

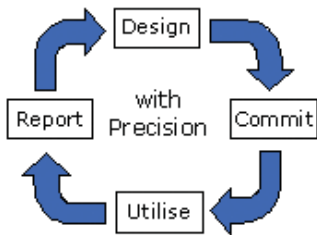
Exbander Precision EP60000



Consolidated network traffic optimisation, reporting and management solution for enterprises.

In a converging world the LAN/WAN link is an increasingly vital business enabler. More than ever enterprises need to derive flexibility and consistency from the performance of their network asset. Exbander is the tool that delivers the network performance to match the need - today and in the future. Exbander provides control of the link traffic ensuring that any business is able to regulate the way applications, users and devices utilise its network infrastructure.

The potential and the value of the asset are realised when the business designs and then commits valuable network resources to applications and users that are mission critical. Exbander monitors, controls and reports how bandwidth is used – ensuring that the LAN/WAN utilisation is designed to fit the requirements of the business.



Bandwidth is directed and network resources are delivered to business critical events and devices.

Business operations are protected from the impact of random network events.

Enterprise efficiency is increased by guaranteeing fast resource access.

“ We have selected the Exbander Precision EP60000 as a primary investigative tool for fraud detection and anomaly detection on our SIP and H.323 VoIP systems. ”

Norbet Spekking UGC

Design

Exbander identifies all traffic flows traversing the link. The observation process, via the flow viewer feature, allows IT personnel to make decisions about the traffic’s importance and with this information, Exbander enables traffic flows to be designed and defined to suit the exact needs of the business. Exbander’s unique bandwidth design capability ensures that the performance of the physical infrastructure is maximised by creating rules for all traffic flows.

Commit

Rules for each flow can be easily created committing the bandwidth resource specifically to suit the flow’s relevance to the business. The flow can be a single stream, or one or more groups of streams defined by application type, user type or other criteria. Exbander allows business critical traffic to be configured to receive its bandwidth as and when it is needed, and ensures that the non-critical traffic receives its bandwidth when capacity on the link is available. Designed and committed bandwidth enforces the policies ensuring that the resource is used to deliver its intended function at all times.

Utilise

The link utilisation is maximised because the network resources are always delivered to their target. Random network events are managed so that they do not impact the committed traffic. Link resources that have been designed for specific traffic, such as VoIP or Citrix, are only affected in the way that they are designed to be. If the configured resources are not being utilised concurrently, they can be “borrowed” by other traffic so that resources are not wasted. Exbander’s control ensures the best utilisation of the network for the business.

Report

Exbander’s comprehensive monitoring and statistics recording feature provides a powerful and flexible basis for monitoring and reporting the network’s performance. Exbander can be installed initially as a monitoring device, allowing the reported traffic data to be used to design and configure the flows to bring order to the business network.

Expander EP60000 - Features

Active Flows

The Active Flows screen enables snapshot views of the flows to be taken. This feature provides detailed views about the construction and nature of each flow traversing the network link.

Further information is shown for the packet count and total bytes for individual flows as well as statistics for the flows. Data regarding the flows according to rules, MAC address, IP address, ports and Layer7 application are shown in tabular, pie-chart and bar chart formats.



Diagram 1 - Active Flow

Rules

The Rules Interfaces enable the creation and management of the rules that will be used to control the traffic flows. Interfaces include:

- Pie chart interface allowing bandwidth allocation segments to be easily and quickly created.
- Tabular views summarising the rules.

Rules can be created, edited and deleted in each of the views. The Pie chart graphical views show the allocated rates for each rule as filled segments, with relative proportions reflecting the relative rates of the rules. Policy setup is achieved in real time by clicking on the segment(s) and stretching each to the required level.

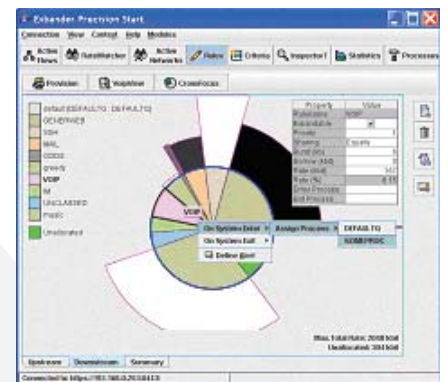


Diagram 1 - Rules

The Rate Watcher

The Rate Watcher allows views of the flow rates for each rule compared with the committed rate.

The Rate Tracker also provides monitoring of the rate of flows, governed by a particular rule as it varies over time.

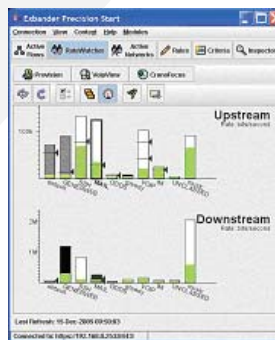


Diagram 1 - Rate Watcher

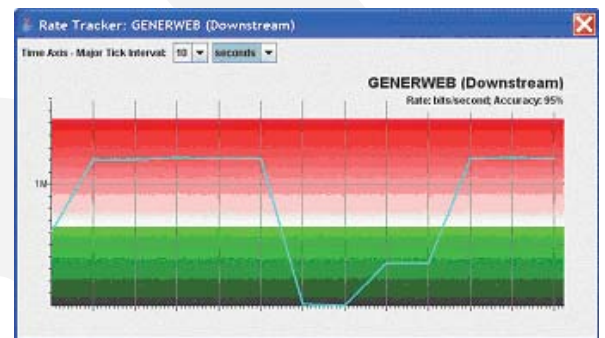


Diagram 2 - Rate Watcher

Inspector 7

Inspector7 enables the network traffic flows to be monitored, with classification by the related Layer 7 application. Inspector7 gives full control over which applications to monitor. Application related flows can be assigned to a particular rule or the traffic flow to that application can be blocked entirely.

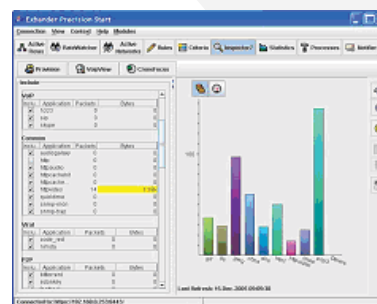


Diagram 1 - Inspector 7

Expander provides Traffic shaping, Routing and Load Balancing and WAN Acceleration solutions for single and multiple site installations.

Product Sheet
Specification – EP60000

SHAPING	
IP Flows	700,000
Shaping circuits (Switches)	1 (+ 3 optional)
Shaping rate – Total throughput (in and out)	155Mb/s, 1,000 Mb/s
Maximum Static Partitions	2,048
Maximum Dynamic Partitions	10,024/switch
Maximum IP Hosts	224,000
CONFIGURATION	
Precision Start Application	Yes
External LCD (+Keypad)	Yes
POLICY SOURCE	
Local Policy Configuration	Yes
Single Policy Configuration Screen	Yes
SNMP	
ACCOUNTING	
SQL Accounting	Yes
SNMP Export	Yes
TRAFFIC CLASSIFICATION (PER FLOW)	
IP address/range/subnet/MAC address and port	Yes
Network protocols TCP/UDP/ICMP/IGMP	Yes
DNS for ingress or egress traffic	Yes
NetBIOS interface allows active network inspection for business critical users, work groups, work domains and work stations.	Yes
Administrator flow definition, combines multiple packet characteristics to define flow e.g. TTL, ToS, Packet length, Protocol, Ports	Yes
IP/MAC Address and port	Yes
ISL/802.1q Classification	Yes
DiffServ/ToS	Yes
HTTP URL	Yes
Application protocol monitoring/control (Layer 7)	Yes
User bandwidth control for VPN clients	Yes
Hierarchy of policy rules - outbound & inbound traffic management	Yes
Minimum/maximum/borrow bandwidth enforcement per flow	Yes
Levels of priorities	Yes
Per flow guaranteed bandwidth, burst rate	Yes
Fairness between traffic flows – users - applications	Yes
PACKET SHAPING	
Admission Control (ACL)	Yes
TCP & UDP Rate control	Yes
DiffServ/ToS/CoS Marking	Yes
Proactive TCP Flow Control	Yes
Packet Queuing control	Yes
Flow based traffic control	Yes
Fairness of equal flows	Yes
Per class bandwidth limits	Yes
Per class Priority queuing	Yes
Relative Priority Weighting	Yes
Dynamic Host Limits	Yes
Connection number limits	Yes
Bandwidth “borrowing”	Yes
MONITORING	
Reports	Yes
Top Clients/Servers	Yes
Top Applications	Yes
Total Bandwidth utilisation	Yes
Historical Data Store	Yes
Slowest Clients/Servers	Yes
Top Traffic Classes/Utilisation	Yes
Dropped Packets/Efficiency	Yes
Response times	Yes
TCP Connection Metrics	Yes

Product Sheet
RELIABILITY

Redundant support unit	Yes
Automatic layer 1 bypass	Yes
Bypass on non-fatal error	Yes

ADDITIONAL

Stream based compression	Yes
Exbander MAS compatible	Yes

INTERFACES

Fast Ethernet – Copper	Yes
Gigabit Ethernet – Copper	Yes
Gigabit Ethernet – Fibre	Yes (Optional)
Fast Ethernet Management	Yes
Console – DB – 9	Yes

PHYSICAL

19" Rack Mountable	2u
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HARDWARE SPECIFICATION

Power	Dual 110-240 Volt Auto Switching (internal)
Operating Environment	Temperature: 5 to 40°C (67 to 130°F) Humidity 20% to 90% RH
Certifications	FCC, UL, CE
Dimensions	431mm (W) x 392.7mm (D) x 88mm (H) 16.97" (W) x 15.45" (D) x 3.46" (H)
PCI Expansion	One PCI-X exp. slot on-board support 3.3V/5V
Storage Device	3.5" HDD & Compact Flash DOM
Serial Console Port	N/A
Weight	Gross: 18.5kg (40.75 lbs); Net: 12.5kg (27.53 lbs)
LCD Panel	2 X 16 Characters. LCD Module with 4 buttons
Packing Dimensions	22.4"(W) x 23.4"(D) x 9.4"(H)
Ethernet Port	3 x Gigabit Ethernet Ports 4 X Gigabit Ethernet ports Active Network Bypass
LEDs	LED indicators for power status, storage access

Ordering Information

PRODUCT NAME	DESCRIPTION	PARTCODE
EP60000 Chassis	EP60000 Chassis including 155Mb throughput license (Software License Sold Separately)	EP60000
EP60000 Software License	12 month Software License (if a Silver or Gold Support Package is purchased, this is not required)	EP60000SL
Throughput License (1GB)	1GB Throughput License	GIGABWALIC
Silver Support EP60000 (155)	12 month Silver Support for EP60000 with 155Mb throughput (inc 12 month Software License)	SISUP-155-0000
Silver Support EP60000 (1GB)	12 month Silver Support for EP60000 with 1GB throughput (inc 12 month Software License)	SISUP-1000-0000
Gold Support EP60000 (155)	12 month Gold Support for EP60000 with 155Mb throughput (inc 12 month Software License)	GOSUP-155-0000
Gold Support EP60000 (1GB)	12 month Gold Support for EP60000 with 1GB throughput (inc 12 month Software License)	GOSUP-1000-0000
Extended Warranty EP60000	Hardware Warranty Extension from 12 to 36 Months	EXTWARREP60000
IMView	IMView Software Module	IMV60000
VoIPView	VoIPView Software Module	VOV60000
WAN Acceleration	WAN Acceleration Module	WAC60000