

SOLUTION BRIEF

PacketRanger™

The intelligent packet broker that drives management application savings, reduces network congestion, simplifies network administration, and improves data-driven decision making via embedded analytics.

The Challenge

Does your business face any of the below challenges?

- Increased expenditures on licensing fees due to massive telemetry and log data growth.
- OSS / management applications' performance deterioration forcing expensive capacity expansion.
- Compliance requirements that force long term storage of low value data in expensive storage locations.
- Lack control of high volume UDP data that cause inefficiencies within Network and Security operations.
- Desire to be more proactive with network issues, but continuously struggle with reactive network troubleshooting.
- Quality of service issues and performance degradation in your network(s) due to telemetry / log data that compete for the same network resources.
- Rising network administration costs because of network moves, adds, changes, and deletes.

Tavve Solution

PacketRanger™ is an out-of-band UDP traffic broker that serves as a central collector of telemetry and log data generated by flow capable networked devices. A single PacketRanger is capable of ingesting 50,000 packets per second while replicating and forwarding up to 200,000 packets per second so that multiple destinations can receive the appropriate management data based on an organization's requirements.

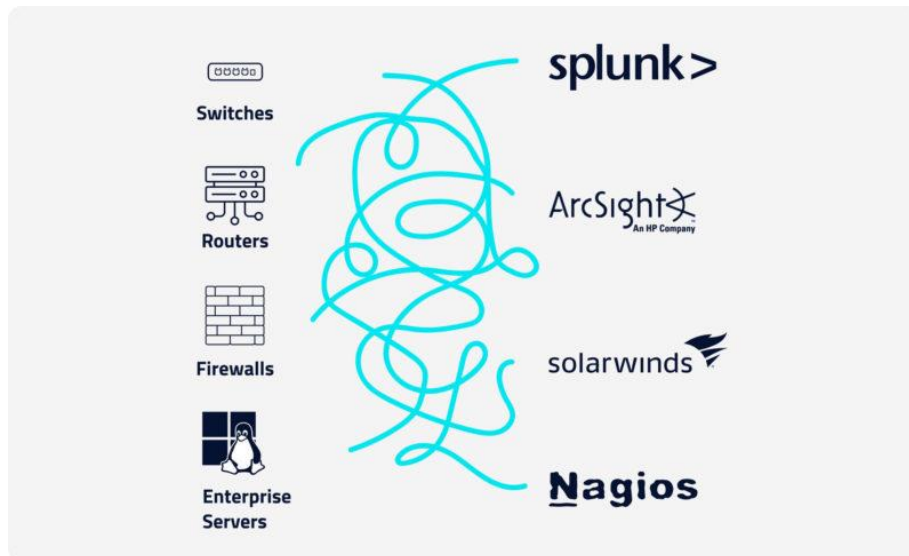


Tavve Advantage

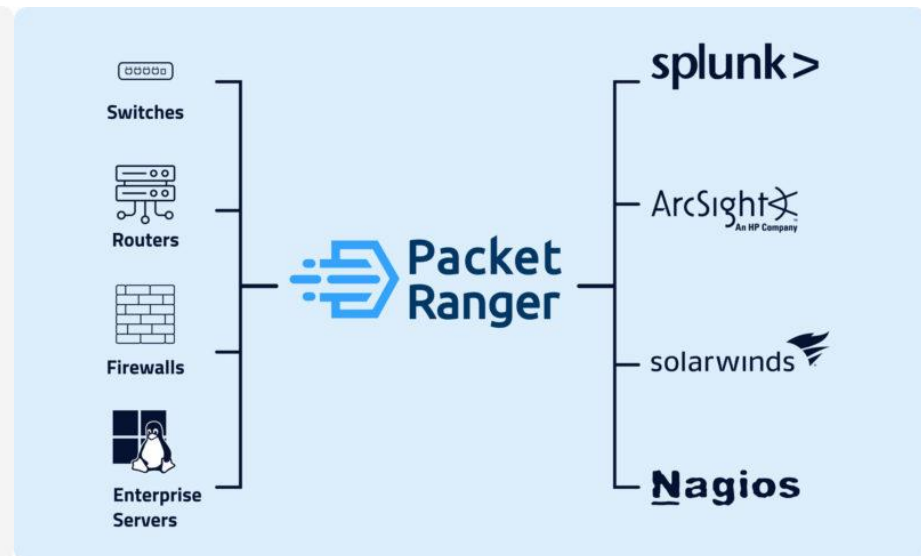
PacketRanger distinguishes itself from other UDP traffic brokers with its embedded intelligence. Traditional solutions are mostly limited to forwarding and replicating UDP traffic, effectively forcing an organization to find workarounds or acquire different solutions from their wider portfolio to achieve their network monitoring and management objectives. PacketRanger continues to be enhanced with new features driven by our customers' needs:

- Superior ingress/egress throughput without packet size limitations
- Unlimited number of forwarding rules
- UDP traffic filtering including NetFlow, Syslog, and Traps
- Statistical Analysis for enhanced network observability
- Visibility with a machine-learning-first approach for early detection of IT, application, and potential security threats
- N+1 redundancy
- Integration with Kafka
- Cloud instance of PacketRanger
- Load balanced destinations

Without PacketRanger



With PacketRanger



PacketRanger's Key Features

Flexible Data Forwarding

The PacketRanger™ offers unparalleled Flexible Data Forwarding (FDF), empowering enterprise scalability for ingress and egress of mission-critical management data. PacketRanger's™ unique FDF allows for:

- Unlimited upstream data sources.
- Unlimited endpoint devices.
- Easy to define “exclude” rules for filtering out noise.

Statistical Analysis

PacketRanger's™ Statistical Analysis brings a unique view to management traffic by visualizing aggregated traffic by its type, and the data received, processed, forwarded, and discarded, with the capability to drill down into the contributing traffic patterns by source and destination device, port, and protocol.

- Quickly identify the most talkative devices on the network.
- Visually detect trap storms and app misconfigurations.
- Easily identify low value traffic and tailor forwarding rules to more efficiently distribute and sort traffic.

Covered Data Types

- All flow variants (NetFlow, sFlow, IPFIX, etc.)
- SNMP
- Syslog
- Generic UDP



How PacketRanger Can Help

Simplify Telemetry and Log Data Aggregation

Streamlines log aggregation to provide:

- Easier proofs of concept
- Acceleration of innovation
- Reduced MTTR (mean time to resolution)
- Easier troubleshooting / root cause analysis
- Flexible data forwarding
- Simpler move, add, changes, and deletes

Reduce Network Noise

Cuts through the chaos with statistical analysis to:

- Reduce costly noise by routing low value logs to deep and cheap storage
- Reduce long-running queries by eliminating superfluous noise in SIEMs and ITOA systems
- Enhance early detection of potential IT and application security threats
- Improve network and security operations workloads by removing monotonous and low-value tasks

Realize Savings

Simplifies log aggregation and reduces noise to:

- Lower TCO of logging platforms
- Simplify migration to new IT platforms
- Reduce network administration overhead
- Prevent expensive management application capacity upgrades
- Avoid expensive hardware refreshes in existing SIEM systems

PacketRanger Feature Enablement

1

Improved Observability

Statistical Analysis enables better/faster network management troubleshooting (e.g. visualizing growing trap storms, etc)

2

Improve Management Application performance

Improve query times without additional capacity expansion investments.

3

Replace Legacy UDP Directors

Superior Throughput and Intelligence shrinks footprint and annual cost.

4

Avoid Vendor Lock-In

As management applications receive management traffic via PR, network devices do not have to be reconfigured when changing/replacing management applications

5

Reduce Management Application Costs

Avoid storing massive amounts of data in applications such as Splunk instead of alternative lower cost locations.

6

Reduce Network Administration Costs

All management traffic is sent to PR resulting in simplified network device configuration / Reduced Change Management effort with devices are removed – changed – added.

Virtual Machine Recommended Resources:

Product	Packet Input Rate	Packet Output Rate	Operating System	CPU	RAM	Storage
PR-10	10,000 pps	200,000 pps	Hardened Linux	6 Core	8GB	200GB
PR-25	25,000 pps	200,000 pps	Hardened Linux	8 Core	12GB	200GB
PR-50	50,000 pps	200,000 pps	Hardened Linux	16 Core	16GB	200GB

Hardware requirements:

- Keyboard and monitor or laptop with terminal emulation
- Cat 5e or higher Ethernet cable
- The PacketRanger NICs only support the following speeds: 1GB and 10GB. The PacketRanger must be connected to a switchport that supports one of these speeds.

The PacketRanger VM was built with VMware virtual hardware version 9. Please see <https://kb.vmware.com/s/article/1003746> for a table detailing the list of VMware products and their virtual hardware version the support hardware version 9. The PacketRanger VM is supported by any VMware product that supports virtual hardware version 9 or higher.

“We are using PacketRanger [dashboard and traffic stats] everyday. It takes less than 10 seconds to answer incoming questions. It is truly beneficial, the PacketRanger provides so much information we can use. Tavve will be our packet handlers for the foreseeable future.”

Senior Systems Engineer – Top 5 USA Health Insurance Company

For more information about Tavve PacketRanger

- visit <https://tavve.com/packet-ranger>
- email us at sales@tavve.com

