Bytemobile manages mobile data traffic using IBM BladeCenter

Building solutions to optimize telecommunications network performance

Overview

The need

Bytemobile needed to provide growing numbers of users with reliable access to rich content and applications, as well as enable mobile operators to flexibly and efficiently manage network traffic.

The solution

The Bytemobile® Unison™ Platform leverages IBM BladeCenter® HT Chassis, IBM BladeCenter HS23 servers with intelligent Intel® Xeon® processors and IBM System Networking 10 GbE technology.

The benefit

IBM BladeCenter technologies offer the industry focus, flexibility and performance Bytemobile needs to build effective network traffic management solutions for mobile operators.

The mobile Internet is changing the way people work, live and play all over the world. In many countries, wireless networking isn't simply an alternate way to access the Internet—it's the only way to access it. Bytemobile, Inc. is a global leader in solutions for mobile network operators delivering video, web and multimedia content and applications. Their business is providing traffic management solutions that mobile operators need to deliver the best possible user experience.

Bytemobile's Unison Platform integrates the company's industry-leading video and web optimization software with the latest IBM BladeCenter technology. The result is a single solution that enables mobile operators to support millions of subscribers' reliable access to rich content and applications.

Pursuing performance gains that can keep pace with mobile Internet growth

Bytemobile has long relied on IBM BladeCenter to provide the hardware platform for its Unison Platform, beginning in the mid-2000s. Today, the company is looking at tremendous strides in performance and processing capabilities using the IBM BladeCenter HS23.

"With the next-generation HS23, we're seeing two to three times the performance we achieved with the prior-generation HS22, which had great performance in and of itself," says Chris Koopmans, chief operating officer of Bytemobile, Inc. "We're also doubling the network performance, thanks to the level of NIC integration on the HS23."

Koopmans also calculates that the HS23-based Unison solutions will be about 6,000 times more efficient than the very first deployment of a Bytemobile web optimization solution more than a decade ago.

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— Chris Koopmans, chief operating officer, Bytemobile, Inc.

byte mobile

"I'm comparing what we were able to process per rack unit of equipment in our first Sun SPARC-based deployment in 2001 with what's possible with the latest generation of IBM blade servers," he explains. "When we first moved from Sun SPARC to IBM, we got a performance boost of almost ten times. By working closely with IBM in the years since, we've been able to constantly push the envelope toward higher and higher levels of performance and efficiency."

These ongoing improvements are vital to keeping pace with the growth of the mobile Internet, according to Koopmans.

"I think you'll see about a 5,000 percent increase in mobile network traffic over the next five years," he says. "On many networks, we see video traffic doubling or tripling every year, and we need to be able to keep up with that."

The importance of Intel processing

The IBM BladeCenter HS23 blade server uses the latest generation of Intel Xeon processors to achieve the levels of performance Bytemobile requires to handle vast increases in mobile network traffic in general, and video traffic in particular.

"Intel processors now have more cores per processor, higher memory throughput and advanced graphics processing capabilities, which adds up to exactly what we need to process more and more video traffic," says Koopmans.

Relying on IBM for focus, flexibility and long-life solutions

Bytemobile has been building IBM-based solutions for telecommunications service providers since the mid-2000s. According to Koopmans, the company chose IBM for the company's telecommunications focus, its ability to provide the flexibility to meet a range of mobile operators' needs and its support for the long product lifecycles that telecommunications companies need.

Industry-specific focus

IBM is one of the only companies to offer a telecommunications-specific version of its blade server chassis, rather than expecting companies like Bytemobile to use the same enterprise chassis that non-telecom companies use.

Solution components

- IBM BladeCenter® HT Chassis
- IBM BladeCenter HS23
- IBM System Networking 10 GbE technology
- Intel® Xeon® processors
- Bytemobile® Unison™ Platform of video and web optimization solutions

Because the IBM enterprise chassis has been adapted for telecommunications, Bytemobile can take advantage of the volume and speed to market of an enterprise-level system, yet still meet industry-specific needs, such as compliance with NEBS standards for ruggedization, and the ability to operate on either AC or DC power.

"IBM's industry focus gives us the flexibility to meet the needs of a variety of carriers," says Koopmans. "For example, an operator might have multiple sites, some of which require AC power and some of which require DC power. To have one piece of equipment that will do whatever our customer needs it to do is key for us."

Support for long product lifecycles

A tremendous amount of cost and effort goes into porting Bytemobile's software onto a hardware solution and bringing that solution into a customer's network. That's why it is extremely important to have long-life-enabled products that customers can continue to buy over a long period.

"It's not unusual for our customers to run through a 12-month testing cycle with our solutions," says Koopmans. "Once they've done that, they don't want to have to move to a new blade immediately. They want to be able to continue to buy that same piece of equipment that they have tested over a long period while they start to move the new technology through a testing cycle."

Enabling success in the cloud

The newest challenge that Bytemobile is helping mobile operators address is the move toward the cloud, driven largely by the proliferation of mobile devices.

"Anybody who wants to provide an application today has to be able to do so in the cloud, because it's the only way to reach this growing subscriber base that just doesn't use PCs," explains Koopmans. "If all you provide is a piece of software to run on a PC, you're going to miss that base entirely."

As mobile devices drive the cloud and as the cloud drives traffic for mobile networks, mobile operators are positioned to play a key role in the future of cloud services. Bytemobile provides the solutions they need to manage network traffic in the cloud.

For more information

Contact your IBM representative or IBM Business Partner for more information on BladeCenter solutions, or visit us at:
ibm.com/systems/bladecenter/index.html

For more information about Bytemobile, visit: www.bytemobile.com

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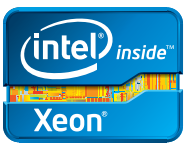

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