# HOW TO USE MIRROR FUNCTION OF EXA32100A/EXA64100

CUBRO
NETWORK VISIBILITY
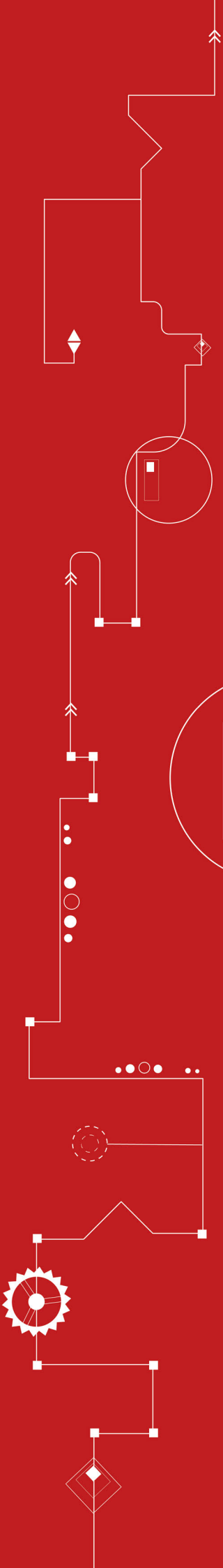
Introduction

The Cubro EXA32100A/EXA64100 Advanced Network Packet Brokers (G5+ series) are primarily utilized for processing high-volume network traffic to prepare the traffic to be best utilized by monitoring probes and analytic systems. Specifically, it allows to aggregate, filter and remove tunnels of incoming traffic and to send traffic out as it is required by external systems.
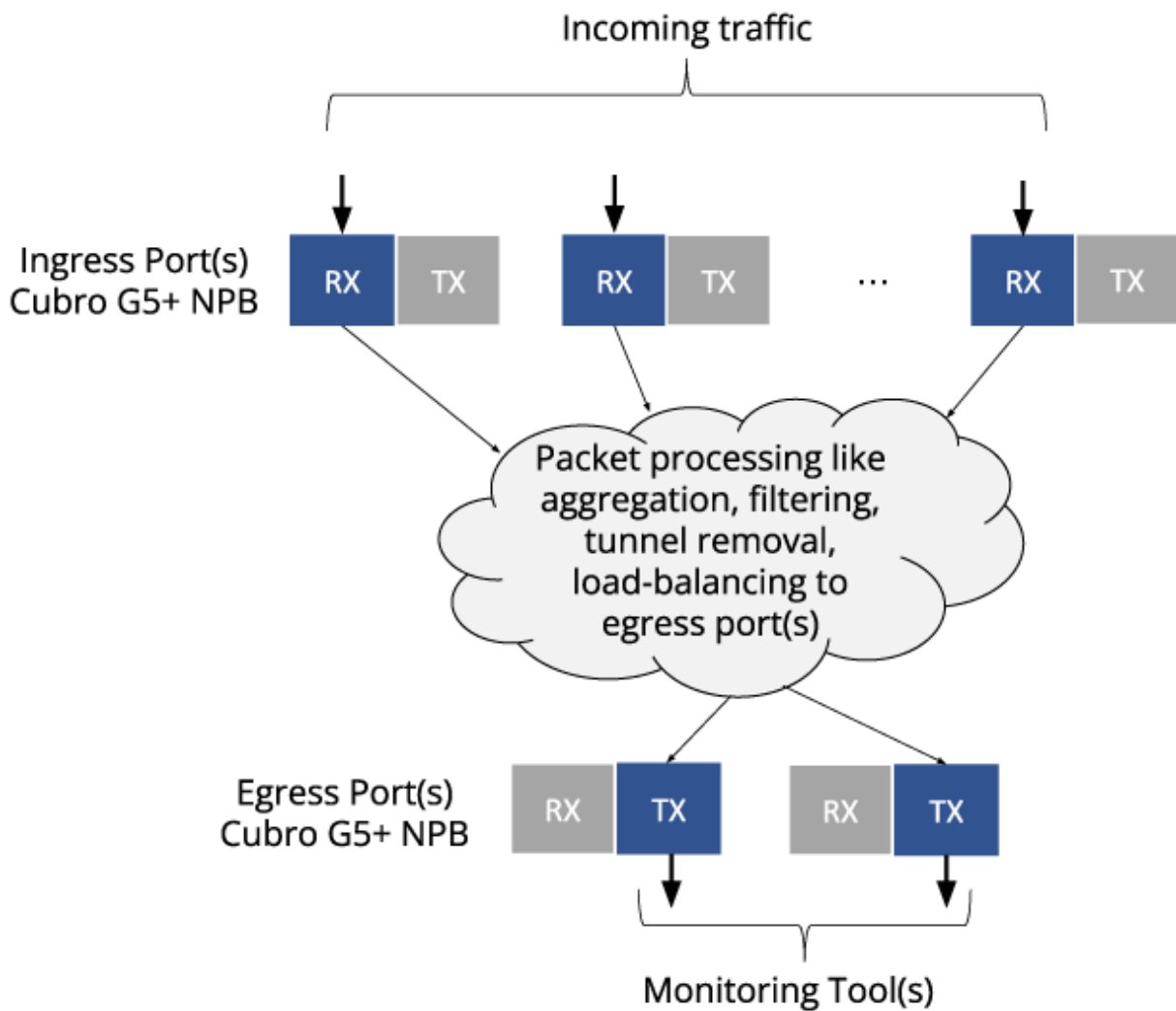
However, for troubleshooting purposes, it is often necessary to have a raw capture of the original input or output traffic to verify its correctness. This application note highlights the various ways to access the traffic and produce capture files using the Cubro G5+ series.

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Use of Mirror Sessions

The EXA32100A/EXA64100 Advanced Network Packet Brokers support mirror sessions, which means that the original incoming or outgoing traffic can be mirrored out (copied) to any port.
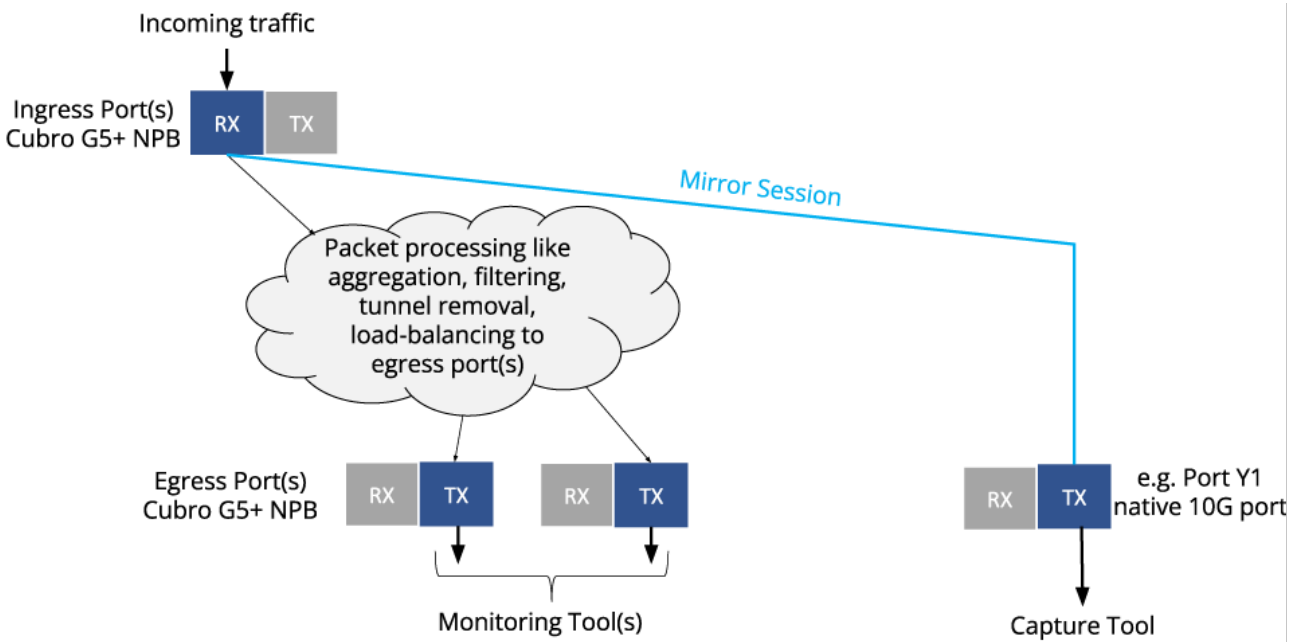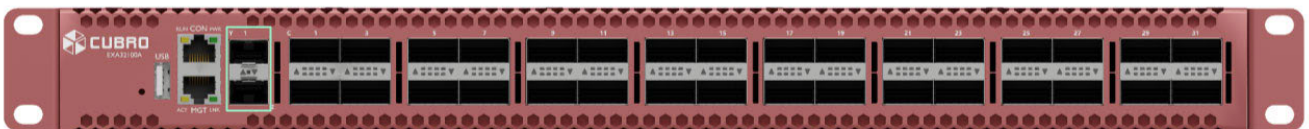

With the Cubro G5+ series, there are two native 10G/25G ports (Y1 and Y2) that can be utilized to connect a capture appliance directly via 10G or 25G.

As the mirror destination is configureable the capture tool can also be connected via a 40G/100G interface of the EXA32100A/EXA64100.

The source of the mirror session can also be defined to be an output port so that outgoing traffic can be fed to a capture appliance without disturbing the original traffic flow.
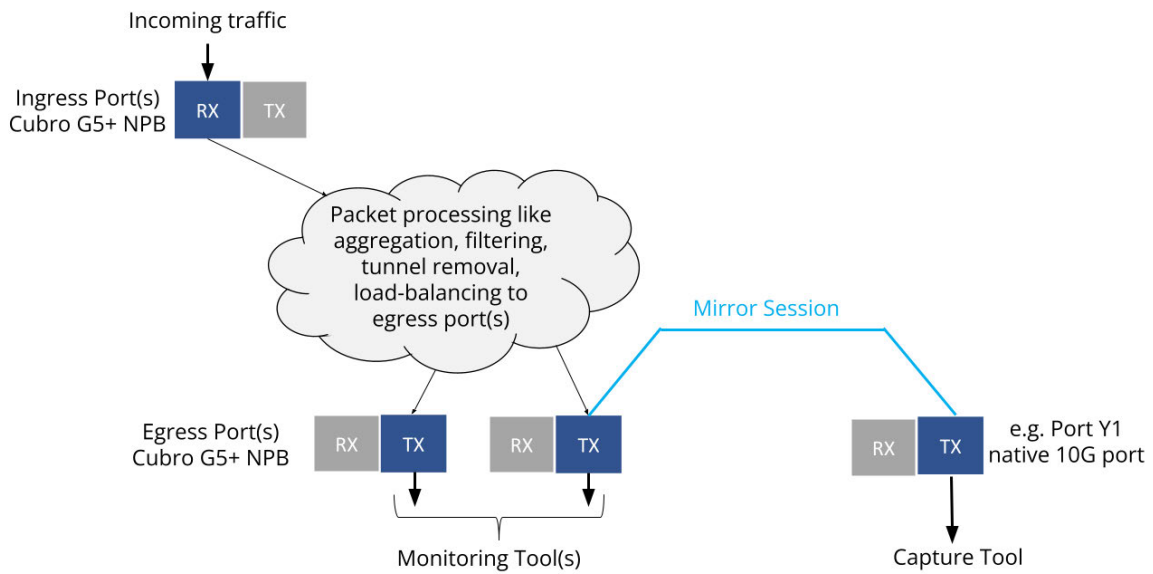

Traffic filtering to reduce traffic to capture appliance

In many cases, only a subset of incoming or outgoing traffic, such as a specific IP subnet range or a VLAN ID, needs to be captured. An unfiltered and full capture might overload the capture appliance, and therefore, it makes sense to forward only specific information to the capture appliance while original traffic processing to the monitoring probes is not affected. By combining the mirror function, loopback port functionality and the powerful filtering capabilities of the EXA32100A/EXA64100, the traffic that is sent out to the capture appliance can be easily reduced while original traffic handling is not disturbed.
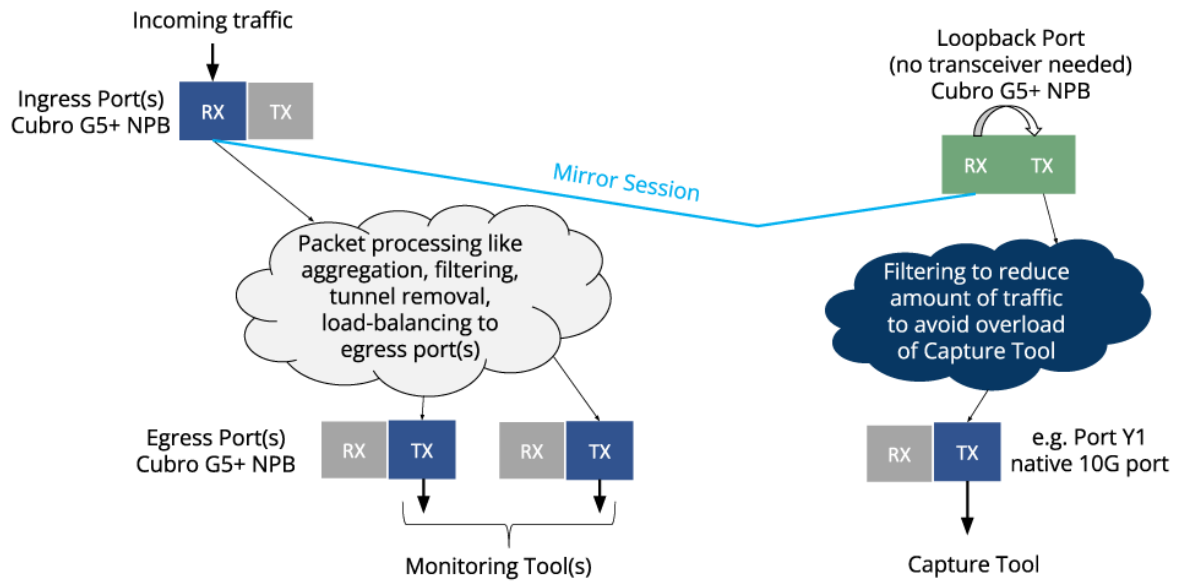
In above scenario the mirror destination is a loopback port and from loopback port the traffic is sent via filtering rules to the capture tool. All the powerful filtering possibilities of the EXA32100A/EXA64100 like MAC/IP Addresses, Protocol, Layer 4 Port Numbers, VLAN IDs or VXLAN tags are available without any restrictions. Moreover, filtering inside tunnels like GRE or VXLAN is also supported. As a result the capture tool only receives traffic that is of interest without being in danger to overload the capture tool.

Here is a screenshot showing filtering for IP Subnet 172.16.38.1/26 and VLAN ID 1096.

Summary

During the troubleshooting process, traffic capturing of original incoming and/or outgoing traffic is often required. The Cubro G5+ series of Advanced Network Packet Brokers offers all the functions to comply with this task. The easy-to-configure mirror sessions allow forwarding of original incoming or outgoing traffic to a capture appliance. As the Cubro G5+ series supports native 10G/25G interfaces, the capture appliance can be directly connected. Additionally, the loopback functionality and powerful filtering methods can be utilized to reduce traffic and avoid overload.