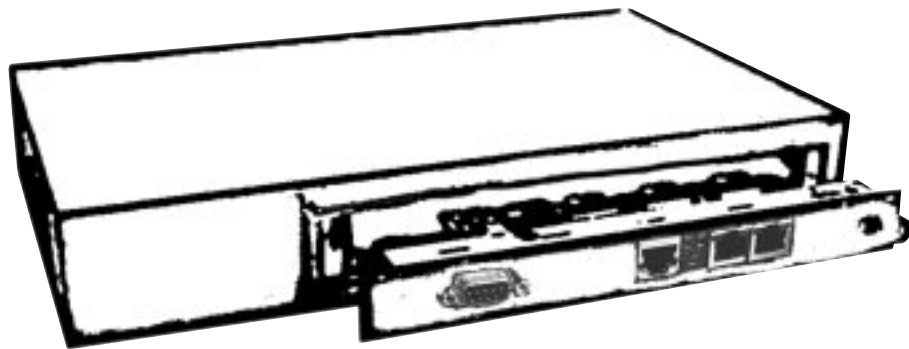# BLACK BOX®
NETWORK SERVICES

Bandwith Manager

Key Features

Maximizes ISP Profitability
- Control the amount of bandwidth customers can use, and charge accordingly
- Differentiate service levels

Easily manages bandwidth
- Bi-directional control up to 10 Mbps in 1 Bps increments
- Installs in minutes and link speeds can be throttled "on-the-fly"

Meets various installation and application requirements
- Module installs in any iMediaCenter chassis
- Standalone, table-top unit for use where space is limited

Easy to configure and manage with GUI-based iView
- Up and running in less than 5 minutes
- Receive vital traffic and health information, as well as notification if problems should occur

With Internet usage steadily growing, the ability to easily and inexpensively allocate and control the amount of available bandwidth is a key issue in an LAN/WAN environment. The only solutions that have been available include devices such as routers and traffic shapers that often come with more features than are necessary, are complex to configure, and include high price tags.

BandwidthManager provides affordable LAN/WAN bandwidth control to ISPs, web hosting and server colocation providers.
BandwidthManager™ is a low-cost, easy-to-use connectivity device that enables service providers to easily set and control bi-directional bandwidth in 1 bps increments up to 10 Mbps. With this device, bandwidth can be tailored to meet individual user requirements — customers only consume the bandwidth they need, and they pay accordingly. BandwidthManager is especially beneficial for ISPs and hosted application providers who offer multiple, differentiated levels of service.

Typical Applications
Web Hosting and Server Colocation — Many companies today choose to place their Internet servers at hosting/colocation sites run by major ISP/infra-structure companies rather than in their own offices. These providers offer various services such as 24 hour maintenance, enhanced firewall/security features, and backup and disaster recovery.
BandwidthManager provides colocators the ability to control bandwidth to hosted servers on their own Intranet. Some users, such as e-commerce businesses, demand large amounts of reliable bandwidth while other users require substantially less. The service provider installs a BandwidthManager for each colocated server and sets a specific bandwidth for each customer (i.e. T1, 512 Kbps, etc.).
Service providers may also want to limit the speed at which one or more customers download data to prevent overusage or "bandwidth hogging". This is easily accomplished using BandwidthManager's bi-directional

bandwidth control.

Web Site Development
Today's web site development is often done in high-speed environments but sites are accessed in the dial-up world. BandwidthManager can be used to simulate WAN link speed during web site development. Install a standalone BandwidthManager between the test server and workstation to help the QA process by simulating, for example, 28.8 Kbps download speed.

Metropolitan Fiber Ring
Since Ethernet can now be viewed as a MAN/WAN protocol, many providers are offering Internet connectivity via single-mode fiber (SMF) within their MAN or "City Net" envi-ronment. Single-mode fiber supports potentially limitless bandwidth and greater distances, but the provider's backbone may become swamped with traffic. Designing and implementing a diffe-rentiated pricing model can be challen-ging. By installing BandwidthManagers at access points, the infrastructure pro-

vider can adjust individual customer bandwidth and thus offer a tiered pricing plan based on common WAN speeds (e.g. low speed leased line/fractional T1, E1, SDSL, VDSL, etc.) rather than allocating the full bandwidth (10 Mbps).

Easy Configuration and

Management with GUI-Base iView
BandwidthManager is easy to configure with the GUI-based iView SNMP management application software, or with any other SNMP application such as HP OpenView™. Within five minutes a user can configure BandwidthManager for bandwidth control by simply dialing-

in the desired amount. LAN or WAN link speeds can then be throttled on the fly as customer requirements change. iView also provides operational and system health information to help keep networks running in peak condition. iView runs standalone on Windows™ NT4/95/98/2000, or as a plug-in to HP OpenView on Solaris™, Windows NT

and HP-UX™ network operating systems. For easy field installation, bandwidth can also be allocated by connecting a PC running a terminal emulator to the console port of Bandwidth Manager. Access to console configuration can also be password protected.

Specifications

BandwidthManager is a two port, 10 Mbps Ethernet device (with an additional port for configuration) that offers unidirectional or bi-directional bandwidth control. BandwidthManager is available as a standalone, table-top unit with AC power or as a module that installs in a variety of modular iMediaCenter Series

chassis — from a 2-slot, table-top version to an 18-slot, rackmountable chassis with redundant AC or DC power. BandwidthManager includes:
- **Ports A & B —** IEEE 802.3 10Base-T, RJ-45 connector; Half/Full-Duplex operation
- **Console Port —** DB-9 serial

connection
- **LEDs —** Link, RCV, XMT, HDX/FDX
- **Bandwidth Settings —** 64 Bps to 10,000,000 Bps
- **Bandwidth Setting Accuracy —** +0% / -5%

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