

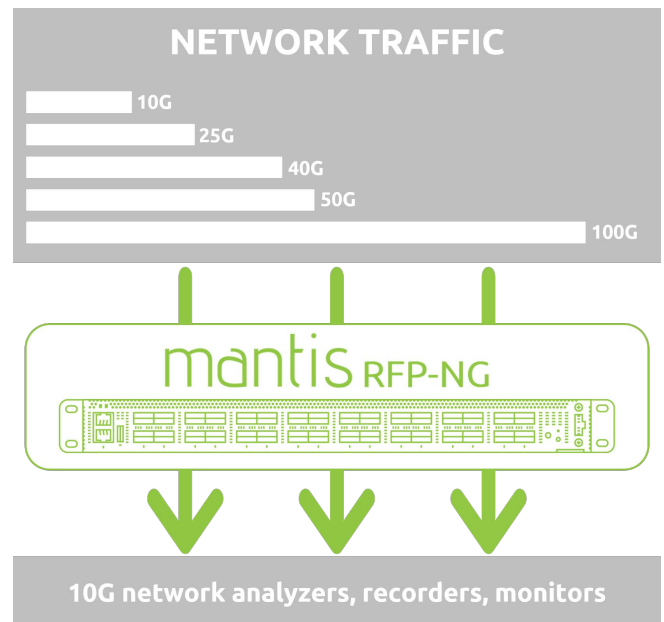
Overview

RFP-NG | Reconfigurable Frame Processor-Next Generation Network monitoring for 10/25/50/100G

Monitoring high-speed network links

(25/40/50/100G) is an extremely difficult task. The sheer number and speed of packets found within these networks overwhelm monitoring tools available today- tools that were designed to ingest 1G, and if budgets happened to be favorable, 10G at best. With high-speed links becoming more and more common, network professionals are now faced with a very challenging question: how do I monitor this traffic with only 10G tools?
Enter the Mantis RFP-NG

The **mantis RFP-NG** is a 1U appliance that helps network engineers bridge the gap between high-speed networks and lower speed 10G network analyzers. The RFP-NG is a (32) port, QSFP28-based device that is capable of monitoring 10/25/40/50/100G links at line-rate. To do so, the device ingests multiple high-speed network links, and provides a real-time copy of traffic of interest to one or multiple 10G ports for analysis.



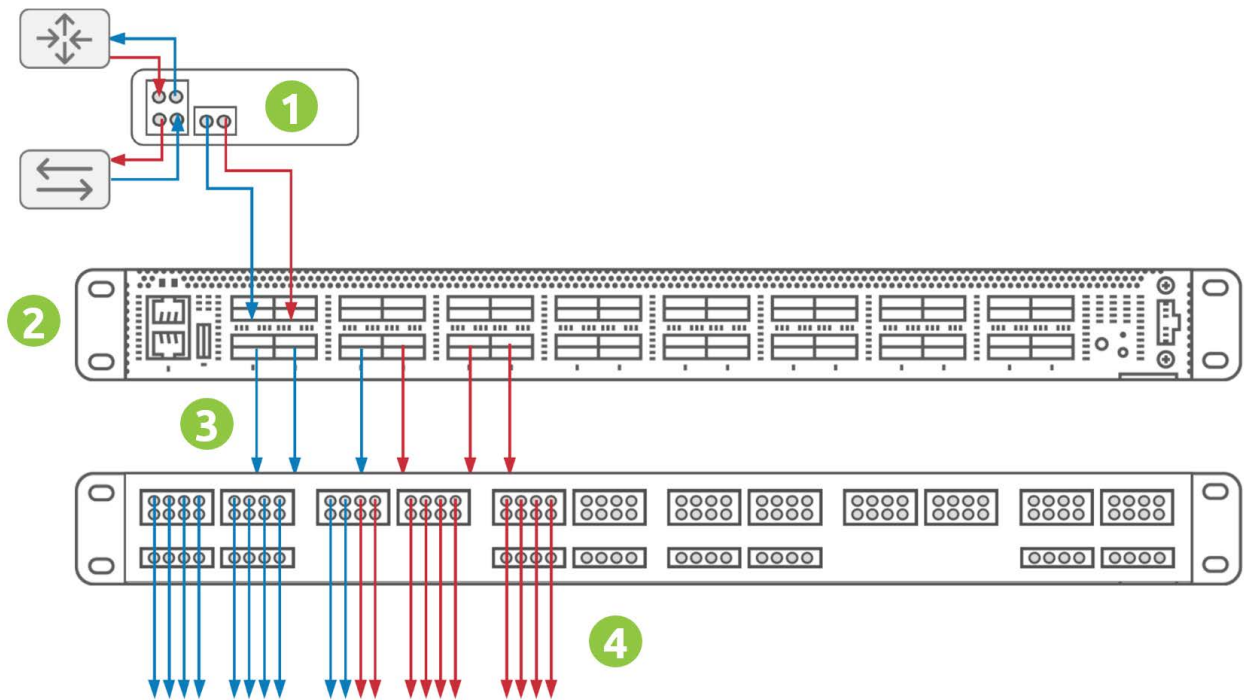
Key Features

- (32) 40/50/100G QSFP28 Ports or (128) 10G LC
- Each port can be configured as 4x10G or 4x25G via breakout cable
- 100% visibility in to high-speed network traffic
- Symmetric, flow-aware load balancing: 100G to 10G
- Line-rate filtering: Monitor traffic of interest on high-speed networks with 10G tools
- Any-to-Any, Many-to Many, Port Mapping



Use Case | Load Balancing

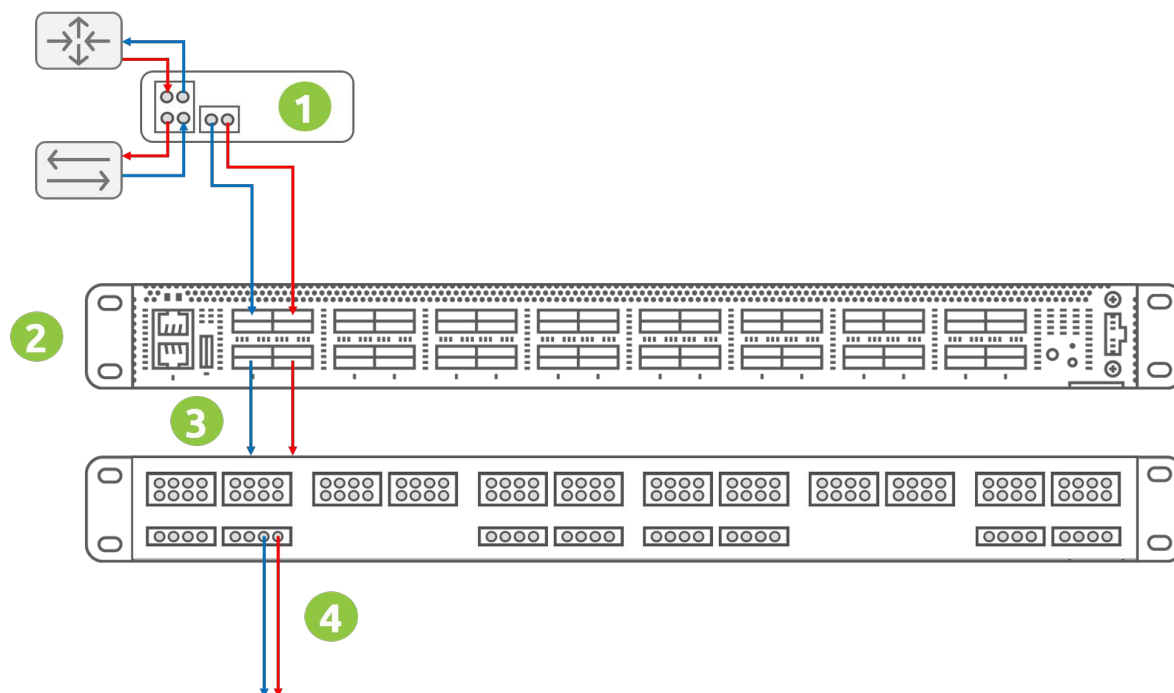
The RFP-NG can be used to load balance 100G traffic across multiple 10G tools....



- 1 A passive optical TAP is used to direct a copy of both the 100G TX (blue) and 100G RX (red) in to separate ports of the RFP-NG
- 2 Internally, the RFP-NG load-balances each 100G input across three 40G egress ports
- 3 The 40G egress ports connect to the RFP-NG Distribution Panel for 40G to 10G rate conversion
- 4 The original 100G link is now balanced across multiple 10G ports, to be sent to one or more 10G analyzers for correlation and analysis

Use Case | Line-rate filtering

The RFP-NG can be used to filter 100G traffic, at line rate

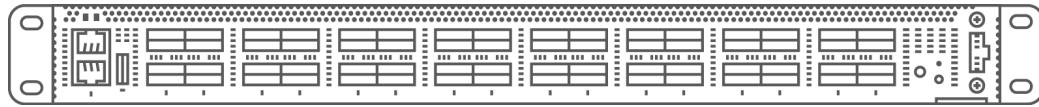


- 1 A passive optical TAP is used to direct a copy of both the 100G TX (blue) and 100G RX (red) in to separate ports of the RFP-NG
- 2 Internally, the RFP-NG filters out traffic of interest (~10% of the total 100G link, in this example), and sends along to 40G egress ports
- 3 The 40G egress ports connect to the RFP-NG Distribution Panel for 40G to 10G rate conversion.
- 4 The original 100G link has been filtered at line rate, and is now coming out of the Distribution Panel via two 10G ports (one for east, one for west). ****Important to note: step 2 determines how many 10G ports will be required to handle the filtered traffic. If the filtered traffic exceeds more than 10% of the network link, multiple 10G ports will be needed. Customers have the flexibility to tune filters in order to achieve desired 10G egress port counts.*

**Wire-speed,
user-definable
filters**

L2-4 filtering for 100G traffic:

IP Address, MAC address, TCP, UDP, MPLS, IPv4/IPv6, source and destination, network protocol (HTTP, VoIP, FTP, DNS, DHCP, etc.), VLAN, packet attributes...



RFP-NG

Functional Specifications

	RFP-NG
1 GIG Copper/RJ-45	n/a
10 GIG ports	(128) via breakout panels
100G QSFP28 Ports	(32)
Switch Fabric Capacity	3.2 Tbps
Supported Optics	40GBASE-CR4, 40GBASE-SR4, 40GBASE-LR4, 100GBASE-CR4, 100GBASE-SR4, 100GBASE LR-4
Forwarding Rate	4.7 Bpps
Management Port	1 x RJ-45 serial console port to BMC 1 x RJ-45 100/1000BASE-T management port

Physical, Environmental, and Power Specifications

	RFP-NG
Power Supply Redundancy	Yes- Hot Swappable
Air Flow	Front to Back
Dimensions	(WxDxH): 17.32 in x 19.97 in x 1.732 in)
Weight	19.56 lb
Input Voltage / Frequency	120 to 240 VAC at 50-60 Hz. 40 to 72 VDC
Operating Temperature	0°C to 45°C (32°F to 113°F)
Operating Humidity	10% to 90% non-condensing
Typical Power Consumption	436 W
Environmental	Temperature: IEC 68-2-14 Vibration: IEC 68-2-36, IEC 68-2-6 Shock: 68-2-29
Safety	UL/CUL, CB
RoHS	Yes