

Migrating to **Exinda NetworkOrchestrator** from **PacketShaper**



Exinda Network Orchestrator is a price-compatible alternative for End-of-Life Symantec/Blue Coat PacketShaper customers

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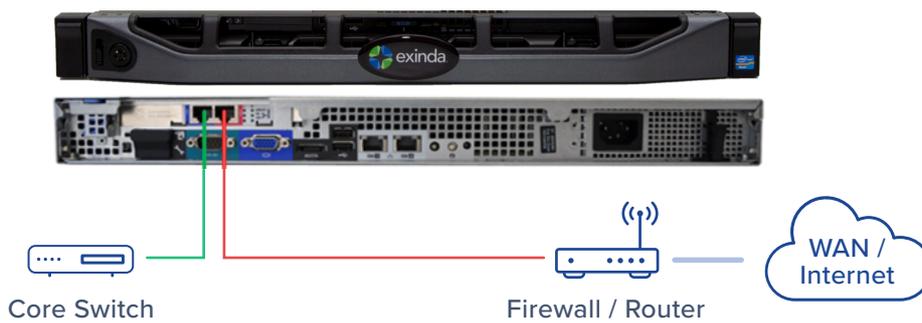
Deployment

Both *Exinda Network Orchestrator* and *PacketShaper* support the same deployment scenarios, enabling migration without needing to disrupt current network environments. Both solutions are equipped with “bridges” (copper or fiber) which are transparent to routers, switches and application infrastructure. In both cases, bridges are able to operate in bypass mode which adds an extra layer of stability to the whole deployment.

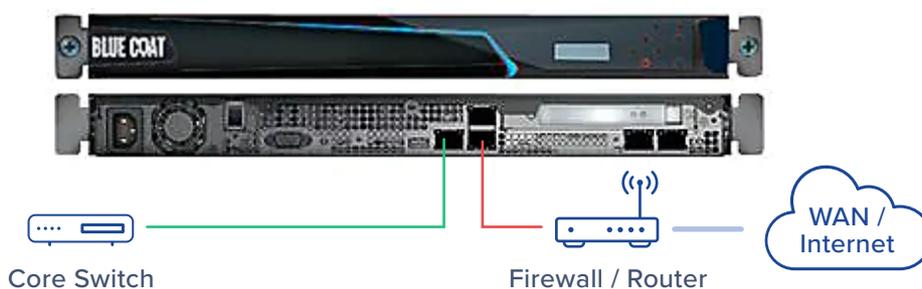
Each interface in the bridges has a label to identify the right location, so, the relationship is:

exinda NetworkOrchestrator	BLUECOAT PacketShaper
LAN	INSIDE
WAN	OUTSIDE

exinda **NetworkOrchestrator**



BLUECOAT PacketShaper





Accessibility (Exinda Network Orchestrator)

Exinda Network Orchestrator can be accessed via different techniques such as Telnet, SSH, Serial, HTTP or HTTPS. HTTPS is the most popular among users; this graphical user interface is designed to be intuitive, user-friendly and secure. It is based on HTML5 which is the new standard in all web browsers.

Web UI Options

Web UI Enable

Auto Logout Timeout minutes

HTTP Access Enable

HTTP Port

HTTPS Access Enable

HTTPS Port

Use this form to configure Command Line Interface (CLI) options.

CLI Options

Auto Logout Timeout minutes

Telnet Access Enable

SSH Access Enable

SSH Version

Accessibility (Symantec PacketShaper)

PacketShaper also offers many ways to access the device. The most popular is a web user interface via HTTPS. The biggest security bottleneck of this connection is the dependency on Adobe Flash player. This adds a significant vulnerability into the system (and is also approaching EOL quickly from major browsers like Firefox and Chrome). It is no longer being used in competitive products such as *Exinda Network Orchestrator*.

BLUE COAT

This content requires Adobe Flash Player (version 10.0r32 or higher).

It appears that Adobe Flash Player has crashed, or your browser does not have the latest version of Flash Player installed. To resolve this issue, close and re-open your browser or click [here](#) to download and install Adobe Flash Player from the Adobe website.



Installation

Deployment of both devices is very easy and complemented by intuitive wizards. The *Exinda Network Orchestrator* initial wizard is called “Jump Start Questions,” which displays 23 simple questions which prepare the device for first use.

```

You have entered the following information:

1. Enable IPv6: yes
2. Enable IPv6 autoconfig (SLAAC) on eth1 interface: no
3. Use eth1 for management access. Note: This disables br1 (Y/N): N
4. Enable br1 (Y/N): Y
5. Use DHCP on br1 (Y/N): Y
6. Enable br3 (Y/N): Y
7. Use DHCP on br3 (Y/N): N
8. br3 IP address and netmask:
9. Hostname: Exinda-HQ
10. SMTP server address:
11. An email address for reports and alerts:
12. Admin password (Enter to leave unchanged): (unchanged)
13. Do you want to configure the interface speed and duplex settings? (Y/N): N
14. Do you want to change HTTP proxy settings (Y/N): N
15. Do you want to check for a new license online (Y/N): (valid)
16. Do you want to configure optimization policies (Y/N): Y
17. Do you want to accelerate (Y/N): Y
18. Do you want to apply QoS (Y/N): Y
19. Select the topology type (WAN, or WAN and (I)nternet (W/I): WAN
20. Inbound bandwidth (k/M/G): 1k
21. Outbound bandwidth (k/M/G): 1k
22. Do you want to start the optimizer (Y/N): Y
23. Check for new firmware (Y/N): N

To change an answer, enter the step number to return to.
Otherwise hit <enter> to save changes and exit.
  
```



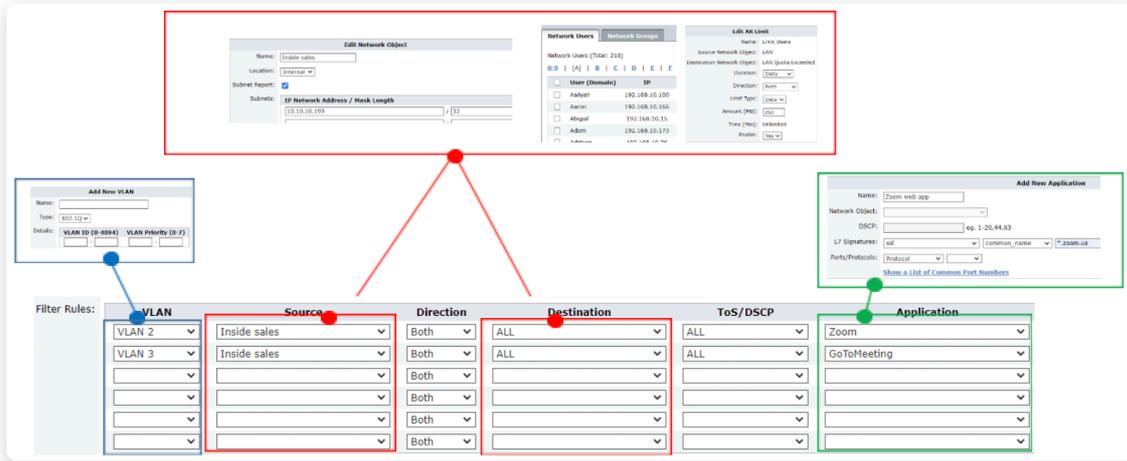
Setting migration

There is no direct migration path from *PacketShaper* to *Exinda Network Orchestrator*. However, the many similarities between the products make migration to Exinda smooth and fast. Before we address these feature similarities directly, let's identify terms meaning the same things first.

exinda NetworkOrchestrator	BLUECOAT PacketShaper
Application	Service
Application group	Service group
Bridge	Device
Protocols	Protocol family
Users (from AD)	Users (from AD)
Location (internal/external)	Server location (inside/outside)
Network objects	Host/Subnet
Policy	Traffic class
Bridge	Device
Action and bandwidth control (policy level)	Policy types
Virtual Circuit	Partition

Filtering Rules (Exinda Network Orchestrator)

Each policy defined in *Exinda Network Orchestrator* lets you choose the traffic type the policy will affect. This is done through filtering rules where you choose to filter according to specific objects : VLAN; Source; Direction; Destination; TOS/DSCP; Application/application group. *Exinda Network Orchestrator* comes with a predefined application/group inventory. This can be easily expanded through custom defined applications. Each policy needs to have at least one filtering rule. When *Exinda Network Orchestrator* maps to a specific policy, it compares the flow with filtering rules.

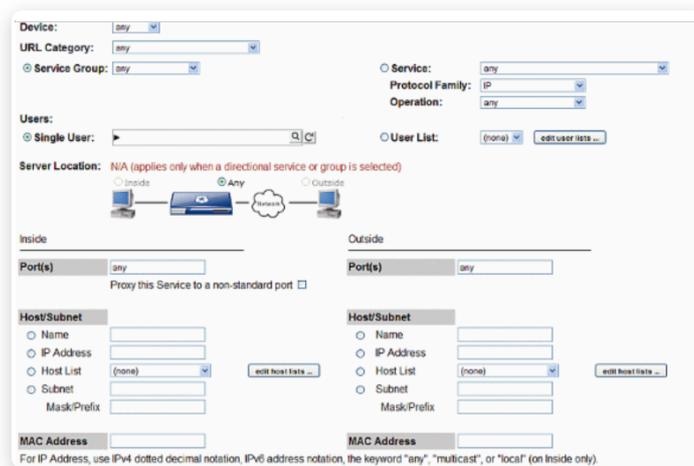


The screenshot displays the configuration interface for filtering rules in Exinda Network Orchestrator. It features several panels: 'Edit Network Object' at the top left, 'Network Users' and 'Add New Application' at the top right, and a 'Filter Rules' table at the bottom. The 'Filter Rules' table has columns for VLAN, Source, Direction, Destination, ToS/DSCP, and Application. Red and green boxes highlight specific configuration areas, and red lines connect these boxes to the corresponding fields in the 'Filter Rules' table.

Filter Rules:	VLAN	Source	Direction	Destination	ToS/DSCP	Application
	VLAN 2	Inside sales	Both	ALL	ALL	Zoom
	VLAN 3	Inside sales	Both	ALL	ALL	GoToMeeting
			Both			
			Both			
			Both			
			Both			

Matching rules (Symantec PacketShaper)

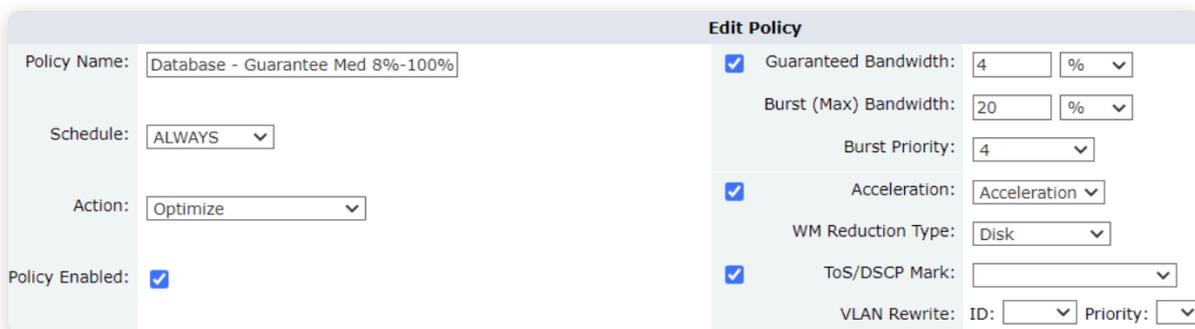
Matching rules define the criteria used by *PacketShaper* to identify traffic types. Every traffic class must have at least one matching rule. When *PacketShaper* tries to map a traffic flow to a class, it compares the flow with criteria in the class by matching the rules.



The screenshot displays the configuration interface for matching rules in Symantec PacketShaper. It features several sections: 'Device', 'URL Category', 'Service Group', 'Users', 'Server Location', 'Port(s)', 'Host/Subnet', and 'MAC Address'. The 'Server Location' section includes a diagram showing traffic flow between 'Inside' and 'Outside' networks. The 'Host/Subnet' section has radio buttons for 'Name', 'IP Address', 'Host List', and 'Subnet'. The 'MAC Address' section has a text input field.

Policy (Exinda Network Orchestrator)

With *Exinda Network Orchestrator* you create policies which are responsible for traffic control. Policies are defined by : filtering rules, priority, guaranteed bandwidth (minimum and burst) , web caching, acceleration techniques and additional actions (Discard, Ignore, Return HTML response, HTTP redirect, DSCP packet marking). Guaranteed bandwidth reservations are done only from the portion of bandwidth already allocated to the Virtual Circuit, which is serving as the mother element for every policy. Every policy has a priority which distinguishes which policy gets extra (burst) bandwidth when available.



Edit Policy

Policy Name: Database - Guarantee Med 8%-100%

Schedule: ALWAYS

Action: Optimize

Policy Enabled:

Guaranteed Bandwidth: 4 %

Burst (Max) Bandwidth: 20 %

Burst Priority: 4

Acceleration: Acceleration

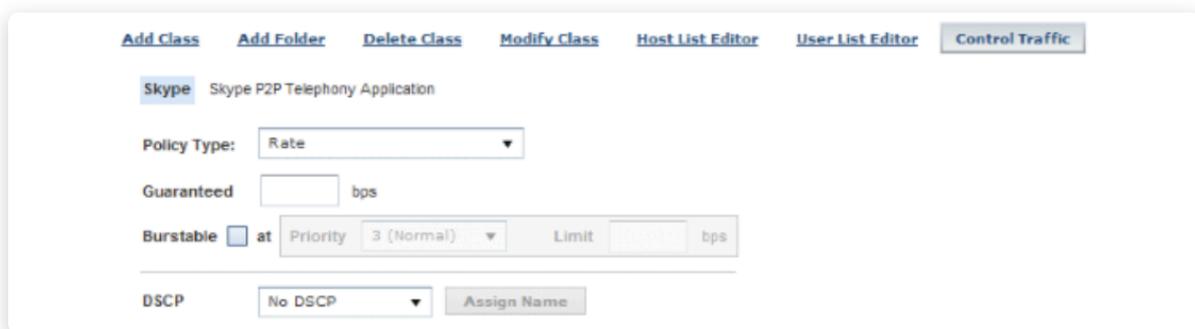
WM Reduction Type: Disk

ToS/DSCP Mark:

VLAN Rewrite: ID: Priority:

Policy (Symantec PacketShaper)

A policy determines how an application is treated in the context of competing applications. In *PacketShaper* there are several policy types such as : Priority, Rate, Discard, Ignore, Never Admit.



[Add Class](#) [Add Folder](#) [Delete Class](#) [Modify Class](#) [Host List Editor](#) [User List Editor](#) [Control Traffic](#)

Skype Skype P2P Telephony Application

Policy Type: Rate

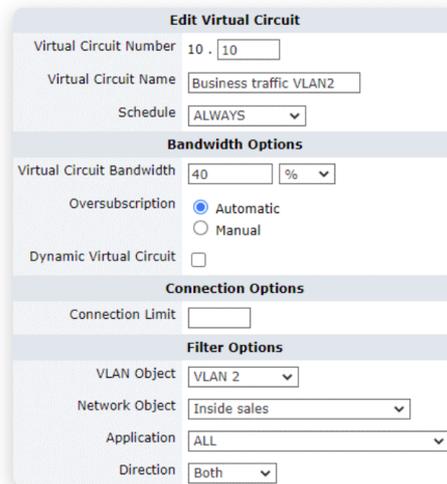
Guaranteed bps

Burstable at Priority 3 (Normal) Limit bps

DSCP No DSCP [Assign Name](#)

Virtual circuit (Exinda Network Orchestrator)

With *Exinda Network Orchestrator* you can control bandwidth at two levels. The First level is the Virtual Circuit where you can define how much bandwidth will be allocated to traffic meeting certain requirements/filters (for example all traffic from VLAN 2 etc.). Bandwidth assigned to a Virtual Circuit comes from the total available bandwidth for the bridge/internet connection. Traffic passing through the bridge will be automatically matched by the Virtual Circuit. A Virtual circuit consists of at least one policy which will control traffic matching its filters.

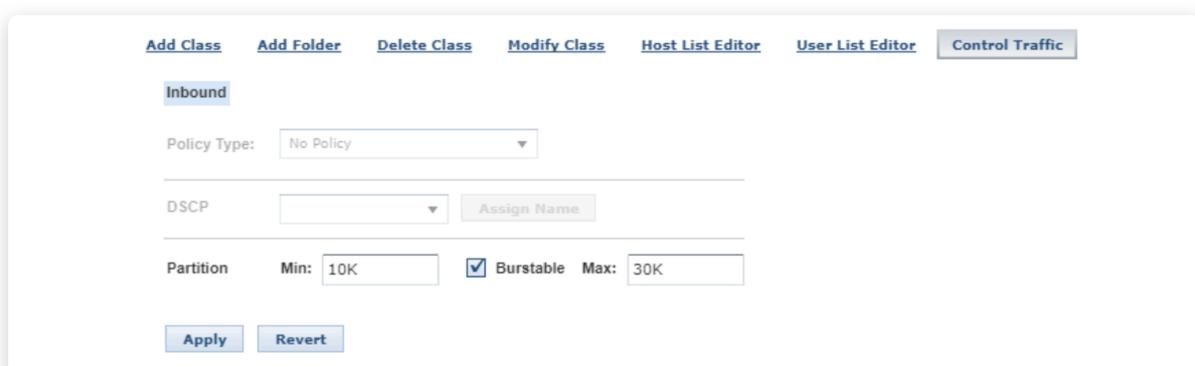


The screenshot shows the 'Edit Virtual Circuit' configuration window. It includes the following fields and options:

- Virtual Circuit Number:** 10
- Virtual Circuit Name:** Business traffic VLAN2
- Schedule:** ALWAYS
- Bandwidth Options:**
 - Virtual Circuit Bandwidth:** 40 %
 - Oversubscription:** Automatic (selected), Manual
 - Dynamic Virtual Circuit:** (unchecked)
- Connection Options:**
 - Connection Limit:** (empty)
- Filter Options:**
 - VLAN Object:** VLAN 2
 - Network Object:** Inside sales
 - Application:** ALL
 - Direction:** Both

Partition (Symantec PacketShaper)

A partition manages the bandwidth for traffic class aggregated flows. The flows of chosen classes are controlled together as one with a single partition, limiting their overall consumption.



The screenshot shows the 'Control Traffic' configuration window in Symantec PacketShaper. It includes the following fields and options:

- Policy Type:** No Policy
- DSCP:** (empty) Assign Name
- Partition:**
 - Min:** 10K
 - Burstable:** (checked)
 - Max:** 30K
- Buttons:** Apply, Revert



Three-level hierarchy (Exinda Network Orchestrator)

Circuit 10 - Main circuit (600000 kbps in, 150000 kbps out on bridge(s): 'br20')

Virtual Circuit 10 - Business traffic (40% on VLAN 'VLAN 2' to / from 'Inside sales')

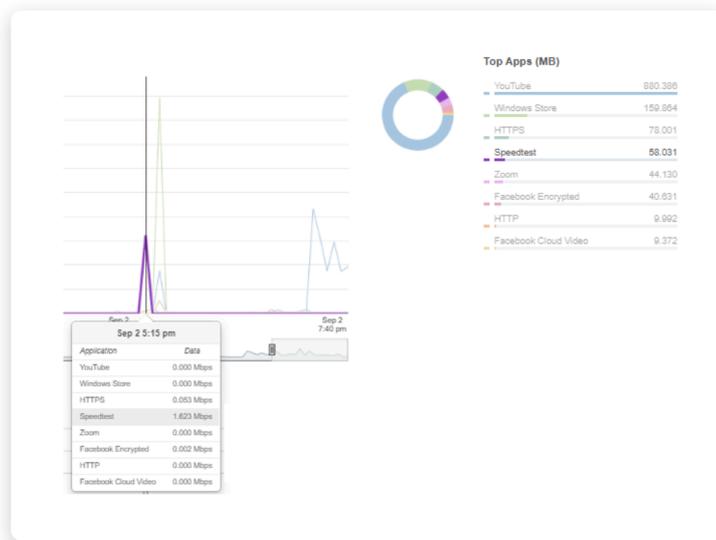
✓	2	ship (Optimize 4% - 6%, Priority 1, Edge Cache)
✓	3	YouTube 01 (Optimize 4% - 15%, Priority 2)
✓	5	skype (Optimize 1% - 5%, Priority 1)
✓	6	office365 (Optimize 6% - 30%, Priority 1)
✓	10	Zoom (Optimize 4% - 15%, Priority 1, Edge Cache)
✓	11	Stiahni to.sk (Optimize 5% - 20%, Priority 2, Edge Cache)
✓	15	udemy cache (Optimize 10% - 15%, Priority 1, Edge Cache)
✓	40	Remote connections app (Optimize 3% - 10%, Priority 1, Edge Cache)
✓	50	updates (Optimize 1% - 5%, Priority 10, Edge Cache)
✓	60	WhatsApp (Optimize 1% - 3%, Priority 1, Edge Cache)

Overview of class tree (Symantec PacketShaper)

Class	DSCP	Policy / Partition
/Inbound		- / uncommitted - none
/Inbound/Localhost		Priority (6)
/Inbound/Default		Priority (3)
/Outbound		- / uncommitted - none
/Outbound/Localhost		Priority (6)
/Outbound/SSL		
/Outbound/Default		Priority (3)

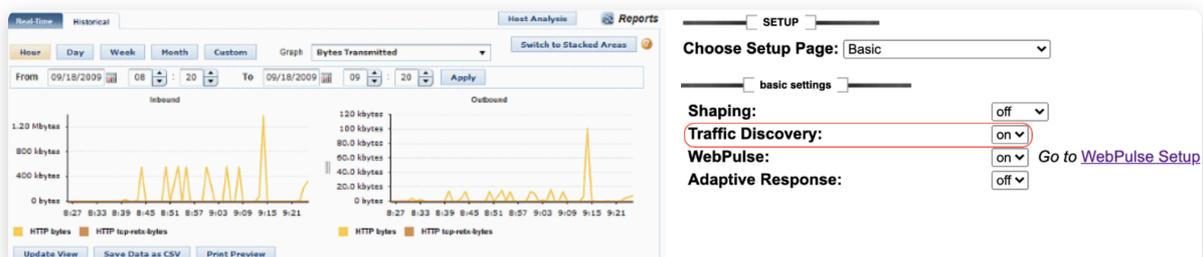
Reporting (Exinda Network Orchestrator)

Exinda Network Orchestrator reports on all traffic thru the appliance or instance without needing to configure policy or objects. There are reports for: RealTime, Detailed reporting (RTM statistic types and more); Subnet report; Exinda APS (similar to “Time Management” in the PacketShaper) and more.



Reporting (Symantec PacketShaper)

PacketShaper has Limited host visibility (limited to traffic classes with Top-10 Host reports enabled, 16 instances total). Historical reports may be pulled for a span of up to one month for already created classes. When a user wants to generate reports, he/she needs to define traffic discovery.



Important FAQ's

- ① *Exinda Network Orchestrator does not need a policy engine to perform reporting; you only need to define policies for traffic you want to explicitly control.*
- ② *Exinda Network Orchestrator does not need a definition of traffic in order to report on it.*

Added value of transferring to Exinda Network Orchestrator

-  **Exinda Management Center (EMC)** - EMC serves as central management for bigger environments consisting of multiple Exinda units. EMC offers a centralized library, policy and object distribution, appliances status/helicopter view, centralized CLI and firmware updates. By contrast, you can achieve the same with PacketShaper using a combination of two independent products (PolicyCenter and IntelligenceCenter). This will cost more.
-  **Exinda Edge Cache** - When web objects are downloaded from the Internet or across WAN links, Edge Cache stores them at the edge of the network. When subsequent requests come for the same material, the content is quickly delivered from the Edge Cache without having to download the data again over the WAN. Edge Cache can hold web objects, videos, software updates, and other content on the WAN.
-  **Exinda Optimization** - There are multiple techniques for optimization, including TCP-based acceleration, WAN memory/data de-duplication and compression. Those techniques work together to provide the user with better application experience and also to save significant amounts of resources (bandwidth).

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HTTPS visibility - *Exinda Network Orchestrator* can bring HTTPS visibility with its ability to read common and organization names from used SSL certificates. This gives the user enough tools to create custom applications covering this encrypted traffic.

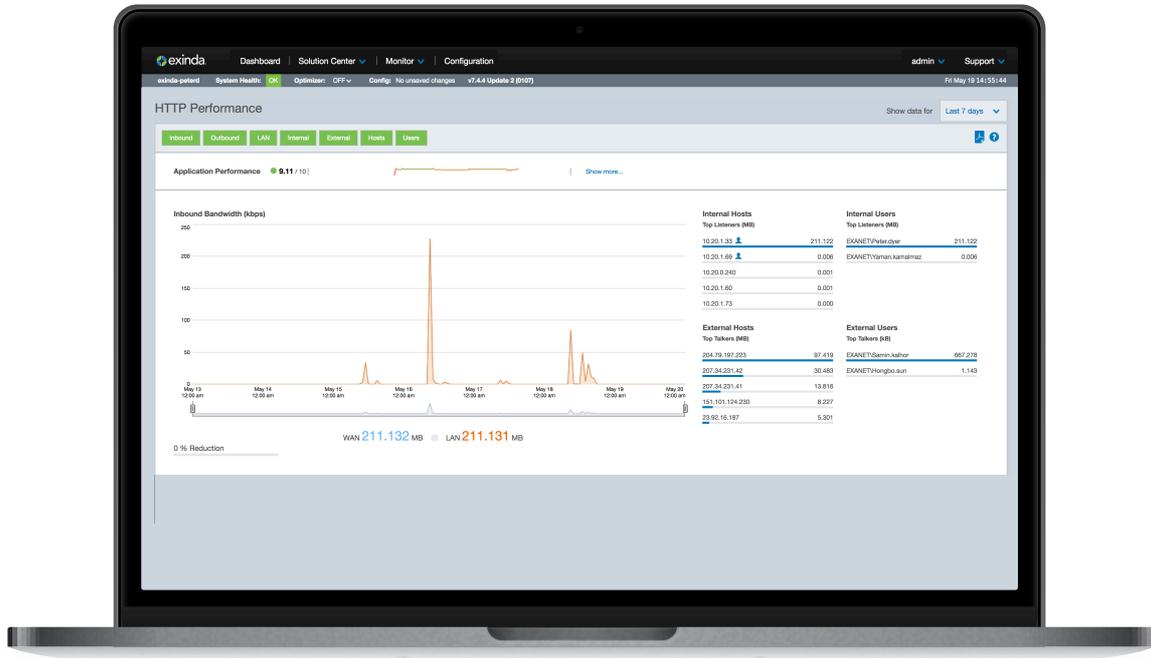
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Licensed bandwidth - *PacketShaper* is licensed in “tier mode” where a customer needs to choose the closest tier to her/his current bandwidth usage (example tiers include 50 mbps; 100 mbps; 250mbps etc.). *Exinda Network Orchestrator* uses license extensions to meet exact bandwidth value available for the customer. This means customers won’t pay for something they will not be using (extra bandwidth beyond value of their connection/s).

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Limitation within traffic control - *PacketShaper* is limited when it comes to number of filters and named classes. *Exinda Network Orchestrator* allows users to define the number of objects needed (network objects, application objects, VLAN objects etc.)

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Report retention – *PacketShaper* can save gathered data (reports) for up to two months. If a user wants to store data for a longer period of time, additional solutions are required (IntelligenceCenter). *Exinda Network Orchestrator* can store data for up to two years without any additional device or cost.

HW boxes comparison

Bandwidth	Exinda Network Orchestrator	Symantec PacketShaper
10 Mbps	3062	PS-200-10ML
50 Mbps	3062	PS-200-50ML
100 Mbps	3062	PS-200-100ML
150 Mbps	3062	PS-200-100MH
250 Mbps	4062	PS-S200-250MH
500 Mbps	4062	PS-S200-500MH
1 Gbps	4062	PS-S400-1GH
2 Gbps	8064	PS-S400-2GH/ PS-S500-2GH
5 Gbps	8064	PS-S500-5GH
6 Gbps	8064	PS-S500-10GH
10 Gbps	10064	PS-S500-10GH
20 Gbps	12064	none



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