



“Our tier-one customers need to be able to architect high-throughput networks and they demand quality. We can’t afford to have a product deployed that doesn’t fulfill customer needs. The F5 product has been outstanding.”

Christian Gabetta
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byte  mobile

F5 and Bytemobile Join Forces to Help a Major Tier-One Mobile Network Operator Handle Explosive Traffic Growth

Industry

Telecommunications

Challenges

- Intelligently manage a high volume of mobile Internet traffic and rich content to ensure efficient use of network resources
- Drive up ARPU with new services that scale across mobile networks supporting millions of customers
- Avoid costly downtime
- Provide seamless interoperability with Bytemobile’s Unison™ Mobile Internet Platform

Solution

- F5 [VIPRION](#)® Application Delivery Controller
- F5 [Professional Services](#)

Benefits

- Fast, uninterrupted delivery of rich content to 100+ million subscribers
- Ability to extend capacity seamlessly and on-demand
- Integrated, quickly deployable solution to meet mobile network operators’ explosive traffic growth

Overview

Worldwide consumer demand for value-added data services is creating unparalleled revenue opportunities for mobile network operators (MNOs). Whether from Apple iPhones, USB dongles, mobile video, or other services, mobile Internet traffic is increasing at 10 to 15 percent per month on tier-one networks.

This enormous demand is creating network capacity and performance challenges. To continue to provide rich content to subscribers—without taxing network resources—more global MNOs are turning to Bytemobile, Inc. (www.bytemobile.com) for reliable, scalable solutions, and Bytemobile is turning to its partner, F5, for Application Delivery Networking support.

Bytemobile, a leading global provider of mobile Internet solutions for wireless network operators, has solutions deployed in the networks of 100 operators serving more than a billion total subscribers in 54 countries—including 12 of the world’s 15 largest tier-one carriers. F5 is the global leader in Application Delivery Networking, providing solutions that make applications secure, fast, and available for users. Together, the two companies have teamed to address the needs of one of

Bytemobile’s largest tier-one customers in Europe.

Proving superior performance

One of Bytemobile’s strategic and long-standing global tier-one MNO customers started using Bytemobile’s optimization platform in 2002, and later selected Bytemobile’s Unison Mobile Internet Platform as the consolidation node for its mobile Internet gateway. With more than 100 million subscribers, it was crucial that the MNO provide rich content delivery without disruption. To make the most of its available network bandwidth, the customer turned to Bytemobile for help. Bytemobile’s team knew that the F5 VIPRION system could meet the scalability and availability requirements of the Unison platform at every customer site, and they introduced F5 as part of their systems integration solution.

Bytemobile, F5, and a leading manufacturer of application servers conducted extensive capacity and functionality testing to validate the joint solution. “We wanted to give them solid evidence that the F5 solution in conjunction with our Unison architecture was the right one, so we invested a lot of effort to validate our assumptions,” said Christian Gabetta, Bytemobile’s Senior Technical Director. “We offered to showcase the solution to demonstrate the tremendous performance capabilities.”

What followed was a six-week lab exercise with both Bytemobile and F5 teams actively involved. The outcome of the testing was conclusive and irrefutable. “In that test, we deployed a true commercial network,” said Gabetta. “What was challenging was that the application server partner had to provide us with hardware and connectivity, and we had to work with a load generating company, and hire all the equipment.” The test demonstrated that the integrated solution presented by Bytemobile and F5 had the best capabilities to support the customer’s environment.

An integrated solution

Bytemobile selected F5 as a partner because of its specialized expertise in delivering high availability and high throughput for complex applications. F5 has a track record of successful deployments in very large-scale networks with traffic flowing through multiple data centers.

Bytemobile developed the Unison open architecture to unify and simplify networks with an intelligent and cost-effective platform. The Unison platform monitors all traffic and inspects packets just once. Installed in the core data path, it selectively applies IP services, while improving reliability and service quality. The platform supports all network technologies and mobile devices, resulting in an enhanced user experience, reduced churn and increased average revenue per user (ARPU). The Unison platform also supports the deployment and delivery of multiple integrated and interoperable applications for web browsing and media play, advertising, and application widgets on all mobile devices. These services are

strengthened by a foundation of smart optimization through data reduction and traffic control through intelligent service selection.

Bytemobile knew the F5 VIPRION system would meet the scalability and availability requirements of the Unison platform at its customer’s sites. As the industry’s first on-demand Application Delivery Controller (ADC), VIPRION scales seamlessly with an organization’s business needs without sacrificing manageability or simplicity. A big advantage is VIPRION’s performance blades, which can be transparently added on demand—without any disruption—as network environments and applications require increased processing power.

VIPRION features top-end ADC performance four times greater than that of any competitive product. Bytemobile integrates F5 BIG-IP and VIPRION solutions with other third-party components, such as industry-standard server platforms, operating systems, switches, and application software.

Adding capacity seamlessly

For the first several of the customer’s deployments, time was of the essence. “The mobile network operator was using another vendor’s load balancers and they were overstressed to capacity. The only way to mitigate the problem was to deploy another pair of load balancers in front and back—but that would have only given us another couple of months and we would have had to replace them with more powerful platforms,” explained Gabetta. “We were fighting against time.”

Once Bytemobile switched over to F5 VIPRION, the system was no longer overloaded. “Almost immediately, VIPRION was running at just 20 percent of capacity,” added Gabetta. “The customer was very pleased.” VIPRION’s blade architecture enables the MNO to extend capacity and performance as required to expand the system. “This is a huge value for our customer, because there is no configuration time and they don’t have to keep adding load balancers on the front and back ends,” he added. Additionally, operating costs are fixed because there are no extra parts to manage and maintain.

A win-win partnership

Bytemobile formed a partnership with F5 to continue delivering scalable and secure mobile Internet solutions to MNOs worldwide. The F5 product is very reliable,” said Gabetta. “For the early deployments, we used the support of the F5 Professional Services organization, which is fully trained and knows the products thoroughly. By using the F5 team, we could do faster deployments when we needed to.” Today Bytemobile consultants are fully qualified on F5 VIPRION technology.

According to Gabetta, the partnership with F5 is a win-win for MNOs. “Coming from the technical side, I’ve seen how the F5 pre-sales teams operate and are structured. The way we’ve worked together has been a success.”

He added, “The success we’ve had with F5 counts a lot, because our tier-one customers demand quality. We can’t afford to deploy a product that doesn’t fulfill customer needs. The F5 product has been outstanding.”

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