

Shunra NV™ Appliances

About Shunra

When deploying applications across WAN, Web, Mobile or Cloud-based networks, risk mitigation and cost avoidance are paramount. Today, 80% of the costs associated with application development occur in remediating failed or underperforming applications after deployment, when the ineffective application has already had a negative impact on the end user or customer experience.

Shunra offers a proactive approach to network virtualization for software testing. The Shunra solution discovers, virtualizes, predicts and analyzes the performance of applications over production network conditions. As a result, Shunra delivers customized performance insight, enabling pre-production remediation and optimization, and confidence in application performance prior to deployment.

Shunra is the industry-recognized authority in network virtualization for software testing, offering over a decade of experience with some of the most complex and sophisticated networks in the world.

Today's networks, built on top of Ethernet, IP and MPLS services, require a network virtualization solution for software testing that combines high-performance, flexible network modeling, test automation and integrated application performance analysis.

The family of Shunra NV™ Appliances continues to lead the market with high-performance, scalable network emulation that brings the behavior of a production network into a controlled lab environment. An NV Appliance can help ensure service levels are met as applications scale and complexity increases across the production network.

Whether you're rolling out mobile applications, managing a significant data center consolidation project, planning the deployment of a business-critical application like SAP or SharePoint, or adopting WAN Optimization technology, including network behavior in your application performance testing is a requirement for reliable and successful testing.

Shunra offers appliances that range from several 10/100 Ethernet interfaces to support for 10Gbps service interfaces. Shunra's Network Virtualization Appliances can function in an "east west" tunnel mode; a unique switching architecture supports flexible network topology emulation that provides any-port-to-any-port Layer 2 switching, and static, RIP or OSPF Routing; and Shunra's appliances provide built-in, intelligent packet capture buffers that enable deep application analysis.

All Shunra Network Virtualization Appliances support a user-friendly Web GUI for basic Network emulation testing, and several teams can share a single appliance and run independent emulations in parallel. The appliances feature easy-to-use network modeling, test automation and application performance analysis.

Shunra NV™ Appliances

Shunra supports three appliances that can all be customized to meet specific enterprise and business unit testing needs:

- Shunra Wildcat
- Shunra STA-Bobcat
- Shunra STN-Tomcat

Shunra appliances also support Shunra NV solutions that enhance your discovery, testing and analysis efforts, including:

- Shunra NetworkCatcher
- Shunra Global Library
- Shunra NV Analytics

About Network Virtualization for Software Testing

Network conditions such as latency, limited bandwidth, packet loss and jitter are critical factors that must be taken into account when testing applications.

Network virtualization enables connections between applications, services and end users to be accurately emulated in the test environment. In the absence of these production conditions, testing will yield unreliable as the effect of the network on transactions remains unaccounted for.

Best Practices for Software Testing

Discovery

Identify and record production network conditions, business processes, application topology and deployment scenarios.

Virtualization and Testing

Virtualize production conditions, including users, services and network impairments, to accurately emulate user experience. Integration with automation, load and functional testing tools enables reliable single-user and multi-site/multi-user testing.

Analysis and Optimization

Thoroughly analyze test results to identify potential bottlenecks, validate performance and ensure SLO compliance before deployment. Implement recommended optimization strategies to improve performance and ensure a positive user experience.

Key Specifications

Maximum Port Density	Wildcat	STA-Bobcat	STN-Tomcat
10/100 Ethernet	10 or 12	24	12
1Gb Ethernet	10 or 12	24	12
10Gb Ethernet	2	2	0

Bandwidth Emulation

Up to 100 Mbps	✓	✓	✓
Up to 1 Gbps	✓	✓	✓
Up to 10 Gbps	✓	✓	✓

Traffic Type Supported

IPv4 / IPv6	✓	✓	✓
Broadcast / Multicast	✓	✓	✓
VLAN	Advanced	Advanced	Standard
DHCP	✓	✓	✓
MPLS	✓	✓	✓
Layer 2 (Ethernet)	✓	✓	✓
PPPoE	✓	✓	✓
Jumbo Frames (up to 9000 bytes)	✓	✓	✓

Packets and Packet Capture

Packet capture buffer	1Gb	1Gb	100Mb
Maximum packets during emulation	981K	1.5M	500K

General Specifications

Dimensions - H x W x D (inches)	5.25 x 17.637 x 16.275	3.5 x 19 x 14	3.5 x 23.7 x 16.7
Weight (standard configuration)	40 lbs	22 lbs	26.5 lbs
Rack mount	3U	2U	2U
Power	100-240 VAC, 47-63 Hz	110-240 VAC, 50/60 Hz	110-240 VAC, 50/60 Hz
Series communications ports	Proprietary cable	RS-232	Com (over RJ45)
Management port	10/100/1000 Fast Ethernet	10/100 Fast Ethernet	10/100 Fast Ethernet
Redundant power supply	Optional	Not available	Not available



For more information, visit www.shunra.com.