

# StreamDæmon

## Data Flow Controller with Rule-Based Rate Limitation



### Customize data streams for maximum flexibility and traffic engineering

- ◆ Include/exclude traffic based on Layer-3 and Layer-4 Protocols

### Change bandwidth allocation in seconds

- ◆ Set bandwidth based on IP address or TCP socket
- ◆ Bandwidth can be remotely set via SNMP for different data flows in 1 Kbps increments

### Easy to configure and manage with GUI-based iView

- ◆ Define and change streams and and receive vital health information and notification should problems occur

### Meets a variety of installation requirements

- ◆ Available as a standalone model or a module that installs in PowerChassis Series
- ◆ Available with SFF fiber connectors for fiber port

Bandwidth rate limitation and IP traffic shaping is becoming increasingly important for enterprises, ISPs, ASPs and web hosting companies who wish to utilize available bandwidth more efficiently. The ability to apply rate limitation and priority based on user IP address as well as UDP/TCP traffic type is highly beneficial in many applications. For example, in a multi-user LAN/WAN environment bandwidth may be allocated to high-priority user groups and applications, while rate limiting HTTP/web traffic and blocking certain IP addresses entirely.

### Offering easy packet classification, rate limiting and IP traffic shaping, StreamDæmon enables you to control how, when and where network data traffic flows.

StreamDæmon is a five port 10/100 Ethernet device that performs packet classification and rate limitation based on Network and Transport Layer protocols. Each of the five RJ-45 ports can be configured as in/out (ingress/egress) ports as required by the application. StreamDæmon operates based on logical traffic streams between its ports. Each stream has rules that are defined according to various classification parameters— for example, inclusion or exclusion of packets can be based on IP source or destination address ranges and TCP port numbers. Each stream has a rate limit applied to it, and packets within the stream may be prioritized for egress.

### About Rate Limitation and Bandwidth Control

StreamDæmon features IMC Networks' Rate Limitation technology which ensures a user or an application can not consume more bandwidth than the assigned rate limit allows. Most other traffic shaping devices are designed to guarantee a minimum bandwidth; thus they are not suitable for typical ISP applications that call for rate limiting. StreamDæmon guarantees a maximum bandwidth by applying rate limits to users and/or applications.

IMC Networks' Rate Limitation technology controls data throughput with a fine granularity; bandwidth can be allocated in 1 Kbps increments up to a total bandwidth of 100 Mbps. StreamDæmon also has bi-directional bandwidth control which is beneficial in assigning different rates for the customer's incoming and outgoing data (i.e., 1.5 Mbps outgoing/512Kbps incoming, 5 Mbps outgoing/2 Mbps incoming, etc.). Users can expect to maintain data throughput within -3% of settings. You can easily increase or decrease the maximum amount available to each stream as demands change.

### Customize Data Streams

StreamDæmon provides unprecedented flexibility for defining/customizing data streams. Defining a stream is easy: specify the In port and Out port, enter desired bandwidth and define a set of rules. You can define up to 42 streams with as many as 30 options each. Typically, there will be a minimum of two streams per customer/user in order to define traffic shaping in both directions (i.e. ingress/egress). You can also define two streams identically with the exception that one of the streams gives certain IP addresses a higher priority and/or more bandwidth.



Making Your NetWork Better

## SNMP Management

SNMP management, including remote management capability, is crucial for ISPs that must monitor network devices as well as change customer settings and allocate bandwidth "on-the-fly" when requirements change. By installing StreamDæmon modules into the *PowerChassis/113*, an ISP can easily monitor and manage numerous customers from its central office.

SNMP management can be enabled on any port on *StreamDæmon*. This feature is beneficial for ISPs that have more than one branch office and want to monitor/manage from each location. In addition, by separating management traffic onto a specific port, you can ensure that users cannot manage the device.

## Easy Configuration and Management with GUI-Based iView<sup>2</sup>

Unlike many other traffic shaping devices that are difficult to configure, *StreamDæmon* is easy to configure with user-friendly, GUI-based *iView<sup>2</sup>* SNMP management application software, or with any other SNMP application such as HP OpenView<sup>TM</sup>. The device administrator can easily configure data streams and prioritize traffic as well as specify bandwidth.

Functionality and health-monitoring features such as viewing packets transmitted/received and viewing CRC errors are also integrated into *StreamDæmon*. This allows ISPs, for example, to monitor network performance, quickly troubleshoot problems, and guarantee quality service to their customers.

*iView<sup>2</sup>* runs standalone on Windows<sup>TM</sup> NT4/2000/XP, or as a plug-in to HP OpenView on Windows or Solaris<sup>TM</sup>. For users of Windows 98 and other operating systems, a Java version is also available.

## Technical Specifications

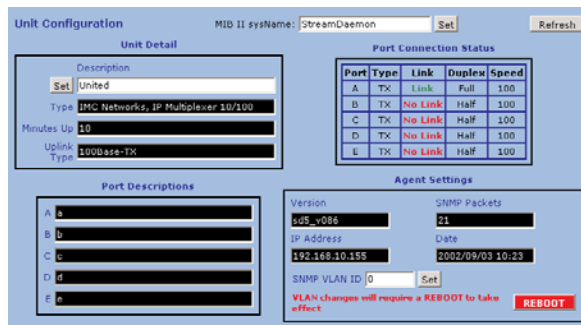
*StreamDæmon* is available preconfigured or as a module that installs in any *PowerChassis/101* or *PowerChassis/113*. For information on the *PowerChassis Series* please refer to: [www.imcnetworks.com/products/powerchassis.asp](http://www.imcnetworks.com/products/powerchassis.asp)

*StreamDæmon* is compliant with the following:

- ▶ IEEE 802.3 10Base-T and/or 100Base-TX
- ▶ IEEE 802.3z 100Base-FX

*StreamDæmon* includes:

- ▶ Data Ports — Five 10/100 twisted pair ports with RJ-45 connectors OR four 10/100 twisted pair ports with RJ-45 connectors and one 100Base-FX port with one MT-RJ or LC connector
- ▶ Console Port — This port allows for initial settings to be made via a standard DB-9 serial connection
- ▶ LEDs — Link, HDX/FDX, XMT/RCV, speed and enabled/disabled for each port



## Ordering Information

56-14502	StreamDæmon Module, TX/5
56-14504-MT	StreamDæmon Module, TX/4+FX-MM1300-MT
56-14507-LC	StreamDæmon Module, TX/4+FX-SM1310/LONG-LC
56-14508-LC	StreamDæmon Module, TX/4+FX-SM1550/LONG-LC



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