

PlusNet Pioneers Differentiated and Transparent Services in U.K.

Customer

PlusNet plc

Industry

Service Provider

Challenges

Deliver cost-competitive, differentiated, secure broadband services; offer innovative tiered pricing; ensure transparency; keep subscriber usage within contracted limits; and manage costs.

Solution

Install the Arbor eSeries solution for dynamic service and traffic control down to the individual subscriber level.

Results

Deployed a new tiered service with rate controls and quality of service (QoS) that helped nearly double the number of new broadband customers, increase the overall broadband customer base by 15 percent and grow revenues by 20 percent in three months—while deferring network capacity spending.

Future

Planning 4- and 8-Mbit/s offerings; exploring IPTV, video on demand and other services that require real-time control of QoS, performance consistency and customer transparency.

PlusNet plc, is a U.K.-based Internet Service Provider (ISP) with approximately 300,000 broadband subscribers. As in other markets, competing on price in the U.K. is particularly difficult due to regulation. And like other ISPs, PlusNet procures bandwidth through wholesale arrangements with the large regional carriers. "With the wholesale model, you need to control the bandwidth your customers use in order to manage your costs and remain price competitive," says Alistair Wyse, PlusNet's chief technology officer.

To meet these objectives, PlusNet needed to prevent individual consumers from degrading service to other subscribers via heavy downloads or bandwidth-heavy applications like peer-to-peer (P2P) and streaming video. Without a way to limit subscribers' bandwidth usage to their contracted rate, PlusNet would have to procure more capacity indefinitely—leading to increased costs and service prices. Instead, PlusNet began searching for a solution that provided the subscriber-level visibility to ensure that all subscribers operate within the conditions of their service level agreements. The solution also had to enable PlusNet to incorporate transparency as a key service component. "We don't expect customers to understand the economics of broadband," Wyse explains. "Therefore, it's very important that we explain to them how we manage our finite amount of bandwidth and what they can expect for performance."

Bandwidth Management for CapEx/OpEx Savings

PlusNet addressed its bandwidth issues by deploying the Arbor eSeries solution ("eSeries") for broadband service optimization. The ISP combined the eSeries solution with its existing Juniper ERX broadband remote access system. The eSeries solution connects to the ERX and applies IP service control to each subscriber DSL connection. It sets and enforces policies for maximum amounts of bandwidth on a per-subscriber, per-application and per-time basis. PlusNet administrators use the eSeries solution to centrally configure policies for subscribers on any eSeries switch in the PlusNet network.

These days, PlusNet can monitor traffic to determine application-specific, per-user bandwidth rates and usage consumption. PlusNet can classify traffic according to a special policy unique to each subscriber or subscriber group. The ISP can also reserve bandwidth for real-time sessions and use packet marking for downstream prioritization, depending on the service for which the subscriber has contracted.

By enabling total bandwidth management, the eSeries solution has greatly reduced PlusNet's investments in additional capacity and infrastructure—delivering near-immediate cost benefits. In the first year alone, PlusNet's bandwidth savings exceeded the amount of its initial equipment purchase. The ISP also avoided investing in a full STM-1 (155 Mbit/s) of additional network capacity by using the eSeries solution to manage its existing bandwidth. The solution's ability to limit P2P traffic and other bandwidth-intensive application also yields large cost savings.

"The judges agreed that PlusNet put their customers first with transparent usage allowances rather than vague Fair Usage Policies and their self-developed traffic management system. The judges also felt that PlusNet's one month contracts were very beneficial to consumers."



2008 ISPA Awards Best Consumer ISP Winner



Best Broadband Provider in the UK 2008, Broadband Choices



uSwitch.com Broadband Customer Satisfaction Survey Overall Winner, March 2008



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Bandwidth Management for Tiered Broadband Pricing Options

PlusNet launched Broadband Your Way, a multi-tiered service that allows customers to choose the best option for their Internet usage. These broadband offerings range from a £9.99 per month (about US\$20 or €13) package designed for basic Web browsing to a £19.99 per month (about US\$39 or €25) package designed for streaming, P2P and gaming applications. If a pre-packaged service doesn't fit, customers can elect to build their own custom service.

All this is accomplished using the eSeries solution for broadband service optimization. The eSeries solution performs deep packet inspection (DPI) to dynamically monitor traffic behavior by application and user-based policies set by the ISP. At any time, PlusNet can ascertain who is generating how much of a particular type of application traffic. New types of traffic to be recognized, such as new P2P applications, can be uploaded to the eSeries switches by "soft" application signatures in real-time as they become available. With the eSeries solution, PlusNet can tweak the speeds and bandwidth used by different traffic types on the service to ensure consistent quality for subscribers so that Broadband Your Way remains commercially sustainable.

Before installing the eSeries solution, PlusNet had no precise way of managing usage. "Bandwidth was somewhat available on a first-come, first-served basis," Wyse explains. "We offered no set usage limits for a flat price, but sometimes subscribers couldn't use the service as expected because of contention with high-bandwidth users. We wanted to offer choice and flexibility to customers and manage expectations as to what customers would experience with our services."

Free VoIP services are included with all PlusNet packages. The eSeries solution identifies, classifies and prioritizes VoIP and manages competing traffic so that voice can receive its requisite QoS end-to-end across the network.

Transparency with Customers is Critical to Success

"We've found that the best way to offer good services is by being totally transparent with customers," explains Wyse. To ensure transparency, PlusNet conducts two-way communication with customers. Using a portal, customers can see how they are using the PlusNet network, track their usage against their service plan, and get answers to technical or service-related questions. In addition, a PlusNet Web site "Community" provides customers with the latest news, polls, discussion forums, and PlusNet blog. The site also enables PlusNet to openly share information with customers regarding network usage statistics and bandwidth management techniques enabled by the eSeries solution. "We are convinced that transparency with our customers is a key component to the success and survival of our company," Wyse adds. "In fact, many of our most recent broadband ISP awards cited customer transparency and service as a major reason we won." Wyse concludes, "The Arbor eSeries solution allows us to keep a low operational headcount and cut down on our network operations costs while still delivering a high-quality service to end users. We've been able to gain predictability in terms of the amount of capacity we need to purchase, which enables us to manage our own costs. We feel that we're ahead of the curve."

About Arbor Networks

Arbor Networks is a leading provider of secure service control solutions for global business networks. Its customers include over 70 percent of the world's ISPs and many large enterprises. Arbor solutions deliver best-in-class network security and visibility, along with the power to improve profitability by deploying differentiated, revenue-generating services. By employing flow-based and deep packet inspection (DPI) technologies, Arbor solutions measure and protect the entire network—from the network core to the broadband edge. Arbor also maintains the world's first globally scoped threat analysis network—ATLAS—which uses technology embedded in the world's largest ISP networks to sense and report on comprehensive worldwide threat intelligence.