

Dyband Corporate Backgrounder

Dyband Corporation, headquartered in Ottawa, Ontario, Canada, is a provider of IP traffic management software and solutions for Internet service providers, application service providers, enterprise companies, government organizations, and educational institutions. Dyband enables its customers to dynamically control the bandwidth usage of individuals and groups by IP address and application, define and manage unlimited service levels, and monitor access services in real-time, while gathering historical data for analysis. Dyband's absolute control of bandwidth allows its customers to provide more consistent, reliable access services while eliminating the need to provision to peak bandwidth demand, thus reducing operating costs and improving profit margins.

Access Service Challenges

Challenges For Service Providers

Internet access service providers face many difficult challenges in delivering access services to their customers, including high operating costs, the costs of acquiring new customers, high churn rates, reliable service delivery, subscriber price sensitivity, competitive pressures on pricing and low profit margins.

One clear example of the problems ISPs face can be seen in how they currently provision and distribute bandwidth to their subscribers. ISPs must dramatically oversubscribe their Internet backbone connection to achieve profitability, and yet provide reliable, consistent service performance in order to attract and keep subscribers. Historically they have over-provisioned their networks to meet the peak bandwidth demands of subscribers. *(This is especially true in broadband environments such as xDSL, wireless and cable.)* However, it is cost-prohibitive to engineer networks to handle peak loads that occur for a few hours a day. It requires upgrades to network equipment and adds greater network complexity and cost. Simply adding bandwidth through additional Internet connections does not solve peak bandwidth constraint problems, although it has an immediate negative impact on a provider's profitability.

What ISPs need to meet their business and technical challenges is effective bandwidth management. Bandwidth management is one of the most important challenges facing service providers today, since it directly affects profit margins by impacting the cost of operations, customer satisfaction and market penetration. Effective bandwidth management solutions can improve the profit potential of an ISP's core business by increasing service revenues and controlling operating costs, while improving the consistency and reliability of their service.

Challenges For Enterprise Organizations

A typical enterprise network runs multiple applications and files across their LAN/WAN network at any one time. These applications compete for the same bandwidth-constrained pipe. For example, bandwidth intensive applications such as image transfers and streaming media compete with mission-critical applications like Oracle or SAP, while unsanctioned applications such as Napster and online shopping create even greater congestion. As congestion builds, the efficiency of the network breaks down and interaction between employees, partners and customers is compromised. Adding more bandwidth to solve network congestion problems, especially peak demand, is cost prohibitive. Over-provisioned networks are underutilized for a majority of the day, and without the proper monitoring and reporting tools, it is difficult for the network administrator to know when further upgrades will be necessary to handle peak loads.

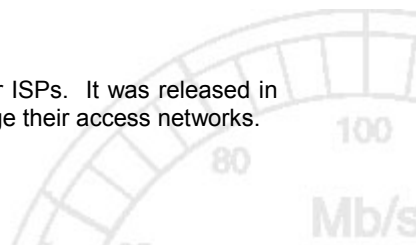
What is needed is not more bandwidth, but the dynamic management of existing bandwidth. Network administrators must be able to control each application, designating which traffic gets priority and the minimum allocation of bandwidth a particular application needs to run efficiently. In addition, they must see that less-critical applications are not starved for bandwidth.

The Solution: Dyband

Dyband has developed unique, versatile software for dynamically managing the bandwidth problems of service providers and enterprise organizations alike.

Dyband 1.2

Dyband version 1.2, the result of a multi-million dollar R&D effort, was specifically designed for ISPs. It was released in 2000 and is being used by wireline, wireless and satellite service providers, worldwide, to manage their access networks.



Dyband version 1.2:

- Intelligently manages bandwidth consumption (*both aggregate and individual usage*), increasing the number of subscribers that can be supported on the current Internet connection by up to 20%;
- Enables an unlimited number of service levels at distinct price points to meet the budgets and interests of customers, increasing revenue by up to 30%;
- Improves service management through real-time monitoring and historical reporting, facilitating, capacity analysis, timely provisioning, and usage-based billing;
- Reduces operational complexity through automated configuration and administration; and
- Manages all types of transport technologies from a single, easy-to-use graphical interface, including wireline (e.g. 56K, xDSL, leased lines) wireless, cable, satellite and Ethernet.

But the real value of Dyband lies in its impact on a service provider's bottom line. Dyband can increase service revenues, decrease operating costs and improve margins, all while delivering more consistent, reliable service to customers.

Our customers place a high value on the Dyband 1.2 product, comparing it in worth to their core router. And, studies have shown that most customers recoup their investment in Dyband within three to six months.

Dyband 2.0

Dyband version 2.0 offers additional features over 1.2 such as: 1) the management of half duplex and multi-homed networks; 2) expanded topology management; 3) fault tolerance; 4) autodiscovery of managed network points via Radius; and 5) profile push, which allows user profiles and service tier settings to be centrally managed and pushed to an unlimited number of Dyband units in a large distributed network. Version 2.0 was released in June 2001.

Dyband Future Developments

Dyband will be adding bandwidth controls based on specific protocols to manage application traffic, so enterprise organizations, educational institutions and government agencies will be able to get the business and technical benefits from Dyband software that service providers are now enjoying.

Dyband runs on industry-standard hardware and software platforms, including Microsoft NT, Windows 2000 and LINUX operating systems and will be ported to Solaris soon.

Dyband vs. the Competition

As a scaleable software product, Dyband enjoys several key competitive advantages over hardware-based products. Dyband can easily take advantage of the latest developments in interface technology, including Packet-over-Sonet and Gigabit Ethernet, and can offer a broad range of configurations that closely match the needs of service providers and enterprise organizations.

Dyband is beating and unseating competitive products in one-on-one sales comparisons, because of its unique capabilities. These include its ability to:

- Manage 50,000 individual subscribers and/or groups, and 100 Mbps of bandwidth per unit;
- Manage bandwidth by IP address, in static environments or in dynamically-addressed environments through DHCP, LDAP and RADIUS;
- Provide real-time visibility into the bandwidth usage of individual subscribers or groups; and
- Manage multi-homed and half-duplex networks.

Dyband Management

The Dyband management team possesses broad industry experience, including experience in the software, networking and service provider sectors with such companies as Cisco Systems, FORE Systems (now Marconi), Newbridge Networks (now Alcatel), Cheyenne Software, PSINet, iSTAR Internet, Corel Corporation, CrossKeys Systems (now Orchestream) and Bell Canada.

For further information on Dyband, and how it can benefit your firm, contact us at

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