Packeteer’s PacketShaper/ISP

PacketShaper® 4500, 6500, and 8500 models accommodate Packeteer’s PacketWise ISP edition software to provide vital IP bandwidth provisioning and management solutions for service providers. PacketShaper/ISP enables ISPs to leverage the resource that their subscribers covet most—bandwidth. From Internet access to VPNs, from web hosting to intelligent buildings, PacketShaper and its special ISP edition software ensure reliable and efficient performance across a broad range of services. It's the answer to service providers' demands for a high-capacity solution that delivers differentiated services, ensures fair and equal access, enforces user policies, and improves profit margins through various co-location services.

Expand Bandwidth-based Services

Prevent Subscribers From Using More Than They Paid for

Maximize Total Throughput

Graph Bandwidth Allocation, Network Efficiency, Top Consumers, and More

With PacketShaper 4500/ISP, 6500/ISP, and 8500/ISP, service providers can allocate bandwidth flexibly and cost-efficiently to suit subscribers' budgets and needs. PacketShaper/ISP protects subscribers' critical traffic, enforces user policies, and ensures service-level commitments through layer-7 classification, analysis, reporting, and policy-based control. Subscribers can choose between fixed or scaled bandwidth plans that cap usage at predetermined maximums or swell to suit demand.

Opportunities for Today's Service Provider

PacketShaper 4500/ISP, 6500/ISP, and 8500/ISP enable ISPs to offer new services and achieve greater revenue and mind-share from their subscribers.

Tiered Services — Bandwidth Farming:
Expand service offerings based on a flexible variety of bandwidth-allocation schemes including per-subscriber or per-user guarantees, caps, or unlimited bandwidth.

Web-Hosting Services: Enable clients to vary their web sites' performance according to their selection from your tiered service levels. Clients can even vary service levels for multiple sites running off of a single IP address or for different pages within a site.

Multi-Tenant & Multi-Dwelling Units:
Share common access connectivity fairly and equally by dividing bandwidth among MTU and MDU tenants.

Enforce User Policies: Set policies and caps to control aggressive bandwidth users who attempt to consume more than their share of bandwidth and disrupt performance for others.

Diffserv and MPLS Marking Sanitization:
Police and remark traffic to counter and control users who manipulate packet marking to gain preferential treatment over your other subscribers.

Denial-of-Service Containment: Use PacketShaper/ISP's classification and control features to contain DoS attacks.

Fair & Equal Access: Ensure user equality and controlled performance for content-sharing services such as a fee-based music-sharing service.
**Software Specifications**

**Classification Features**
- Application, protocol
- Subnet(s), user(s), server(s), IP Precedence, Diffserv ISL, VLAN, 802.1p/q, MPLS tag, port, IP or MAC addresses
- URL, Oracle database, published Citrix application, web browser, mime type

**Analysis and Reporting Features**
- Utilization, network efficiency, bytes transferred
- TCP health, packets, retransmission rates
- Top users, top applications, top web sites
- Retransmissions, errors
- More than 30 other measured variables

**Interoperability Features**
- XML, Diffserv, IP COS, TOS, LDAP, SNMP, event-based traps
- HP OpenView and PolicyXpert, Micromuse NETCOOL, InfoVista, Concord eHealth, Aprisma Spectrum, and other third-party products
- Integrates smoothly with popular SNMP tools like MRTG

**QoS Policy Features**
- Bandwidth settings: Min guaranteed; Max allowed
- Choice of explicit bps, relative priority, absolute priority
- Bandwidth settings can apply to individual applications, users, groups, VLANs, or combinations
- Bandwidth settings can apply to aggregate total or each flow/session
- Diffserv and 802.1p/q packet-marking for signaling QoS in network core
- TCP Rate Control
- UDP Rate Control
- Admissions rate control
- Burst priority
- Dynamic Subscriber Bandwidth Provisioning (DSBP)

**Hardware Specifications**

**Dimensions**
4500/ISP & 6500/ISP
- Standard 19-inch rack mount
- Height: 3.5 in (8.9 cm); Width: 17.20 in (43.7 cm); Depth: 15.25 in (38.7 cm); Weight: 16 lb (7.26 Kg)

8500/ISP
- Standard 19-inch rack mount
- Height: 3.5 in (8.9 cm); Width: 17.4 in (44 cm); Depth: 17 in (43 cm); Weight: 30 lb (13 Kg)

**Power**
4500/ISP & 6500/ISP
- 100/240 VAC, 50/60 Hz, 2A
- Dual, redundant, load-sharing power supplies and dual power source connections

8500/ISP
- 100/240 VAC, 50/60 Hz, 6A
- Dual, redundant, load-sharing power supplies, hot-swappable power supplies and dual power source connections

**Interface Connections**
- Console port: RS-232 (AT-compatible) with male DB-9 connectors
- Network interface:
  - 4500/ISP & 6500/ISP: 10/100 Mbps Ethernet RJ45
  - 8500/ISP: 10/100/1000 Mbps Ethernet RJ45
- 2 PCI slots for hw-assisted features

**Device Management**
- DB-9 console port
- PolicyConsole web-browser interface
- Telnet command-line interface
- SNMP Packeteer MIB and MIB-II support

**Agency Approval**
- Safety: CAN/CSA-C22.2 No. 1950-95/ UL 1950, IEC 60950, EN 60950
- Emissions: BSMI CNS 13438, CE EN55022, C-TICK (AS/ NZS 3548), FCC Part 15, VCCI
- Immunity: EN 55024, EN 61000-3-2, EN 61000-3-3

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*PacketShaper/ISP can support more hosts and flows, however these figures represent the ideal maximums for producing optimal results.

**PacketShaper/ISP Capacity Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Control Cap</th>
<th>Max Classes</th>
<th>Max Partitions</th>
<th>Dynamic Partitions</th>
<th>Max Policies</th>
<th>Max IP Hosts*</th>
<th>Max IP Flows* (TCP/Other IP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500/ISP</td>
<td>45 Mbps</td>
<td>1,000</td>
<td>1,000</td>
<td>2,000**</td>
<td>1,000</td>
<td>25,000</td>
<td>75,000/25,000</td>
</tr>
<tr>
<td>6500/ISP</td>
<td>100 Mbps</td>
<td>2,000</td>
<td>2,000</td>
<td>5,000**</td>
<td>2,000</td>
<td>75,000</td>
<td>200,000/100,000</td>
</tr>
<tr>
<td>8500/ISP</td>
<td>200 Mbps</td>
<td>5,000</td>
<td>5,000</td>
<td>20,000**</td>
<td>5,000</td>
<td>200,000</td>
<td>500,000/200,000</td>
</tr>
</tbody>
</table>

* The number of static partitions is less than the maximum allowed, these unused partitions are available to be used as dynamic partitions.

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