Cubro Packetmaster EX 484-3

Version 1.1 June. 2015

The Packetmaster EX 484-3 is a modern Network Packet Broker and network controller switch that aggregates, filters and load balances network traffic sent to network monitoring, security and management tools. Packetmaster EX 484-3 allows you to filter and load-balance traffic from 10 or 40-Gbps link to multiple 1-Gbps monitoring tools or aggregate multiple 1-Gbps links to 10 or 40-Gbps monitoring tools. Packetmaster EX484-3 also supports traffic modification as well as changing,removing and adding VLAN‘s.

No additional software costs all applications included in the unit price.

Extended Function:

The management host controller of every EX unit runs a full featured Debian Linux as operating system. On this host script languages like Python, Perl, TC L, or simple Linux shells are available to run 3rd party applications to extend the function of the Packetmaster. These applications can be developed by Cubro or the customer.

Examples:

A python script reads files from a server and sets filters based on this changing data.

A python script changes the filters based on link load informationes from a other packetmaster.

A shell script pings different devices and changes filter rules based on ping response.

Functions & Features

Link/Port Aggregation

Aggregation many to any, and any to many at all link speeds

40 Gbps traffic demultiplexer

If highly loaded 10 Gbps links have to be monitored the traffic can be easily demultiplexed into 24 low traffic Gbps links.

Jumbo Frame Support

The Packetmaster supports jumbo Ethernet frames with a size of up to 12000 Bytes.

Ports

48 x 10 Gbps / 1 Gbps
6 x QSPF+ 40 Gbps
1 x 10/100/1000 Base-T (Management)
1 x RS232 Console

Configuration / Communication

Telnet and SSH

Bandwidth

1280 Gbps backplane
1500 million Packets per sec

Aggregation latency

Average 1 µs for 64-byte frames

MTBF

198,185 hours

Power Versions

230 VAC in single and dual power supply versions available.

Operating Temperature

0 to 45°C

Operating Humidity

90% maximum relative humidity

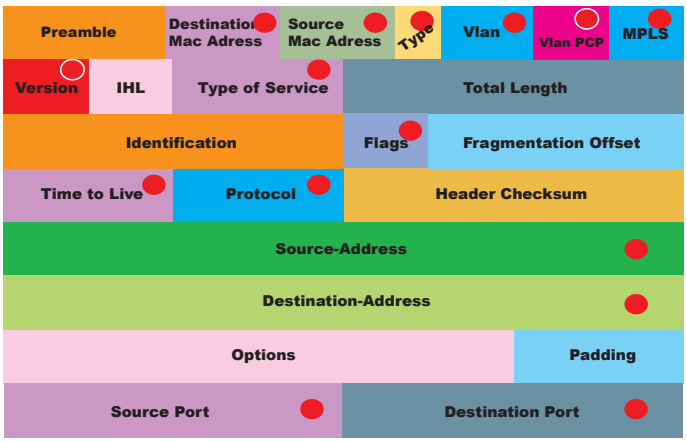
Dimension

W=435.00 mm, L=393.70 mm, H=42.80 mm

General Functions

Aggregation: Traffic aggregation from many input ports to one or many output ports. This works also with different link speed up to 40 Gbps.

Filtering: 2048 flow rules (filters) can be set in the unit.



The red dot marked fields can be used as a match for a packet, stand-alone, combined or with wild cards. For IP Src and IP Dst super nets are supported.

Available actions functions after a positive match are:

Send out: to one or more ports - even the same as the input is possible.

Drop: delete the specific packet
Modify: modify specific fields in the matched packets, VLAN, MPLS, MAC SRC, MAC DST, PORT, VLAN Priority and some more.
Add VLAN: The unit can tag a VLAN on the input to separate the traffic after aggregation
Strip VLAN: VLAN can be removed, Q in Q is supported
Add MPLS: Add an MPLS Tag to a matched packet
Strip MPLS: Remove an MPLS Tag from a matched packet
Stacking of rules: this function gives the option to generate very complex filter rules.

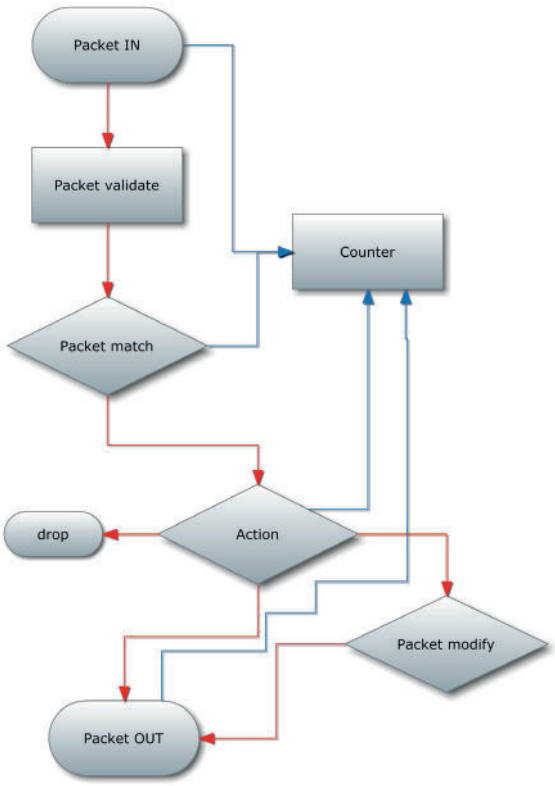
Lifetime of rules: Rules can be set with a live time counter, if the counter becomes 0 the rule will be removed automatically

Generate nFLOWS and sFLOWS CDRS:
The EX484-2 can send standard nFlow or sFlow CDRS to a collector devices to monitor the traffic processed by the EX 484-2. These devices can produce graphs and snmp traps for northbound signalization.

GRE/VXLAN Tunnel support: The device can work as end device for a GRE/VXLAN tunnel, for back hauling applications.
Load balancing: L2 / L3 hash based load balancing, up to 10 load balancing groups.

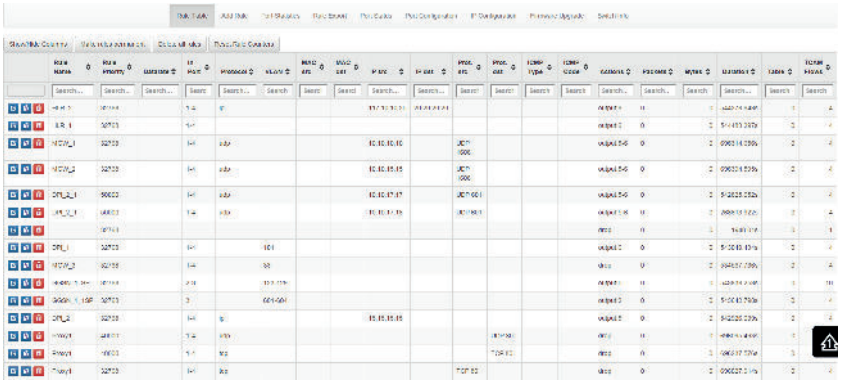
AAA Radius support: user identification

Stacking of units: one Packetmaster can control several other Packetmasters. This gives the possibility to extend the amount of ports per unit.



Technical Data

48 x 1/10 Gbit SFP 6 x 40 Gbit QSFP



Operating Specifications

Operating Temperature: 0ºC to 40ºC
Storage Temperature: -10ºC to 70ºC
Relative Humidity: 10% min, 95% max,
Non-condensing

Mechanical Specifications:

Dimensions (H x W x D): 42.8 x 435 x 393.7 mm
Weight : 9.4 kg

Electrical Specifications:

Input Power: 100-240V, 2A, 47-63Hz
Maximum power consumption: 350W

Certifications

Fully RoHS compliant
CE compliant
Safety:
UL 60950-1 / CSA C22.2 60950-1-07 / IEC 60950-1 (2005)
EN 60950-1 (2006)

Inputs*

48 x 1 Gbps / 10 Gbps full duplex
SFP Ports for any kind of SFP/SFP+

6 x 40 Gbps full duplex QSFP Ports
for any kind of QSFP/QSFP+

* Each port can be input and / or output
depending on the application
and configuration

Outputs*

48 x 1 Gbps / 10 Gbps full duplex
SFP Ports for any kind of SFP/SFP+

6 x 40 Gbps full duplex
QSFP Ports for any kind of QSFP/QSFP+

* Each port can be input or / and output
depending on the application
and configuration

Performance

Performance up to 1280 Gbps

1500 million packets/sec

Non blocking design

Boot time from power on to working 180 sec.

Packet delay through processing
less than 1 µs

Management

Management Port: (1) RJ45 10/100 Mbit
Configuration (CLI) Port: (1) RS-232 DB9
Micro USB for Update

Indicators

Per RJ45 port: Speed, Link/ Activity
Per SFP+ port: Status, Rx, Tx, Link
Per device: Power, Status

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