

## Frequently Asked Questions

### Features and Benefits

#### What is Dyband Intelligent IP Traffic Management?

Dyband IP Traffic Management is a scalable software solution that comprises intelligent bandwidth management, SLA definition and management, and performance "visibility" tools. The software can be integrated with billing and other OSS applications via a standard database interface. Together, these capabilities allow Internet service providers to improve the profit potential of their core business by increasing service revenues and reducing operational costs, while delivering more consistent, reliable service to customers.

#### Who can benefit from Dyband's Intelligent IP Traffic Management?

Any narrowband or broadband service provider that provides services directly to residential customers, home offices and/or businesses can benefit from using Dyband to manage their access services. This includes wireline (56K, leased-line, xDSL), wireless, cable, and satellite service providers.

Dyband offers special benefits to multi-access ISPs -- those service providers that deliver access services via multiple transport mediums (e.g., 56K, xDSL, wireless, leased-line and/or Ethernet), since Dyband can manage bandwidth and service levels across all of these transport technologies from a single interface.

#### How can Dyband increase service revenues?

- Dyband enables service providers to increase their revenues up to 30% by offering unlimited service levels at distinct price points (e.g., casual browsing, heavy duty surfing, SOHO, priority business levels, etc.) without adding additional bandwidth.
- Dyband allows service providers to easily identify "top" bandwidth users, facilitating "up-sell" opportunities via inbound and outbound telesales initiatives.

#### How can Dyband decrease service costs?

- Dyband enables service providers to add up to 20% more subscribers on their current Internet connections.
- Dyband eliminates the need to overprovision the network to meet peak bandwidth demands.
- Dyband dramatically improves service quality to subscribers, reducing customer churn.
- Dyband simplifies and automates service configuration and administration and significantly reduces the personnel needed to provision and maintain the network.
- Dyband allow service providers to accurately forecast network costs and execute well-timed bandwidth provisioning.

#### How can Dyband improve Internet access services for subscribers?

Dyband gives service providers total control of bandwidth. It allows them to measure and control the bandwidth use of individuals and groups by IP address. Dyband prevents monopolization of bandwidth by aggressive users and guarantees that no user is "starved" for bandwidth. It minimizes periods of network congestion, reduces packet loss, and eliminates congestion-related outages. As a result, subscribers get what they pay for -- consistent, reliable service.



## Product

### **How does Dyband's Intelligent IP Traffic Management differ from traditional bandwidth management?**

Traditional bandwidth management employs only basic methods -- static rate limits, simple priorities, or traffic type -- to manage the bandwidth usage of subscribers, as a group, or manage applications. These methods are ineffective for managing Internet access services, since traffic patterns are extremely bursty and vary widely according to individual usage patterns. Rate caps and simple priorities do not eliminate the extreme congestion or packet loss associated with packet floods -- the result of multiple users downloading or uploading at the same time. Dyband automatically responds in real time to changing traffic conditions, anticipating congestion and adjusting rate and priority controls, so that no user is "starved" for bandwidth and all users receive consistent, reliable service.

### **Isn't bandwidth going to be cheap? Why do I need to manage it?**

The demand for bandwidth is growing at an enormous rate. New applications that require huge amounts of bandwidth are being developed and released monthly. As these bandwidth-hungry applications run over access networks, they increase traffic congestion and packet loss problems. Regardless of how much bandwidth ISPs provide on their backbone connections, these problems will exist. Over-provisioning bandwidth to solve the problems of congestion and packet loss wastes money and is not a sustainable business model, especially in today's business environment.

### **Why is bandwidth management based on traffic type inappropriate for managing Internet access services?**

Some bandwidth management products identify, prioritize, hinder and obstruct IP traffic based on traffic type. As a result, some traffic types receive the highest priority and purposely starve lower priority traffic (e.g., video conferencing is given priority over e-mail). Subscribers pay for, and will demand, equal access to bandwidth according to their level of service, regardless of whether they are browsing, watching video, or sending/receiving e-mail. For this reason, prioritizing traffic based on traffic type is not a workable solution for Internet access services.

### **How is Dyband configured?**

Dyband is a scaleable software solution that runs on industry standard hardware platforms using network interfaces ranging from 10 Mbps to 1 Gbps. Dyband version 2.0 operates on Windows NT, Windows 2000 or Red Hat Linux operating systems. Support for Solaris will be available in the future.

### **Can Dyband work in combination with my current network management system?**

Dyband provides access to essential operational status information via SNMP, an industry-standard network management protocol. Consequently, existing network management platforms such as OpenView, SunNet Manager, and Unicenter TNG can easily monitor Dyband.

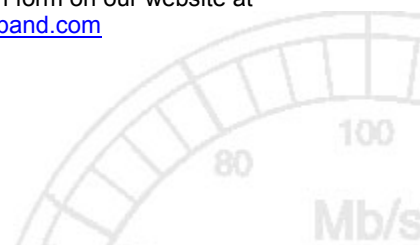
## Demonstration

### **Why should I try Dyband?**

Dyband solves many of the business and technical problems that service providers face today. From a business perspective, Dyband can increase service revenue, decrease operating costs, improve service margins and reduce churn. From a technical standpoint, Dyband allows you to deliver consistent, reliable service to subscribers, control aggressive users, minimize network congestion, reduce packet loss and eliminate congestion-related outages. And with Dyband, you never have to provision the network to meet unrestrained bandwidth demand again, because Dyband gives you total control of bandwidth, so you regulate peak bandwidth demand.

### **How can I get a better look at Dyband in action?**

You can get a trial version of Dyband's full capabilities by filling out the Request for Information form on our website at [www.dyband.com/contact/rfi.htm](http://www.dyband.com/contact/rfi.htm) or view a flash demo of Dyband from our website at [www.dyband.com](http://www.dyband.com)



## Purchase and Support

### Where can I buy Dyband?

Dyband is distributed through value added resellers, systems integrators and other distribution partners. Please contact us at [sales@dyband.com](mailto:sales@dyband.com) for information on purchase options.

### What is the cost of Dyband?

Dyband's pricing is based on total bandwidth managed. The list price ranges from \$500 for 128 Kbps to \$1,800 for 1 Mbp to \$30,000 for 100 Mbps of managed bandwidth. Upgrades are available to meet the needs of growing access services.

### My temporary license has expired. How do I obtain the Temporary Code required to purchase a License Update Code?

The temporary license created during installation expires after 30 days. After that time, traffic will continue to pass through the system, but it will not be shaped. A permanent license can be acquired as follows: Windows

1. Launch Event Viewer.
2. Windows NT: From the Log menu, select Application; Windows 2000: in the left pane, select Application Log.
3. Double-click on the most recent Shaper event message that has an Event ID of 9 or 12, and write down the code in that message.
4. Contact your software supplier (or our sales office) with the code, and obtain a License Update Code by purchasing a license of the software.
5. Run the license update utility (accessed through Start -> Programs -> Dyband -> Shaper License) using the provided License Update Code.

Please note: Prior to version 2.0, the utility is accessed through Start -> Programs -> *CrossKeys Dyband* -> Shaper License.

Linux

1. Open /var/log/messages.
2. Find the most recent event message that has an Event ID of 9 or 12, and write down the code in the message.
3. Contact your software supplier with this code, and obtain a License Update Code.
4. Execute the license update utility by entering # shaperlicense
5. Enter the License Update Code provided by your software supplier. The Updated License Information will be displayed.

### What kind of Customer Support can I obtain for Dyband?

Our customer support program is outlined in the Support and Services section of our website. If you have specific questions, send us an email at [support@dyband.com](mailto:support@dyband.com).

**For further information on Dyband, and how it can benefit your firm, contact us at**  
[sales@dyband.com](mailto:sales@dyband.com)  
**or visit us at**  
[www.dyband.com](http://www.dyband.com)

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