

# Quick Guide

# PacketShaper Migration

## Allot Hardware and Centralized Management

### High Performance and Scalable Design

Award-winning carrier-class network visibility, control, and security technology that's built on carrier-class performance and reliability. Rich deployment methods that support active-redundancy and asymmetric traffic detection, which maintains accurate Layer-7 visibility and control of user-application traffic across multiple platforms, even when asymmetric upstream and/or downstream IP flows are processed by different appliances.

### External Bypass

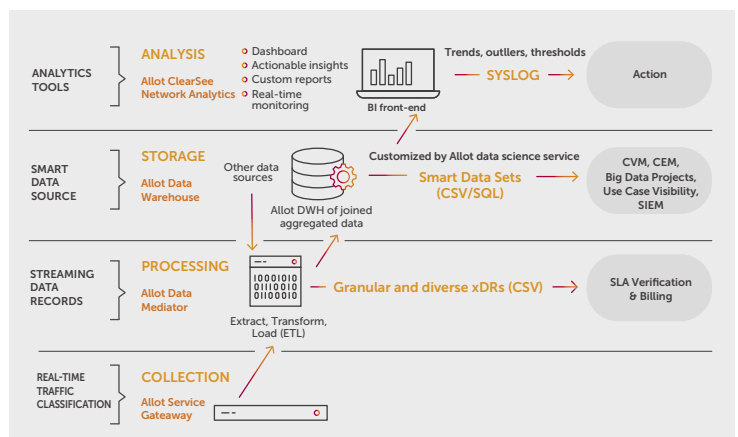
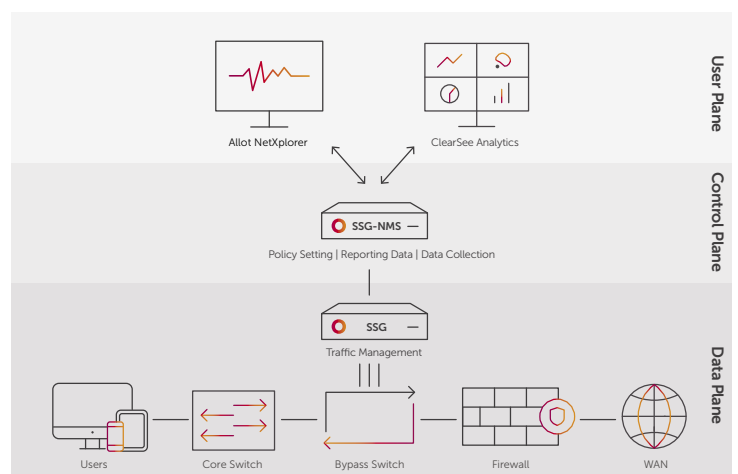
Provides fail-safe and inline protection to the network. With external bypass, appliance can be disconnected without breaking any network links for planned maintenance or upgrade purposes.

### Future-Proof Scalability

Start small and expand seamlessly with pay-as-you-grow deployment that reduces initial capital outlay. Each appliance offers a range of capacity with high port density and a wide range of interfaces.

### Centralized Management

Powerful centralized management center that facilitates in-depth analysis of network and user usage, unified configuration, and management of Allot products. With the enterprise centralized reporting, you can see all the network devices in one single view.



# Allot Visibility

Traffic monitoring is activated by default and it is independent of policy enforcement rules

Allot starts collecting statistics once traffic goes through the device, no special configuration is needed. QoS enforcement policies can be configured independently. Allot uses a hierarchical branching structure to organize and classify passing traffic, forming a traffic tree for traffic monitoring and QoS enforcement and determination of which limiting policy enforcement strategy can be applied. No limitation of "classes," "Matching rules," "IP Hosts," "Top talker & listener stats," etc.

## Layer 7+ application and SSL encrypted traffic visibility

Up-to-date DPI engine and application recognition including web, mobile, and business applications (P2P, VPN, anonymizers, cryptocurrencies, Office 365 suite, etc.). Allot has developed expertise in detecting different types of encrypted applications, specifically risky applications, that enable users to bypass traditional security controls.

## Signature Update Frequency

Application signatures are updated every 2 weeks and the Protocol Pack can be applied in production without any impact to traffic. Thanks to application categories management, it is possible to apply rules automatically when new applications are added.

(PacketShaper's application signatures are embedded as part of the firmware and need a maintenance window to apply application signature updates.)

## Enterprise Network Analytics

Business analytics software that compiles meaningful business intelligence from your company's network usage data, and the ability to make the right business decisions to achieve your goals. We identify and obtain the right data sets and build customized reports for specific use cases that need specific analysis.

## Insightful User Usage Reporting

Allot SMP provides integration with the Enterprise's active directory, DHCP, or RADIUS (E.g: Integration with NAC systems like ClearPass, Cisco, WiFi controllers etc.) in order to achieve user-level visibility and control within the enterprise. The interactive dashboard of ClearSee Analytics integrates with SMP to provide real-time and long-term analytical reports detailing the usage patterns of individual users, including the applications and devices they use and the volume of traffic they generate.

## Multiple Ways to Share

Dashboard and Self-Service reports may be shared with others via the GUI, and exported in a variety of formats, including Excel (plain text or with formatting), HTML, CSV, PDF file, and simple plain text.

## Efficient Source Data Export

Allot Smart Data Source efficiently exports modelled source data in standard formats or in customized file formats to external analytics applications and to other business intelligence systems. Export and refresh frequency is a configurable parameter. Usage data records may be exported directly from the Allot Smart Data Source data mediator when this type of data source is required.

## Data Retention Period

By default:

- Raw 5-minute data of last 12 hours
- Hourly data of last 31 days
- Daily data of last 63 days
- Monthly data of last 12 months

Allot Visibility Provides Deeper Understanding, Better Business Insight

# Allot Control

## Very Flexible Policy Engine

An easy to learn, flexible, and powerful centralized policy engine makes it easy for you to provision and enforce real-time Quality of Service (QoS), steering, metering, and charging policy with equal granularity.

No limitations:

- Can configure a single class per both directions and apply control action per direction independently to the single specific class
- Can create flexible time base rules
- Changing the rule processing order with no need to rename the traffic class
- Policy changes are immediate thanks to intuitive UI
- No limitation of classes, IP hosts and matching rules
- No complex calculation of TCP rate control algorithm

**Policy setting is very straightforward and intuitive, user friendly, great UX object and rule configuration.**

The screenshot displays the Allot NetExplorer interface for configuring policies in a ServiceGateway. The main area shows a table of policies with the following columns: Name, In Use, Alarms Assigned, Internal, Direction, External, Service, Time, Interface, Access, and QoS. The table contains the following data:

Name	In Use	Alarms Assigned	Internal	Direction	External	Service	Time	Interface	Access	QoS
Internet	On	None	Any	+	Any	All IP	Anytime	Any	Accept	Normal Line ...
Anonymizers	On	None	Any	+	Any	VPNs and Anonymi...	Anytime	Any	Drop	Normal Pipe ...
Cryptocurrencies	On	None	Any	+	Any	Cryptocurrencies	Anytime	Any	Drop	Normal Pipe ...
Fallback (T)	On	None	Any	+	Any	Business Applications	Anytime	Any	Accept	Normal Pipe ...
WAN	On	None	Any	+	Any	Business Applications	Anytime	Any	Accept	Normal Line ...
Branch A	On	None	Any	+	Any	Network Operation	Anytime	Any	Accept	Normal Pipe ...
Branch B	On	None	Any	+	Any	Terminals	Anytime	Any	Accept	Normal Pipe ...
Fallback (T)	On	None	Any	+	Any	Business Applications	Anytime	Any	Accept	Normal Pipe ...
Fallback	On	None	Any	+	Any	All Service	Anytime	Any	Accept	Normal Line ...

An 'Apply' button is located at the bottom right of the table.

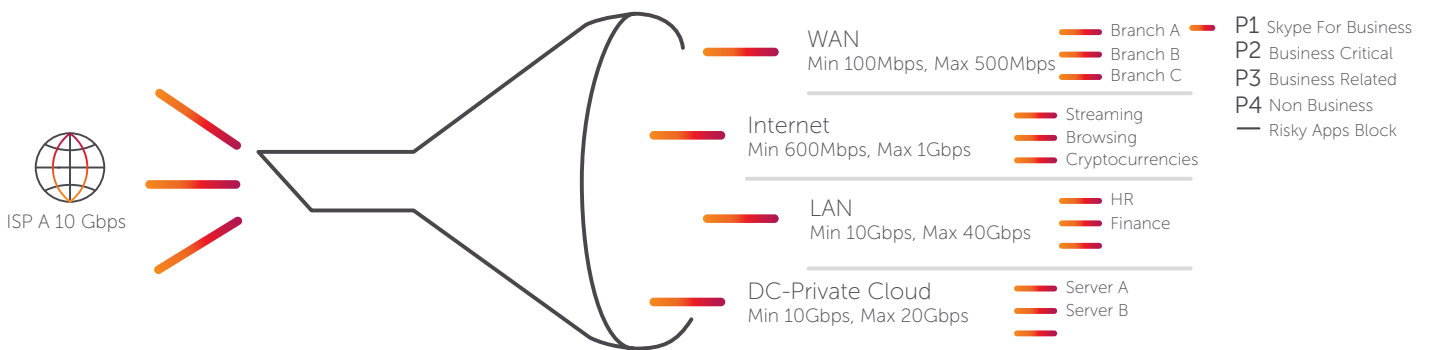
## Shaping Algorithm

Allot uses Weighted Random Early Detection (WRED), a queue management algorithm with congestion avoidance capabilities, where each different queue (class) has different queue thresholds.

Allot is using standard mechanisms built in the TCP to bring the WAN utilization to the maximum. It uses a unique combination of Per Flow Queuing and Smart Queue Scheduling to precisely control bandwidth on the incoming and outgoing traffic. Its policies are based on various criteria, including, when needed, data located within the traffic.

PacketShaper is tampering with the standard TCP protocol by changing TCP window size. Changing the TCP window on the fly can cause unpredictable behavior of different TCP stacks.

Another problem of PacketShaper's TCP rate control is related to two TCP stacks (receiver and transmitter) becoming unsynchronized and not getting what each one is expecting.



## Steering and Service

Chains policy-based redirection where specific application or user flows are redirected to internal or external services. Allot can even use Service Chains to combine several integrated services to allow steering of the same connection to more than one service.

## Service Tiering and Quota Management

Allot Subscriber Management Platform (SMP) can be configured to provide a standalone Policy Control and Enforcement solution with a rich service creation framework that facilitates the rapid deployment of tiered service plans based on personal Quality of Service (QoS) parameters, usage quotas, and overage policies that enforce how each user's traffic is treated.

## Allot Multitenant Visibility and Control

### Customize View of Bandwidth Management

Allot NetPolicy Provisioner grants business customers secure access to a customized view of their own ongoing network usage and performance analysis.

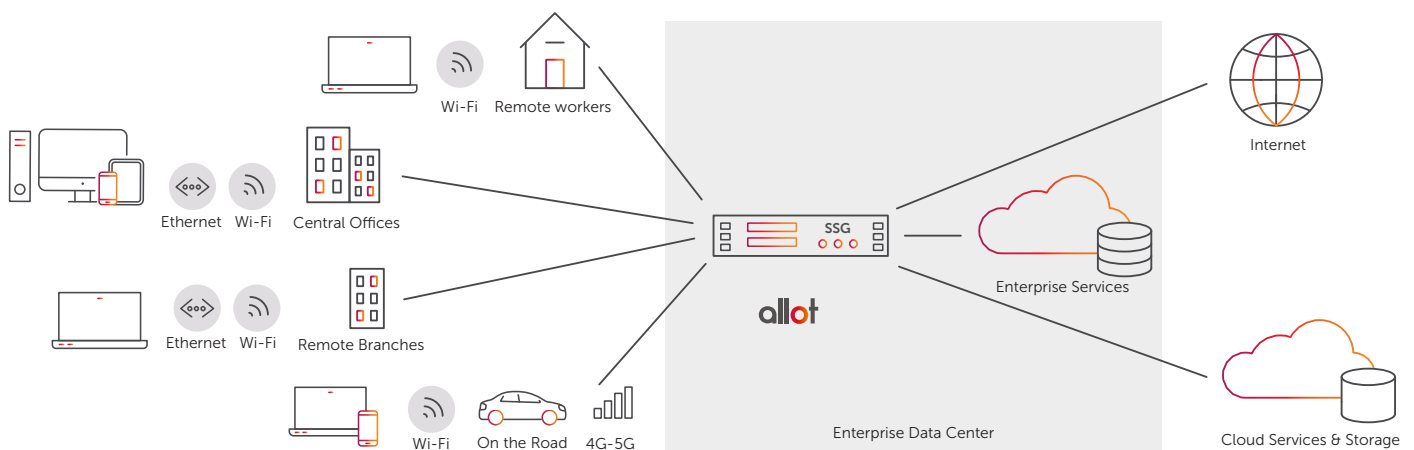
### Empowering Self-Management Capabilities

Allot NetPolicy Provisioner enables business customers to implement their QoS policies on their own bandwidth pipe(s), with minimal supervision.

## Allot WAN and Internet TCP Optimization

### TCP Optimization

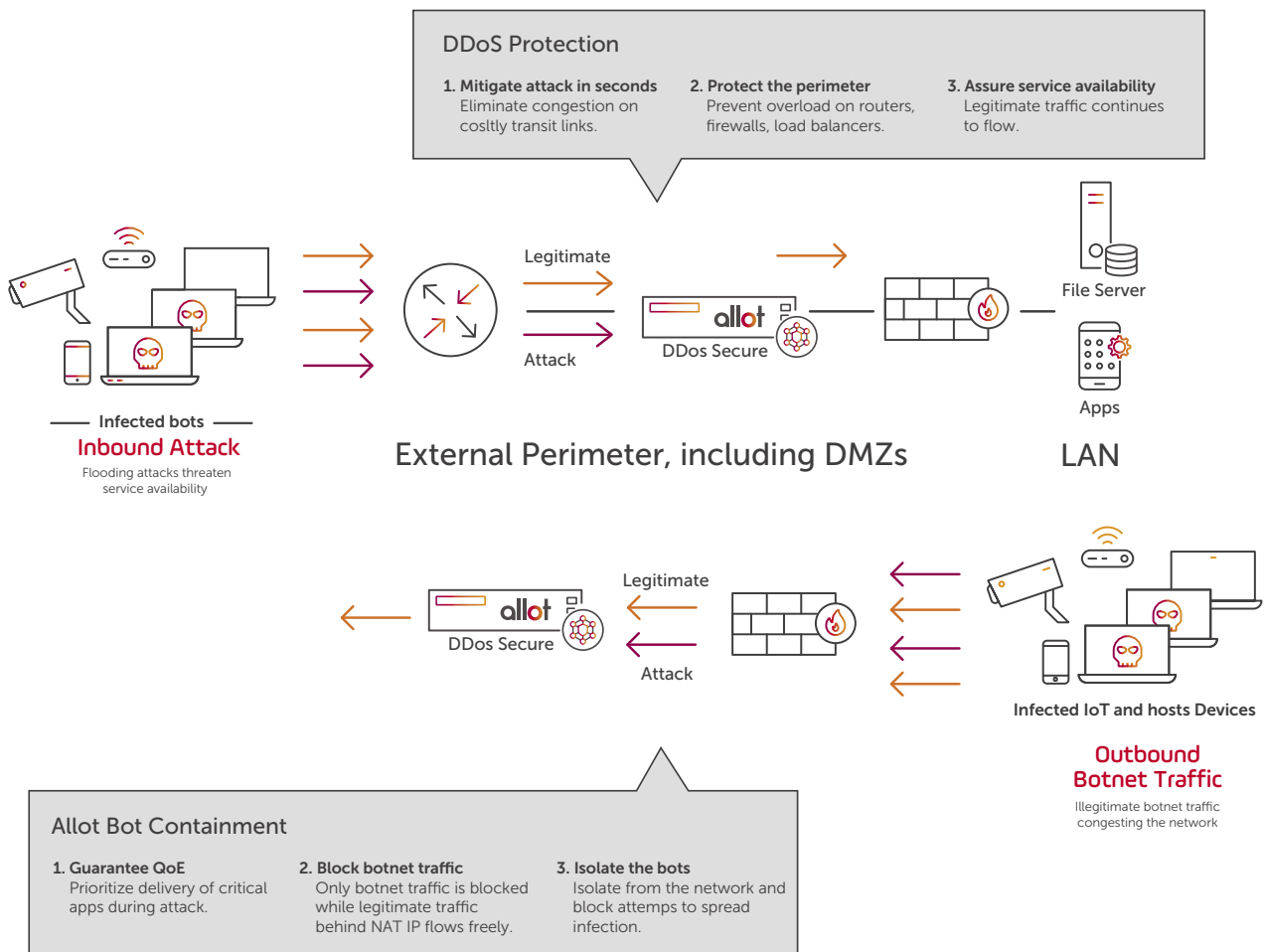
Accelerate TCP traffic so you can deliver content and applications faster, reduce response times, and avoiding excessive buffering. Single point deployment dramatically reduces cost while recovering maximum bandwidth.



# Allot Security

## Powerful DDoS Protection

Inline DDoS protection and mitigation system designed for large enterprises networks with Tera-bit scale. Automatically removes hit-and-run attacks within seconds while maintaining maximum QoE for all legitimate network services. Allot DDoS protection enables easy integration with external scrubbing centers. (PacketShaper does not have an embedded anti-DDoS solution.)



## Web Security

Network-based security to protect against malicious internet content and attacks including malware, phishing, ransomware, crypto-jacking, and harmful websites.

## Key Features Comparison

	Allot	PacketShaper
Traffic Classes	2M	10K
Partitions	2M	10K
Dynamic Partitions	2M	20K
Policies	2M	10K
Matching Rules	2M	25K/50K
Classes with worst clients/servers	1.2M	16 (only 16!)
Classes with top talkers/listeners	1.2M	32 (only 32!)
TCP flows	24M	1M
Host Lists entries	5M	200K
External Bypass	<b>Yes</b>	<b>No</b>
Orthogonal policies	<b>Yes</b>	<b>No</b>
Multitenancy	<b>Yes</b>	<b>No</b>
DDoS protection and mitigation	<b>Yes</b>	<b>No</b>
Centralized Management	<b>Yes, HTML 5.0 based</b>	Very limited, based on Flash and deprecated
Business Intelligence\Big data reports	<b>Yes</b>	<b>No</b>
Active Directory Integration	Unlimited groups 180,000 users	250 groups 10,000 users

[For more about Allot solutions for enterprise click here »](#)