



BRIDGEWATER SYSTEMS AND ALLOT COMMUNICATIONS HELP **TOP-TIER SERVICE PROVIDER** TAKE CONTROL OF PEER-TO-PEER CHALLENGE



It's a problem familiar to most service providers today: a relatively small percentage of users monopolize bandwidth to download and share multimedia files, over-taxing the network, negatively impacting the experience of users, and causing carriers to incur transit charges as they search for faster downloads from other networks. In fact, some carriers claim that due to the popularity of peer-to-peer (P2P) applications, up to 60% of available bandwidth is being consumed by as little as 5% of users.

When it began encountering this significant challenge, one top-tier multiple dwelling unit (MDU) service provider, decided to act quickly.

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The company offers tiered high-speed Internet services and strives to guarantee a minimum level of bandwidth for its users. But with the network drain caused by P2P and the impact that was having on non-P2P users, the service provider was left with two choices for restoring its service levels and reducing operating expenses incurred from the extra stress on bandwidth. One option was to invest capital and operating expenses in building and maintaining more bandwidth in its network – a temporary fix that would simply give P2P users more bandwidth to monopolize. Its other option was to look for a way to more efficiently control and manage P2P and other bandwidth-intensive applications on its network.

The company chose the latter, and turned to Bridgewater Systems for a solution.

Already a user of key Bridgewater Systems' IP service fulfillment and assurance solutions, the service provider had worked closely with the Bridgewater Systems professional services group when first introducing

high-speed Internet service. In addition to providing authentication and revenue mediation capabilities at the core of the service provider's network, Bridgewater Systems had also developed an easy-to-use, self-provisioning solution with a web-based interface for the service provider's customers to sign up, maintain their account, and upgrade their service. This process was made available online in real-time, eliminating the need for the user to pick up a phone or the service provider to incur the cost of a single truck roll. Bridgewater Systems had also helped the service provider to overcome a major challenge with client software used for authentication. By migrating its users from Point-to-Point Protocol over Ethernet (PPPoE) access technology to Dynamic Host Configuration Protocol (DHCP), Bridgewater Systems enabled client-free authentication of users on the service provider's network.

During this time, Bridgewater Systems had recognized P2P bandwidth monopolization as a mounting challenge faced by Service Providers and had been developing a leading-edge solution for this crisis. As a result, when the call for help came from their MDU Service Provider customer, they were ready to respond.

“By controlling bandwidth dynamically, the service provider can offer heavy users more choice of services, immediately, while reducing their impact on the experience of others.”

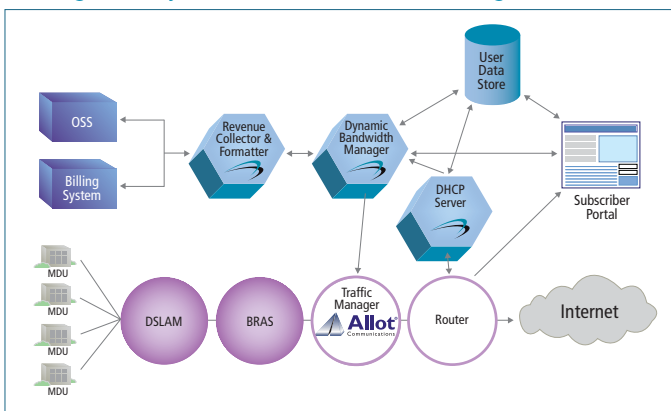
Bridgewater Systems' first step was to evaluate several leading traffic management vendors to identify a best-of-breed partner that could help provide the most complete solution to the customer's needs. Bridgewater Systems chose Allot Communications, which offers a broad range of traffic management solutions with a suite of hardware and software products to suit many network configurations. The NetEnforcer® family of

LAN appliances offer traffic management technology for QoS/SLA enforcement, real-time IP monitoring, IP accounting and load balancing. With its Layer 7 classification technology, the NetEnforcer can identify all P2P protocols and limit their use either on a global or per-subscriber basis.

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Confident in the synergy of the two solutions, Bridgewater Systems installed its new Dynamic Bandwidth Manager, along with Allot’s NetEnforcer traffic management product to identify different types of data traffic and dynamically control bandwidth by application, session and user.

Bridgewater Systems and Allot Bandwidth Management Solution



With Bridgewater Systems’ Dynamic Bandwidth Manager and IP Address Manager, the service provider can dynamically assign IP addresses that allow differentiated levels of bandwidth usage, based on the customer’s profile. If a customer upgrades his or her service via the secured online customer portal, the upgraded service is provisioned immediately to the NetEnforcer: the Dynamic Bandwidth Manager ensures the network delivers the appropriate service level based on their profile and/or the type of traffic – P2P or otherwise – that they generate.

“The customer saw an instant 90% drop in core router CPU capacity usage and a significant reduction in its operating expenses per MDU per month.”

The joint Bridgewater Systems and Allot solution lets the service provider identify and set real-time minimum and maximum limits on the bandwidth allocated for P2P and other application traffic, as well as collect usage information by subscriber, service or application for different billing scenarios. P2P traffic can also be limited on upstream connections only, to reduce the traffic generated by non-customers that are accessing one of the provider’s subscriber’s computers and exhaust the usually slower, shared, up-link with P2P traffic. It can also provide its subscribers with controls that let them dynamically boost their available bandwidth for a premium. In either scenario, the service provider reduces the negative impact on other network users without having to invest more capital to increase bandwidth in its network.

The solution also reduces P2P traffic transiting to other networks in search of downloads – keeping traffic at a set level and thereby avoiding transit charges.

By controlling bandwidth dynamically, the service provider can offer heavy users more choice of service plans immediately, while reducing their impact on the experience of others. As a result, the customer saw an instant 90% drop in core router CPU capacity usage and a significant reduction in its operating expenses per MDU per month, bringing it in line with its business plan of reducing operating and capital expenditures while improving the experience of its subscribers.

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