MantisNet

100G (and below) NETWORK MONITORING

The high-speed "dilemma"

We find ourselves in an world where network speeds have reached the status of "downright impressive". High-speed links are becoming more common across enterprises, with network professionals deciding how best to blast packets of information from point A to point B. Is 40G going to cut it? Can we afford to jump 40 and invest in 100G? What about 25 and 50G?

Be it 25,40,50, or 100G, these network speeds share one thing in common- they are extremely difficult to monitor. The sheer volume and speed of packets found within these networks overwhelm monitoring tools available today- tools that were designed to ingest 1G traffic, 10G traffic at best.To make a tough problem harder, the vendors providing these monitoring tools have not embraced higher-speed offerings. We still find ourselves in a network monitoring world where device ingest rates hit the ceiling at 10G line-rate. That just isn't going to cut it.

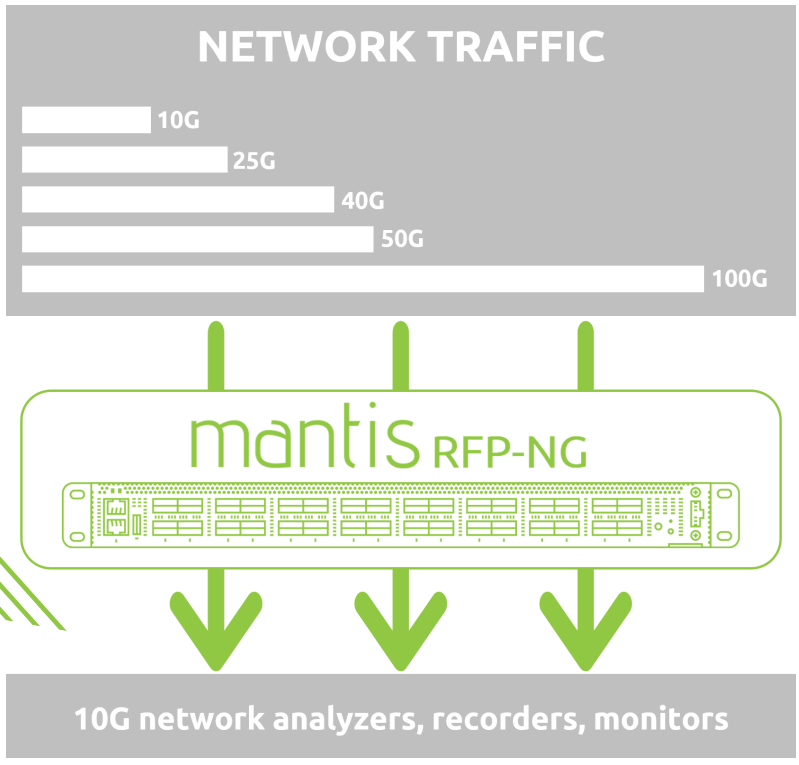
Enter the RFP-NG

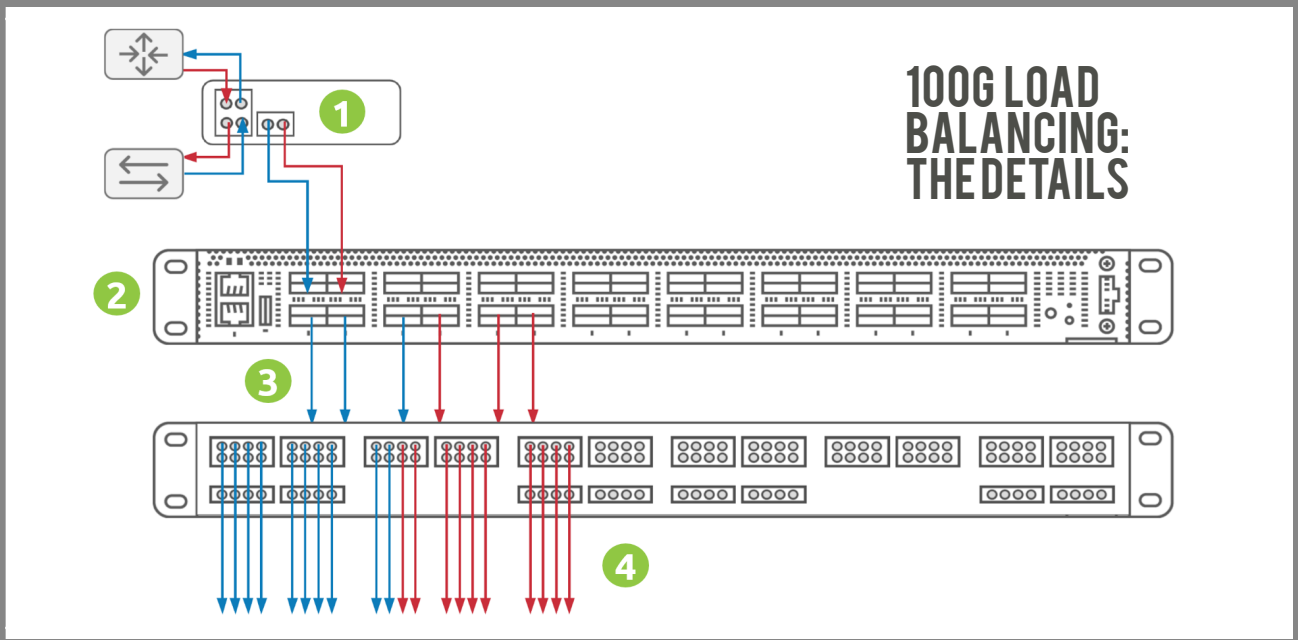
The MantisNet Reconfigurable Frame Processor Next Gen is a 1U appliance that helps network engineers bridge the gap between high-speed networks and lower speed 10G network analyzers. The RFP-NG is a (32) port, QSFP28 based 1U appliance that is capable of monitoring 10/25/40/50/100G links at line-rate.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

The MantisNet RFP-NG

Inspecting and monitoring traffic on high-speed networks is a non-trivial task. As described above, the biggest challenge is the difference between actual network speeds and the ingest rates of tools designed to monitor them. However, there are two different ways that organizations can address this challenge- 1) through implementing a high-speed load balancing probe, and 2) through the use of a line-rate filtering probe.

The diagram below describes how the mantis RFP-NG can be used as a **high-speed load balancing probe**. The main difference between load-balancing and filtering is that load-balancing is the only way to achieve 100% visibility in to ALL network traffic.





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

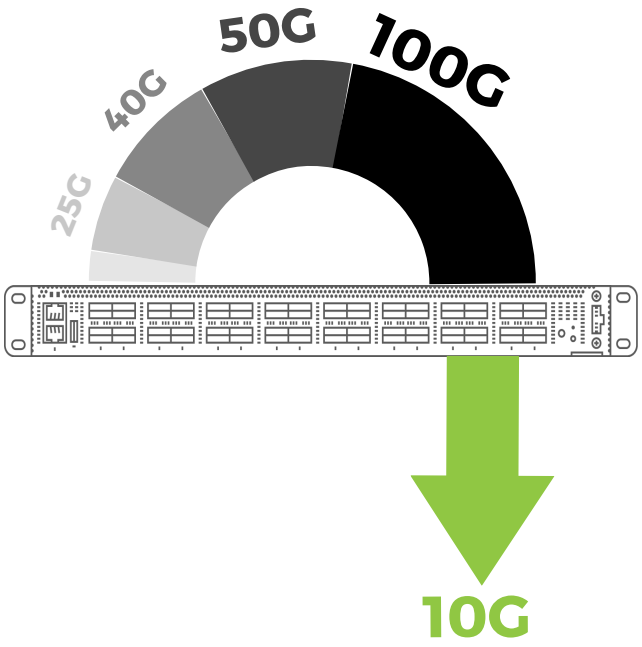
3 The 40G egress ports connect to the RFP-NG Distribution Panel for 40G to 10G rate conversion

4 The original 100G link is now balanced across multiple 10G ports, to be sent to 10G analyzers for correlation and analysis

MantisNet RFP-NG

a high-speed load balancing probe...

- Visibility in to high-speed network traffic
- Capable of monitoring 10/25/40/50/100G traffic
- 100% visibility in to all packets on the network



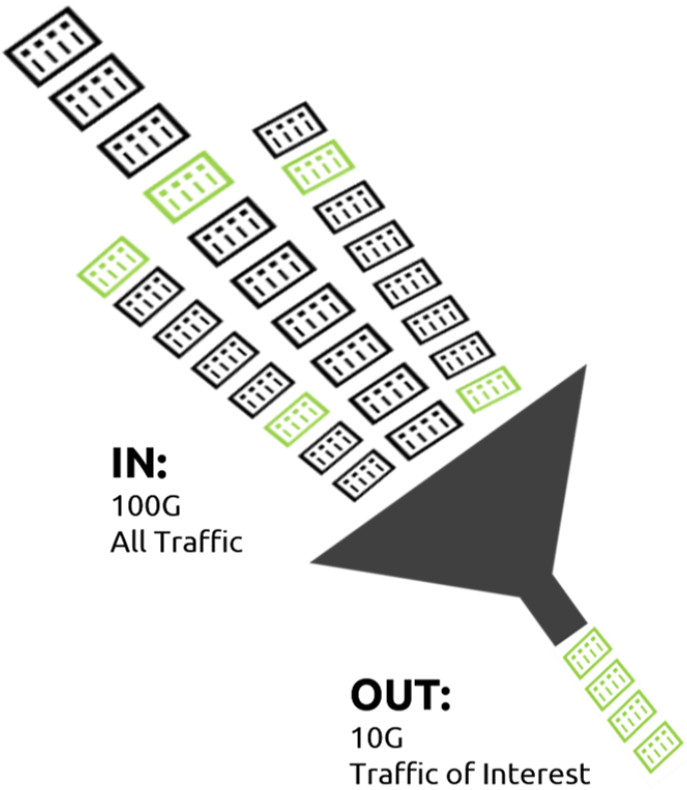
more than just a high-speed load-balancer...

The MantisNet RFP-NG is more than just a high-speed load balancing probe....it also provides line-rate filtering for speeds up to 100G. With the use of line-rate filtering, network engineers can "filter out" unnecessary network traffic, and "hone in" on the exact types of traffic that need to be presented to their 10G analytic tools.

With the MantisNet RFP-NG, network engineers can utilize a different approach to analyze high-speed traffic...filtering the data. With this approach, organizations can squeeze down the size of 100G pipes to fit in to 10G tools, while also increasing the relevance of the data being sent to the tools.

Filter Traffic by:

- Network protocol
- IP address
- MAC address
- Source/destination
- IPv4/IPv6
- Specific VLANs
- Packet attributes



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