

CASE STUDY: LG Electronics

IN BRIEF

Industry

- Manufacturing (Electronics)

Challenges

- Control significant bandwidth costs
- Accelerate remote user access to critical applications

Solution

- Global deployment of Riverbed Steelhead appliances

Benefits

- \$6 Million US saved annually in bandwidth expenses
- Payback period of just five months in bandwidth savings alone
- Users can access key applications 20 times faster over the WAN



Riverbed Steelhead® Appliances Save \$6M in Annual Bandwidth Costs and Accelerate Operations for Large Global Manufacturer

LG Electronics, Inc. (www.lge.com) is the world's major force and technology innovator in electronics, information and communications products. Headquartered in South Korea, the company has more than 72,000 employees working in more than 120 overseas operations including 77 subsidiaries and marketing units around the world. LG Electronics is the world's largest producer of CDMA handsets, DVD players, optical storage devices, air conditioners, canister vacuum cleaners and micro ovens.

LG embraces the philosophy whereby only great people can create a great company. As a team, the company pursues two growth strategies: "fast innovation" and "fast growth." The company seeks to maintain three core capabilities: product leadership, market leadership, and people-centered leadership.

Challenge: Maintaining Fast, Affordable Wide Area Network Access

Capacity was continuously being stretched to the limit across LG's corporate network. The company was experiencing increased usage across all locations and all applications. Mr. Kang-Seok Chung, senior manager, IT Infrastructure Group, and leader of the Steelhead appliance rollout commented, "More and more data was moving over the network. In addition to increased usage, we have seen a significant increase in the number of internal applications that require network access.

"All of our critical applications have seen significant acceleration when accessed from remote offices."

To complicate the matter, we found that end users had increasing expectations of network performance."

LG has offices and employees distributed all over the globe. "With more than 72,000 employees and more than 120 overseas operations including 77 subsidiaries, we have a massive investment in bandwidth and infrastructure. But, as you know international connectivity is both more expensive and higher latency than domestic connectivity. We knew that adding more bandwidth was simply not a viable long-term solution," recalled Chung. While adding more bandwidth would provide some benefits, he recognized that latency on the network impedes throughput, and a comprehensive solution must overcome both bandwidth limitations and the impact of latency.

Solution: Steelhead Appliances

In addition to examining the potential for deploying more bandwidth, LG also looked into redesigning many of its new applications. That alternative also proved to be too expensive, and so the company investigated Wide-area Data Services (WDS) products.

Chung and his team performed extensive tests on Peribit (now part of Juniper Networks) and Expand products, as well as the Riverbed Steelhead solution. "The Riverbed Steelhead solution performed better than the competition," recalled Chung. "It produced the fastest response time of all the technologies tested, and it supported more of our critical protocols. Riverbed did a better job of reducing WAN traffic. Finally, Steelhead appliances were the easiest to manage, which is a critical component to a successful global deployment as large as ours."

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SUMMARY

LG Electronics was looking for a scalable way to meet the growing demands facing its wide area network.

Increasing usage and a growing number of applications combined with expensive, high latency international connections made the challenge especially difficult.

After deploying Riverbed Steelhead appliances, LG experienced immediate, dramatic results, including 20 times faster access to critical enterprise applications and US \$6,000,000 in annual bandwidth savings.

LG has deployed the Steelhead appliance in more than 80 locations worldwide.

Benefits: Bandwidth Savings and Application Acceleration

LG saw immediate and dramatic benefits from deploying Riverbed Steelhead appliances. "Our critical applications have seen significant acceleration when accessed from remote offices. For example, eNet, our Lotus-based intranet, is 20 times faster than before. The response time for our purchase and inventory system is seven times faster," remarked Chung. "While our results are slightly different for each applica-

tion, overall we are very happy with the response time improvements that Riverbed has enabled."

"Steelhead appliances were the easiest to manage, which is a critical component to a successful global deployment as large as ours."

Before the Steelhead appliance deployment, certain internal applications were simply unusable for employees in remote offices. For example, the Purchase/Sales/Inventory application could

not be accessed from the Vladivostok office previously. After the Steelhead deployment, users could easily access the tool within a few seconds, dramatically improving productivity for the remote office.

LG also saw massive bandwidth savings. "Bandwidth is not cheap for international companies, especially in the Asia Pacific region. But immediately after deploying the Steelhead solution, we saw a reduction in bandwidth utilization of 40% in critical parts of our global network," said Chung. As a result, Riverbed saves LG a total US \$6,000,000 in annual bandwidth expenditures, while creating faster access times for remote employees. In this case, the Riverbed Steelhead appliance has a payback period of just five months based on bandwidth savings alone.

"I wish all IT projects could produce such impressive, tangible results."

Chung concluded, "I wish all IT projects could produce such impressive, tangible results."

About Riverbed

Riverbed Technology is the performance leader in wide-area data services (WDS) solutions. By enabling application performance over the wide area network (WAN) that is orders of magnitude faster than what users experience today, Riverbed is changing the way people work, and enabling a distributed workforce that can collaborate as if they were local.

Riverbed's Steelhead appliance has been named *InfoWorld's* "Technology of the Year" in both 2005 and 2006 as the "Best WAN Accelerator". In addition, Riverbed was named the winner of *The Wall Street Journal's* 2005 Technology Innovation Award in the Network/ Broadband/Internet category, *Network Computing's* 2006 Well-Connected Award for Remote Office Network Infrastructure, and *eWeek's* 2006 Excellence Award for Networking Infrastructure. Riverbed's award-winning solutions are available worldwide from resellers who are members of the Riverbed Partner Network, from Riverbed OEM partners, or directly from Riverbed.

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