

MMT Load Balancer

MMT-LB (Montimage Monitoring Tool - Load Balancer) is a network and application traffic load balancer or network traffic splitter that can be used to separate network traffic according to the traffic's protocols or applications. Separating the traffic, while respecting the sessions (i.e., sticky sessions), allows, for instance analysing each part of the traffic by different instances of an IDS or security analysis probe using disjoint security verification rules. This will improve the scalability of the analysis with respect to the amount of traffic and the number of rules used.

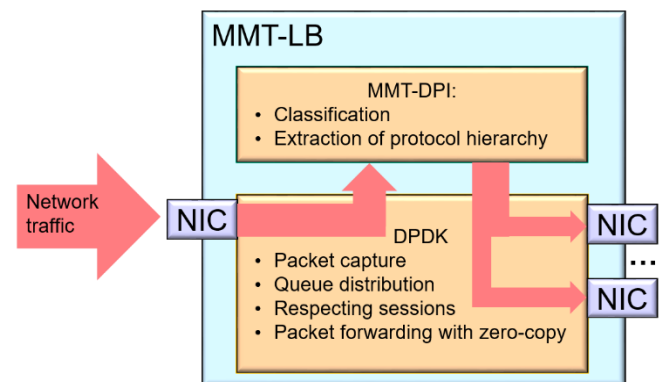
Solution Overview

MMT-LB has the following characteristics:

- It uses **DPDK** (<http://dpdk.org/>) for the capturing of the network packets of high bandwidth network interfaces (e.g. 10Gbps NICs). A **PCAPlib** (<http://www.tcpdump.org/>) version is also available.
- **DPDK's** symétric hash (called `sym_hash`) is programmed with **MMT's** own algorithm to assure that a session is not split among the different Rx queues of the NIC (i.e., assure that the **sessions are respected**).
- Each execution thread manages the complete processing starting from the packet capture, to the classification by the **MMT-DPI** module, and ending with the redirection of the traffic to the appropriate network interface. In other words, each processing core will take the packets from one or more Rx queues of the input NICs, classify the packets, and redirect them to the appropriate Tx queues of the output NICs.
- For dealing with **10/20/40 Gbps** traffic bandwidth, **MMT-LB** is designed to work best with a server with 16 or more processing cores and with 16 to 22 Rx queues made available by the NIC's DPDK.

DPDK is a set of libraries and drivers for **fast packet processing**. It allows building applications that can receive and send packets within the minimum number of CPU cycles (usually less than 80 cycles). **MMT-LB** relies on this library to develop its fast packet capture algorithms and parallelize the packet processing tasks.

The following figure shows the main modules and functions:



Highlights

High bandwidth network traffic load balancer or splitter

Protocol and application filtering

Based on DPI packet and flow classification

Respecting sessions (sticky sessions)

Uses DPDK or PCAPlib packet capture interfaces

Zero packet loss

Contact information

Partnership plan:

Integration of MMT modules with your system

Demo request:

Send an email to contact@montimage.com