

LIMELIGHT NETWORKS

APPLICATION DELIVERY

Brocade Takes The Performance Spotlight at Limelight Networks

Challenges

- Upgrade network and increase 10 Gigabit Ethernet capacity to support customers' bandwidth demands
- Capacity to provision 10 Gigabit Ethernet ports quickly
- Support network and traffic growth, which is increasing 500 percent each year

Solutions

- Brocade NetIron XMR Series and Brocade NetIron 40G routers allow Limelight to offer customers 10 Gigabit Ethernet and Gigabit Ethernet ports in the content delivery centers
- FastIron edge switches distribute traffic from the network edge
- Brocade ServerIron GT and Brocade ServerIron XL switches balance traffic across the Web content servers

Benefits

- Limelight Networks improved to 1 terabit capacity and doubled the number of ports without increasing the overall network footprint
- Limelight can easily deliver and support sensitive media-rich content, including IPTV, video streaming, large file transfers, and Internet gaming traffic
- Provisioning new 10 Gigabit Ethernet ports is cost effective and uncomplicated to cost justify
- Brocade solutions readily scale to support Limelight Networks' expanding business

Limelight Networks is a high-performance, content delivery network for digital media, providing massively scalable, global delivery solutions for on-demand and live Internet distribution of video, music, games, and downloads. Limelight Networks' infrastructure is optimized for the large object sizes, large content libraries, and large audiences associated with compelling rich media content. Limelight is the content delivery network of choice for more than 700 of the world's top media companies, including Amazon Unbox, "BuyMusic" @ Buy.com, DreamWorks, LLC, Facebook, FOXNews.com, IFILM, ITV Play, Marimba, MSNBC.com, MySpace, NC Interactive, Radio Free Virgin, and Xbox Live.

SUMMARY

If you have tuned into a major videocast after a breaking news event or downloaded a popular television show from your computer, you probably viewed a clip hosted and delivered by Limelight Networks. Thanks to Limelight, content providers can focus on doing what they do best—create compelling content for their target audiences—while leaving the challenge of immediate, reliable delivery to Limelight.

Limelight has emerged as the premier provider of media-rich content, an

unprecedented ascension within the competitive Content Delivery Network (CDN) market. Audiences from around the world enjoy video, music, games, downloads, and social media content from Limelight's robust, high-performance CDN.

CHALLENGES

Limelight launched its content delivery services in 2004 with the express intent of introducing a compelling "digital lifestyle" experience for its customers. As the customer base grew and demand for more 10 Gigabit Ethernet (10-GbE) ports increased in 2005, Limelight looked to the next-generation Brocade Ethernet router, the Brocade NetIron XMR, to help build a network infrastructure that would guarantee cost-effective scalability. To establish a premier position in the CDN market, Limelight needed equipment that would allow them to deliver unmatched performance and network capacities to its customers at unprecedented price points.

"We want to be at the forefront of the 10 Gigabit Ethernet push, and the NetIron XMR delivers the capacity we need," says Denver Maddux, director of network architecture at Limelight Networks. "The cost per port is significantly lower than competitors'

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SUCCESS STORY

equipment, and the router is more flexible because it gives us the ports we need for peering and transit in our Internet exchanges. The XMR makes provisioning 10 Gigabit Ethernet ports easy, which is a huge advantage for us.”

SOLUTIONS

Brocade NetIron routers and switches are deployed throughout Limelight’s global backbone network in each of its worldwide CDN centers. “We built the network out to 1 terabit capacity. Brocade gave us the best solutions for building to that capacity,” says Maddux.

The Brocade NetIron XMR is the workhorse in Limelight’s network, operating as both core and edge routers in all its POP locations. Limelight has adopted 10 Gigabit Ethernet trunking for massive scalability over long-haul, intra-POP connections. Additionally, at each of the CDN edge distribution points, the Brocade NetIron XMR allows unparalleled commercial and private peering at both 10 Gigabit Ethernet and Gigabit Ethernet interconnections.

Limelight also uses Brocade FastIron® edge switches for server aggregation and metro access, and Brocade ServerIron® switches support application delivery functions.

BENEFITS

Adding the Brocade NetIron XMR routers quadrupled Limelight’s network capacity to 1 terabit. One huge benefit of the Brocade NetIron XMR routers is that Limelight was able to increase network capacity without requiring more physical space in the data center.

“We’re getting four times the capacity and available port density in the same footprint,”

says Maddux. “Another bonus is that the 10 Gigabit Ethernet ports can run at line rate, so we’re getting the full 10 gigabits, not 8 or 9 gigabits.”

Brocade couples bandwidth capacity with performance. Because so much of the media-rich content on the Limelight CDN is packet sensitive, the traffic cannot experience any delay.

“No other networking company has better packet capacity than Brocade. Streaming media is a packet-sensitive service and that’s where Brocade really shines,” says Maddux.

This exceptional performance comes at an extremely reasonable price. Limelight purchased the Brocade NetIron XMR routers at a significantly reduced price over competitive high-performance routers. The lower cost influenced the purchasing decision, as did the routers’ long life expectancy.

“The Brocade NetIron XMR gives us major cost and performance benefits. When we looked at the port density in the Brocade NetIron XMR, no one had anything comparable. I would have outgrown other routers in a year,” says Maddux.

Because of the incredible port density in the Brocade NetIron XMR, Limelight can quickly respond to customer requests for 10-GbE connections. While some service providers need weeks or months to provision 10-GbE connections, Limelight delivers the needed bandwidth increases at a fraction of the time and expense of other providers.

“We can provision new connections almost immediately,” says Maddux. One reason provisioning new circuits is so simple is because Limelight does not need to cost justify each connection.

“For other providers, the cost for provisioning more ports is 10 times our costs,” he says. “They must go through red tape, while we are able to hand out 10 Gigabit ports to our customers like candy.”

Responding to customer bandwidth requests and expanding the network footprint are ongoing objectives for Limelight. The company is experiencing an amazing traffic growth rate of 500 percent each year, and it expects the progress to continue. These goals make scalability a major concern for Limelight.

“The services we offer are growing in terms of speed and sheer amount of data transferred. Plus, our network is expanding,” says Maddux. “We know that the Brocade NetIron XMR will be able to grow and stay in our network due to the Brocade technical roadmap. Four years from now we can still look at the Brocade NetIron XMR as a viable routing platform.”

As a networking solutions partner, Brocade continues to support Limelight’s innovative next-generation vision. The two companies are working together to advance the delivery of media-rich content in a Web 2.0 world.

“The speed of Brocade in delivering and improving new products reflects our goals as a service provider. Other network vendors develop platforms at their own speed and based on what they believe is important. Brocade builds its platforms based on customer feedback and market demands. No other networking company is more forward-looking and driven to create advanced, high-performance networking solutions.”

For more information, visit www.brocade.com.

Corporate Headquarters

San Jose, CA USA
T: +1-408-333-8000
info@brocade.com

European Headquarters

Geneva, Switzerland
T: +41-22-799-56-40
emea-info@brocade.com

Asia Pacific Headquarters

Singapore
T: +65-6538-4700
apac-info@brocade.com

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