

Pulse Secure Virtual Traffic Manager Bare-Metal Appliance

HIGHLIGHTS

- **Flexible deployment:** Install Pulse Secure Virtual Traffic Manager as software, virtual appliance, or on a bare-metal server
- **Scalability:** Cluster multiple appliances to achieve massive scale, and even cluster between appliance and virtual platforms
- **Management and control:** Full remote management and configuration for automated provisioning

High-Performance Virtual ADC Increases Deployment Flexibility as a Bare-Metal Appliance

The Pulse Secure Virtual Traffic Manager (Pulse Secure vTM), the pioneering application delivery controller for virtual and cloud environments, is also available as a complete software appliance image which can be installed on certified bare-metal server systems.

The Pulse Secure vTM appliance image, available as either an ISO image or for PXE installation, is the ideal solution for enterprises looking to deploy ADC and load balancer services on high-performance Intel x86 servers.

Enterprises can take advantage of the latest Intel x86 technology, delivering significant cost savings in procurement and deployment of standardized server architectures.

With the same flexible licensing options as the virtual and cloud editions of the Pulse Secure vTM, the performance can be scaled up within the preferred server platform, and can even scale out between servers and across to cloud platforms within the same Pulse Secure vADC architecture.

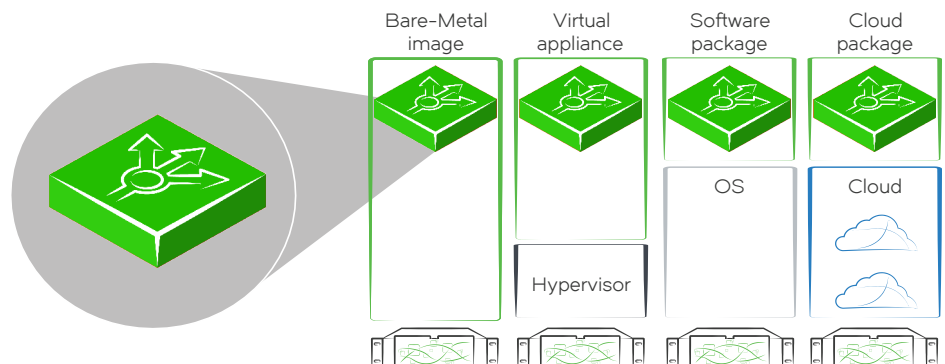


Figure 1: The Pulse Secure Virtual Traffic Manager is now available as a high-performance appliance image for Intel x86 servers.

KEY FEATURES

- Bare-metal ADC and load balancer solution
- Support for high-performance Intel x86 servers
- ISO or PXE for rapid installation
- ADC automation using REST API
- IPMI support for systems management
- Web/Command line access via SSH
- License portability between software/virtual platforms
- Dynamic licensing supported with the Pulse Secure Services Director

RELIABLE SUPPORT OPTIONS

Pulse Secure Essential Support

- Provides 24x7 access to Pulse Secure Technical Support expertise, reducing time to resolution
- Provides unmatched expertise in data center networking to optimize network performance
- Simplifies management through online technical support tools

Feature Summary

Full-Featured ADC Solution

The Pulse Secure vTM is a software-based Layer 4-7 Application Delivery Controller (ADC) designed to deliver a faster, high-performance user experience. This new Pulse Secure Virtual Traffic Manager Bare-Metal Appliance platform brings the same comprehensive capability for enterprises wishing to deploy a high performance stand-alone appliance in the data center or DMZ.

The appliance also serves as a drop-in replacement for legacy hardware load balancer appliances, bringing enhanced Layer 7 services with support for HTTP/2, application-aware scripting, and options for global load balancing, Web application firewall, Web content optimization, and FIPS 140-2 Level 1 security all on a commodity Intel Server Platform.

Flexible Installation

The Pulse Secure Virtual Traffic Manager Bare-Metal Appliance platform is available as a downloadable image that can be loaded onto supported server platforms, either using an ISO image on CD/DVD media or through PXE deployment.

Secure Console

Appliance administration is either via an HTTPS Web interface, or command line via Secure Shell (SSH), serial port, or Keyboard/Video/Mouse. Access to the administration user interface is authenticated with a dedicated SSL/TLS certificate.

IPMI Systems Management

Allows remote management of the server platforms across a cluster, including power, cooling, and temperature data. The status of the underlying server platform can be accessed via the user interface, which interrogates the IPMI management interface. The user interface includes both a basic health indicator for each appliance in a cluster, and details reflected from the IPMI status for each cluster member.

Developer Mode

When installed without a license key, the Pulse Secure Virtual Traffic Manager Bare-Metal Appliance platform supports Developer mode, which enables all of the functionality of Pulse Secure vTM and imposes a performance limit of 1 Mbps throughput. In Developer mode, organizations can use the Pulse Secure Virtual Traffic Manager Bare-Metal Appliance in test and development environments to facilitate the creation and testing of production services. Pulse Secure does not provide technical support for Pulse Secure Virtual Traffic Manager Bare-Metal Appliances in Developer mode.

RESTful Control API

This feature allows the Pulse Secure vTM to be configured and controlled by a remote application and simplifies administration of large and complex configurations. The Pulse Secure vTM Control API enables configuration changes to be automated, for example, in response to an event. This RESTful API is also used by Pulse Secure Services Director to manage dynamic licenses on software and cloud instances of Pulse Secure vTM.

Software Licensing

The Pulse Secure Virtual Traffic Manager Bare-Metal Appliance platform supports all types of licensing for the Pulse Secure vADC family and supports all add-on options, including Pulse Secure Virtual Web Application Firewall and Pulse Secure Web Accelerator.

The license key determines the feature set and capacity of the Pulse Secure Virtual Traffic Manager Bare-Metal Appliance. Initial deployments can start with small capacity, and can be upgraded at any time to match the growth in traffic.

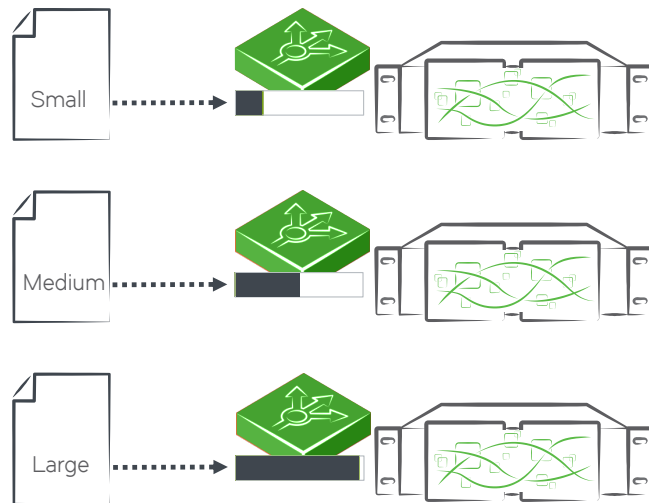


Figure 2: Right-size Pulse Secure Virtual Traffic Manager with a simple license key.

Dynamic Licensing

The Pulse Secure Services Director can also be used as part of a data center-wide deployment, to manage licence bandwidth allocation across Pulse Secure vTM instances, whether bare-metal, virtual appliance or software. The Pulse Secure Services Director keeps track of the overall bandwidth capacity and allows the capacity to be dynamically reallocated to suit workload requirements.

The Pulse Secure Virtual Traffic Manager Bare-Metal Appliance platform is recognized as an externally deployed instance of the Pulse Secure vTM, which allows the Pulse Secure Services Director to license and monitor ADC services and clusters for large-scale applications. This provides organizations with complete elasticity when using either a shared-services or a distributed deployment model.

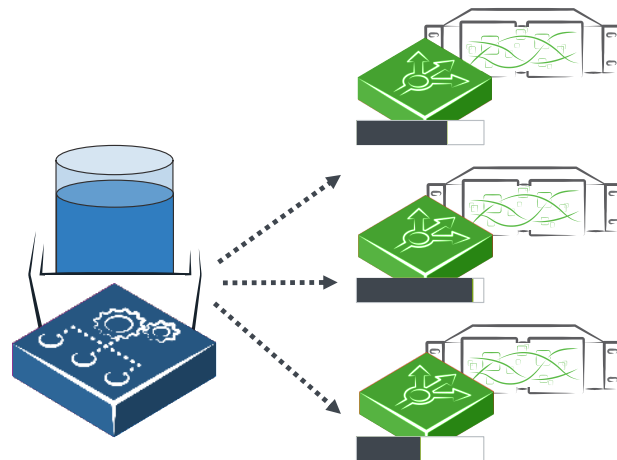


Figure 3: Pulse Secure Services Director can share resources between appliances.

Qualified System Configurations

Pulse Secure Virtual Traffic Manager Bare-Metal Appliance Platform

Server	Dell PowerEdge R730 Server
CPUs	2 × Intel Xeon E5-2640 v3 2.6 GHz, 20 M Cache, 8.00 GT/s QPI, Turbo, HT, 8 C/16 T (90 W)
Memory	128 GB 2133MT/s memory
IPMI/iDRAC	iDRAC8 Enterprise
Supported network daughter cards (one type or another)	Intel X710 DP 10 Gbps DA/SFP+, + I350 DP 1 Gbps Ethernet, Network Daughter Card QLogic 57800 2×10 Gbps BT + 2×1 Gbps BT Network Daughter Card
Supported network data cards (any combination)	Intel X710 Quad Port 10 Gbps Direct Attach, SFP+, Converged Network Adapter Intel Ethernet X540 DP 10GBASE-T Server Adapter
RAID	PERC H730 Integrated RAID Controller, 1 GB Cache
Hard Drive	Minimum: 100 GB (for logging) Recommended: 800 GB Solid State Drive SAS Mix Use MLC 12 Gbps 2.5 in Hot-plug Drive, 13 GB
Power supply	Dual power supplies for redundancy and monitoring

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Maximizing Investments

To help optimize technology investments, Pulse Secure and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Pulse Secure sales partner or visit www.pulsesecure.net.

Corporate and Sales Headquarters

Pulse Secure LLC
2700 Zanker Rd. Suite 200
San Jose, CA 95134
www.pulsesecure.net