

Elizabeth Glaser Pediatric Aids Foundation



SteelHead Supports Life-Saving Work by Increasing Staff Productivity and Improving Information Given to Donors

Founded in 1988, the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) has become the leading global nonprofit organization dedicated to preventing pediatric HIV infection and eliminating pediatric AIDS through research, advocacy, and prevention and treatment programs.

EGPAF currently supports more than 7,300 healthcare sites around the world. Since EGPAF's international efforts began, EGPAF—supported programs have reached nearly 18 million women with services to prevent the transmission of HIV to their babies; tested nearly 16 million women for HIV; enrolled more than 2 million individuals, including nearly 165,000 children, into HIV care and support programs; and started more than 1.1 million individuals, including nearly 99,000 children, on antiretroviral treatment.

Challenge: Slow internet connections in Africa

A remarkable part of the EGPAF story is that transmission of HIV from a mother to her newborn is very rare now in North American and Europe. Pregnant women are routinely screened for HIV and when they are positive, they begin a treatment regimen that protects their babies from contracting the virus. Since this does not happen in other parts of the world, EGPAF has shifted its focus to the areas of greatest need—particularly Africa.

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Senior Engineer
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EGPAF operates in 13 African countries. It maintains a main office in each country, which is typically located in the country's capital. Each main office oversees a number of sub-offices, which in turn direct the activities of 6,800 local healthcare sites. These sites are where the testing, treatment, and patient education are done.

The main offices and sub-offices are equipped with computers and Internet access, which employees use to communicate with each other and with EGPAF offices in Washington, D.C., Los Angeles, and Geneva. Employees in Africa also use the Internet to access centralized applications such as a contract management system, a reporting system called Global AIDS System for Evaluation and Reporting (GLASER), and an HR performance evaluation system.

"When we first put these web-based systems in, they ran very slowly," says Kevin Burr, the Foundation's senior engineer. For example, the Rwanda office needed to download the user manual for the contract management system. "It took eight minutes to download that manual," Burr says. "In Swaziland, people would log in to use the performance evaluation system, then complete other assignments while the page loaded."

EGPAF had more than 1,000 employees trying to work this way. The time they spent waiting for the applications took time away from the real work they could have been doing

to combat HIV. And the number of people they were helping was growing each year (from approximately 4.5 million in 2008 to 6.2 million in 2012), putting even more pressure on the web-based processes.

Another problem with the slow connections was that it made it difficult to collect data from the field, which is critical to EGPAF's funding. "We report quarterly to our donors, so we need to upload field data frequently," Burr explains. Employees in Africa would try to send large Excel spreadsheets to the Foundation's headquarters, or open an HTML form in a database and enter information there. Both processes were so slow that "We were really struggling to respond to our donors quickly and accurately. Generating the reports was often a scramble involving a lot of paper and faxes," according to Burr.

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In Brief

Challenges

- Mission—critical time and productivity lost due to unresponsive web-based applications
- Difficulties gathering field data for quarterly reports
- Increasing transparency with donors and supporters with timely patient data from field operations

Solution

- SteelHead WAN optimization

Benefits

- More time, energy, and money devoted to core mission
- Faster applications: Page downloads over the Internet in seconds versus minutes
- Elimination of paper processes and redundant data entry work
- More accurate, timely information for donors; high Charity Navigator ranking
- Several thousand dollars/month saved by eliminating hosting sites
- Secure investment with good ROI

Solution: SteelHead WAN optimization delivers results in “worst—case scenario”

Equipping the sites with more bandwidth was one way of addressing the slow Internet performance, but it would have been very expensive and wouldn't address latency. Instead, working with VistaOne Corporation, Burr identified WAN optimization technology as a more cost—effective approach.

He evaluated a number of solutions, including a SteelHead® appliance from Riverbed Technology. In addition to looking for performance improvement, his selection criteria included affordability, remote management, and a vendor he could rely on for support.

“As a non-profit, funding is tight. That made pricing a key consideration. Also, because we don't have a lot of money for a big IT staff, we were looking for appliances that we could manage remotely,” Burr explains. “The other thing we needed was good support. This was key because we couldn't dedicate one person to network optimization. We needed a partner that would provide help with that.”

Riverbed loaned EGPAF a SteelHead appliance to test in the Rwanda office where it had taken eight minutes to download a user manual.

With the SteelHead in place, the download took only 20 seconds. “We knew immediately that the SteelHead appliances would be a big win for us because Rwanda is our toughest infrastructure,” Burr says. “The Internet is slow, and there are not a lot of engineering or consulting resources. Rwanda was a worst—case scenario, and the SteelHead performed like a champ.”

The Riverbed solution met the affordability criterion. As Burr explains, “Because there is so much flexibility in the product line, we didn't have to put heavy—duty devices in offices that didn't need them. That made the cost of the solution very reasonable.” The SteelHead appliances also met the remote management criterion, and Burr could see his support requirement would be met as well. “From the generation of user requirements, to implementation, to configuration, the support from Riverbed and VistaOne has been excellent,” he notes.

EGPAF installed SteelHead appliances in all 13 of its main African offices and in many sub-offices—a total of 27 appliances in all.

Benefits: More time and money devoted to life—saving work

“The SteelHead appliances had a huge impact on day one,” says Burr. “We can actually use our web-based systems now.” For example, EGPAF's performance evaluation system, which used to stall productivity and force a coffee break, now loads pages in five to eight seconds.

The process of gathering the data needed for quarterly reports has been similarly transformed. “The SteelHeads sped things up incredibly,” Burr notes. “They have made this information available so much faster, which helps us to have accurate data to share with our donors.”

“Our donors have trusted us for 25 years to provide them with impact reports that show how their donations are used” adds Joy Hallinan, EGPAF's Director of Development. “Any efficiencies in our data gathering system through the use of new technologies enable us to be more responsive to our donors and maintain their trust.”

Another important benefit of the SteelHead deployment is that less money is spent on administrative tasks and more time on real work. For example, EGPAF's contract management system was previously so cumbersome to use over the Internet that employees in Africa gave up on entering their own data, and emailed it to the U.S. for someone there to process. Since the SteelHead deployment, workers in Africa now upload their documents themselves, reducing the number of people needed in the U.S. for data entry and document uploading.

“The fact that we don't have to hire additional administrators or temporary workers to do data entry work means that we can hire more technicians or epidemiologists or experts in data analysis,” Burr explains. “The enhanced efficiency in the IT department lets us focus our limited resources on bigger value results.”

In addition to allowing people to work more efficiently on activities that really matter, the SteelHead appliances are saving EGPAF money that was formerly spent on hosting sites. For example, EGPAF had set up a site in London to host its intranet because it was a shorter hop from Africa (compared to locating it in the U.S.). Once the SteelHeads were in place, it became possible to host the intranet in the Washington, D.C. headquarters, saving the \$1,400 per month cost of the London site. “Not only were we able to stop paying for that hosting service, but performance actually improved,” says Burr. Similarly, EGPAF is saving several thousand dollars per month through the elimination of another hosting site in Canada.

The SteelHead deployment also made it possible to avoid the substantial cost of additional bandwidth for the African offices. “We need to move so much data into our program database during reporting periods that we had considered buying an additional Internet line for each office and dedicating it to data entry,” Burr explains. “Internet connectivity is very expensive in Africa—approximately \$1,000 a month for a one-megabit per second connection. Thanks to SteelHead, we didn’t have to do that.”

Overall, Burr reports, “We’re happy being a Riverbed partner.” He appreciates the fact that he doesn’t need to upgrade his SteelHead appliances frequently in order to receive the latest features. “The functionality in RiOS and SteelHead is continuously enriched, and the fact that Riverbed will incorporate all that into the existing to SteelHead product family is great,” he notes. “The longevity of the support on our hardware reassures me that our investment, which was significant, will have a good long life.”

Burr also values the fact that the Riverbed product line grows in line with his plans, such as providing network access for mobile workers at the healthcare sites and taking advantage of cloud-based services. “Each time we call VistaOne or Riverbed and describe something new we’re trying to do, Riverbed has a product that addresses it. The way that Riverbed expands its product line, with items that are exactly what its customers need, is impressive to us.”

Summary

EGPAF’s initial experience of using the Internet to deliver data and applications to its offices in Africa was very discouraging. The 1,000+ employees working there spent so long waiting for information to download that they lost time for the real work of fighting the spread of HIV. They also found it very time-consuming to collect and upload the field data needed for quarterly reports.

Bandwidth upgrades offered only a partial, and very expensive fix. EGPAF chose to go with SteelHead WAN optimization instead, eliminating the need to buy more

bandwidth while also addressing the latency that was slowing application performance. With pages downloading in seconds rather than minutes, African staff members now have more time to devote to the real work of HIV prevention. The foundation has been able to eliminate some paper process and redundant data entry, while providing more timely information to donors. The SteelHead deployment enabled EGPAF to eliminate some hosting sites, saving several thousand dollars/month.

About Riverbed

Riverbed, at more than \$1 billion in annual revenue, is the leader in application performance infrastructure, delivering the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed’s 26,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com.

The Riverbed logo consists of the word "riverbed" in a lowercase, bold, orange sans-serif font.