 2014 to develop and implement a new global IT strategy. One of his initial focus areas was to globalize IUCN's network as a foundation for the longer-term goal of digitizing the organization.

"IUCN has offices in more than 50 countries around the world and a fast and reliable connection between them is paramount, yet we were relying on each location to arrange its connection to the Internet," said Francois Jolles, CIO, IUCN. "A new infrastructure will greatly improve the way different IUCN teams – including those located in the most remote areas – can access our global applications and collaborate with one another."

"It's important we demonstrate to our donors that we're using their money wisely. A big part of that is showing that we stay efficient and share our knowledge effectively."

Challenge: Making the case with lift in duplication performance

The board of IUCN was made aware of the challenges of connecting their offices globally, but there was another, more pressing issue. As global applications started to be deployed, the organization needed to address slow data replication rates between its Swiss-based global data centers.

In Brief

Challenges

- Improve network performance across remote offices
- Standardize global network management in a "follow-the-sun" approach
- Create more robust data security and disaster recovery

Solution

- Riverbed® SteelCentral™ to monitor, troubleshoot, and analyze application performance across the global network
- Riverbed® SteelFusion™ to simplify management of remote IT, consolidate remote infrastructure in the datacenter, and improve data security and back-ups
- Riverbed® SteelHead™ to optimize application performance and increase productivity

Benefits

- Improved application performance by 80%
- Enabled 4.5 times more data to be sent through the same bandwidth
- Removed local back-ups; all data stored centrally
- Established an IT infrastructure to support new applications
- Contributed to IUCN's sustainability agenda

With Riverbed® SteelHead™, organizations can transfer and replicate more data more often with greater visibility and control and less risk, thereby ensuring rapid data recovery times and improved business continuity. "There was a clear need to accelerate replication rates – it was taking up to 24 hours. I'd previously worked with Riverbed and knew they could tackle this challenge between our central data center and our disaster recovery one."

This proved a quick win and strengthened the case for greater involvement with Riverbed, providing support for Jolles' broader plans: "I always look for evidence that we've done what was promised and to demonstrate we've met our goals. With the data center replication, we cut times from 24 hours to less than an hour. Our management team who authorized the investment appreciated the results."

Solution: Improved back-up, faster provisioning

Jolles wanted to use Riverbed® SteelFusion™ to address remote office connectivity, focusing initially on the 15 largest offices. SteelFusion is the only Software-Defined Edge (SD-Edge) solution that delivers both infrastructure consolidation and local application performance while also enabling data convergence, instant app provisioning, data recovery, and lower TCO.

This would allow IUCN to converge remote storage, server, backup and networking infrastructure into one appliance; and secure 100% of the company's data in the global data center while delivering the application performance required by remote workers. IUCN operates in many remote parts of the world and the new solution would end the practise of local back-ups and make it significantly quicker to provision new services as well as implement additional locations.

The SteelFusion Edge (SFED) delivers the foundational building blocks for a converged Riverbed solution at critical remote sites. IUCN uses SFED, which comes packaged with SteelHead WAN optimization on the same appliance to ensure optimal application performance at the edge.

In addition, Riverbed® SteelCentral™ provides application-aware network performance management by recognizing the telemetry information from the SFED. This solution drastically reduces the time and effort required to develop, deploy, and maintain remote application performance while concurrently protecting company data.

The implementation of SteelFusion started in late 2015. Jolles says the roll-out was never going to be rushed at each site, with upgrades for personal computers, including new standard setup, and configuration management to be implemented: "We wanted to get the process right and get to a stage where we could 'industrialize' and easily repeat the process for other sites. We're now able to quickly deploy new sites, taking less than two weeks to be fully up and running. This is extremely impressive."

Benefits: Network optimization, change of culture

Within a year of the start of the upgrade, Jolles was able to present performance improvement metrics to IUCN management. "The solution has led to an 80% improvement in application response times; the organization is sending 4.5 times more data through the same bandwidth; and network costs are transparent: We now have highly optimized traffic and we can prove what we promised is working," says Jolles.

While the metrics make for great headlines, the change in culture is equally important. The new network improves global collaboration and communication. IUCN staff can work differently.

"We now use Skype for Business extensively, with excellent voice and video quality. Previously, conversations could be patchy but now we can hold longer, more effective meetings," says Jolles. "We've also launched a Global Business Intelligence tool that allows management to report on projects in every office. Our financial team is using Microsoft Dynamics NAV, and is able to process more in a day."

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It's also much easier for IUCN to involve local resources in global projects. For instance, a reforestation project in Costa Rica could now use an unassigned resource in the Nairobi office. "We can now better share resources," says Jolles. "In the past, we would have needed to hire someone locally."

Operationally, IUCN is also more secure. There is no need for locally stored back-up, all these operations are are now standardized around our global data center. This is a very real benefit.

"Riverbed SteelFusion was critical to our disaster recovery plans," says Jolles. The solution also supports IUCN's sustainability agenda.
The Swiss data center has reduced electricity consumption by 27% over the past two years. Jolles also advises that by stripping out 4-5 servers from some of the larger regional offices and replacing with one Riverbed SteelFusion Edge, he envisages it will have a similar impact:

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"We've shown people that the strategy of globalization and digitization is working," Jolles continues. "The improvements are obvious. This has earned us the right to move on."

Next, Jolles plans a critical upgrade to the CRM tool and a globalized contract management application. The expectation is that both will improve management visibility, efficiency and cost. A move to Office 365 is also planned.

"We're looking at ten new initiatives, all of which rely on the new network infrastructure and will address inefficiencies," he says. "We want to create a database of digital assets – pictures, video, and sound recordings. These tend to be large file sizes, so previously, it would have been impossible to share these easily."

Further ahead, Jolles is keen to add live video feeds and explore data collection by drones. He says the role of technology within IUCN is evolving and changing: "We're working on projects where technology will be one of the deliverables, and it's up to us to showcase how technology can make a real difference."

About Riverbed
Riverbed, at more than $1 billion in annual revenue, is the SD-WAN company, delivering the most complete platform for the hybrid enterprise to ensure multi-cloud connectivity, applications perform as expected, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application and cloud performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed's 28,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com

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