

STREAMGROOMER DISTRIBUTION LINE

BENEFITS

ADAPT AUTOMATICALLY TO USER BEHAVIOR

Streamcore's exclusive technology adapts dynamically to variations in application behavior to ensure unequalled traffic control. The StreamGroomer Distribution line thereby guarantees performance adapted to the requirements of all users, whether on large intranets, extranets, or roaming accesses.

SIMPLIFY THE OPERATIONAL PROCESSES

Centralization of monitoring and operation tasks makes the Help Desk more reactive and more efficient. Automation of active management functions guarantees immediate results and productivity gains: automatic acceleration of critical interactive traffic (AS400, Thin Client, ERP, etc.) as soon as equipment is activated.

REDUCE COSTS

The flexibility of Streamcore solutions maximizes the return on investment by allowing a progressive, targeted approach. The network investments are optimized, because they are adapted to true application requirements. The additional capacity (compression) benefits strategic business applications directly, removing the need for recurrent bandwidth increases.

CONTROL GLOBAL PERFORMANCE

The centralized monitoring & reporting functions deliver consolidated, complete and detailed information. Centralized control of the solution guarantees reliability and standardization of the optimization policy. With customized access authorizations, responsibilities can be shared while protecting the integrity of the global IS management policy.

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STREAMCORE
SYSTEM

STREAMGROOMER 150, 420, 800, 1600 STREAMGROOMER MANAGER (SGM)



A COMPLETE SOLUTION FOR CONTROLLING AND AUTOMATING THE PERFORMANCE OF APPLICATIONS ON WANS

With the StreamGroomer Distribution line, companies can display, monitor, and automate the performance of applications that use wide area networks, and can control constantly changing, complex multiservice environments. The configuration includes active traffic management equipment - the StreamGroomers - that are controlled by a centralized management console - the StreamGroomer Manager (SGM).

PRODUCT FEATURES

The StreamOptimizer software in the product line offers the following processing features for applications traffic:

▶ MONITORING

STREAMVIEW & STREAMREPORT: Detailed audit of infrastructure performance, application behavior and the service provided to users: Hierarchical visibility (at the geographic, application, and user levels); Real-time or long-term monitoring; Control of telecom services; Network scaling support; Detection of abnormal behavior; Troubleshooting tools (traffic capture, active connections, etc.).

▶ ACTIVE MANAGEMENT

STREAMREMOTE CONTROL: Automatic acceleration of business applications for a remote site not equipped with StreamGroomer: Shaping and exclusive Multi-Shaping technology (consolidated view of the traffic on sites not equipped with StreamGroomers, guarantee of a first level of traffic optimization for these sites).

STREAMGROOMING: Automatic acceleration of end-to-end business applications, by placing a StreamGroomer at the remote site: End-to-end proactive management, for optimum control of the performance provided to users, greater visibility, more indicators (round-trip time, loss rate), greater control, etc.

STREAMCOMPRESSOR: End-to-end compression, providing additional capacity for increased performance and profitability.

▶ MANAGEMENT

STREAMCENTER: Centralized control from SGM guaranteeing a coherent service-level optimization policy and complete visibility: Centralized administration console including the active management policy features: monitoring/reporting, configuration and operation; Definition of customized access authorizations (read-only, write, geographic limitation), etc.

HARDWARE SPECIFICATIONS AND PERFORMANCE

MONITORING

RELEVANT PERFORMANCE INDICATORS

Real-time and historical monitoring

- ▶ **Of the network:**
Average and maximum throughput rates on a link, bandwidth breakdown between sites / between applications, application competition, round-trip time, loss and retransmission rates. Stress-based analysis of peak periods.
- ▶ **Of the applications:**
Application response time with network and server time breakdown, average and maximum throughput rates for individual applications, number of current active connections, number of TCP calls/minute, number of packets/second.
- ▶ **Of the users:**
Detailed monitoring and throughput rates for active connections, TOP N transmitters and receivers, traffic capture.

EXHAUSTIVE TRAFFIC CLASSIFICATION

- ▶ Automatic detection of hundreds of application protocols on TCP, UDP, IP and non-IP (Web traffic, e-mail, FTP, SNA, etc.).
- ▶ Hierarchical traffic classification: By ascending granularity, with combinations of inclusion and exclusion filters.
- ▶ Criterion-based traffic classification, by connection, up to Level 7 in the OSI model: IP addresses, source and destination ports, type of application protocol, TOS/DiffServ field value, IP precedence bits, specific application criteria (URL, Hostname, content-type, user-agent, FTP dynamic ports, etc.), VLAN, @MAC.

ACTIVE MANAGEMENT

COMPLETE QOS PROCESSING SHAPING /MULTI-SHAPING / GROOMING

- ▶ Automatic adaptation to throughput variations (Grooming).
- ▶ TCP and UDP traffic (including VoIP and Video on IP).
- ▶ Optional denial of access for certain applications (to extend the action of the Firewall on private networks).
- ▶ Weighted Fair Queuing, per connection (protecting each user) or per class:
Fair share: Fair sharing of bandwidth between active application connections for a given application.
Fast-Start: Automatic priority for interactive and transactional traffic. Protection through reserved throughput rates for real-time flows.
Work conserving: Continuous use of maximum link capacity.

END-TO-END COMPRESSION

- ▶ High-performance, on-the-fly compression.
- ▶ Lossless dictionary "synchronization" mechanism.
- ▶ Packet aggregation mechanism.
- ▶ Auto-adaptation to the network context (losses, MTU).

MANAGEMENT & DEPLOYMENT

EASE OF CONFIGURATION

- ▶ Monitoring: Configuration fully centralized from the SGM; access from a Web browser.
- ▶ Only one QoS parameter per application rule: relative bandwidth priority allocation.
- ▶ Throughput allocation reserved for multimedia traffic (VoIP, etc.).
- ▶ Configuration independent of the traffic mix (number of applications and users present).
- ▶ Shaping or Grooming modes configured in just a few clicks.

INTEGRATION INTO THE INFRASTRUCTURE

- ▶ Adaptation to network topologies: Branched or serial connection, progressive deployment combining Shaping, Grooming, and Compression.
- ▶ Availability: Automatic switching to Bypass mode in the event of a problem, easy deployment and troubleshooting via remote activation/deactivation or by switching to optimization/monitoring mode, fallback from Grooming mode to Shaping mode.
- ▶ Cooperation with operator QoS: Read/Write of the DiffServ field (TOS/DSCP).
- ▶ SNMP Agent, MIB II, MIB Bridge and MIB Streamcore.
- ▶ Alarm generation via an SNMP trap.

MODEL	SG 150	SG 420	SG 800	SG 1600
Performance				
Max. throughput in QoS	2 Mbit/s	45 Mbit/s	100 Mbit/s	300 Mbit/s
Max. throughput in Compression	2 Mbit/s	10 Mbit/s	45 Mbit/s	100 Mbit/s
Speeds available	512 Kbit/s & 2 Mbit/s	4, 10 & 45Mbit/s	45 & 100Mbit/s	150 & 300 Mbit/s
Max. number of TCP flows	3000	50,000	100,000	200,000
Max. number of bidirectional rules	400	4000	10,000	25,000
Size				
Height	3.5 cm	4.3 cm (1U)	4.3 cm (1U)	8.9 cm (2U)
Width	22.5 cm	44.5 cm (19" rack)	44.5 cm (19" rack)	44.5 cm (19" rack)
Depth	15.6 cm	51.4 cm	51.4 cm	65.3 cm
Weight	1.1 kg	6.05 kg	6.15 kg	16.5 kg
Power supply				
Power and type	Internal, 100/244 VAC 50/60 Hz 40 W max	Internal, 100/240 VAC 47/63 Hz 180 W max	Internal, 100/240 VAC 47/63 Hz 320 W max	Redundant, 100/240 VAC 47/63 Hz 550 W max
Environment				
Temperature	0 to 40°C	0 to 40°C	0 to 35°C	0 to 35°C
Relative humidity	10% to 90% at 40°C	5% to 85% at 40°C	5% to 90% at 20°C	5% to 90% at 20°C
MTBF	> 45,000 hours	> 45,000 hours	> 45,000 hours	> 45,000 hours
Interfaces				
Network interfaces (to LAN/WAN)	2x10/100 Base-T (integrated bypass)	2x10/100 Base-T (integrated bypass)	2x10/100/1000 Base-T (integrated bypass)	2x10/100/1000 Base-T (integrated bypass)
"Out of band" administration	10/100 Base-T	10/100/1000 Base-T	10/100/1000 Base-T	10/100/1000 Base-T
Asynchronous port	RS-232C - DB-9	RS-232C - DB-9	RS-232C - DB-9	RS-232C - DB-9
Certifications				
Miscellaneous	CE, FCC EN60950, EN55022, EN55024	CE, FCC EN60950, EN55022, EN55024	CE, FCC, DOC EN60950, EN55022, EN55024	CE, FCC, DOC EN60950, EN55022, EN55024

MODEL	SGM R500	SGM R1500	SGM R2000	SGM R4000	SGM R7000	SGM R20K	SGM R30K
Max. number of rules	500	1500	2000	4000	7000	20,000	30,000
Typical max. number of sites	20	60	100	200	450	1200	2000