



Packet Mirroring Collector (PMC) Plugin

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Overview

The Packet Mirroring Collector/Controller plugin facilitates the configuration capture and display of mirroring on a variety of triggers, enabling users to conduct real-time monitoring of network events.

Supported triggers are pFRN, Congestion, Fast Recovery, CQE and PHY Error Links.

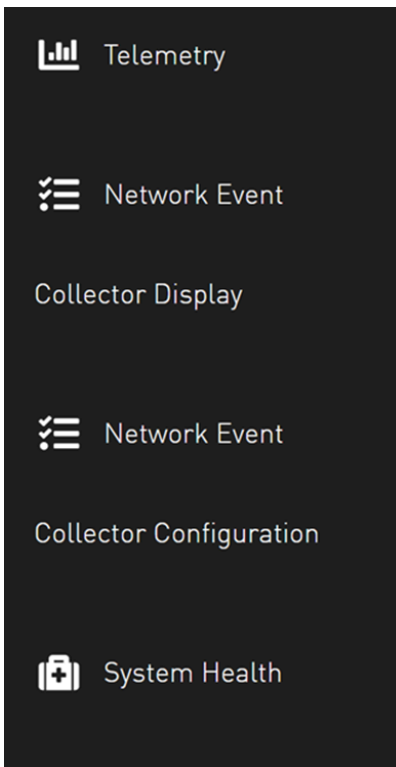
Deployment

Installation

Load the image on the UFM server; either using the UFM GUI -> Settings -> Plugins Management tab, or by loading the image via the following command:

1. [Login to the UFM server terminal.](#)
2. [Run](#)

```
docker load -i <path_to_image>
```



Upon completion of the plugin addition and subsequent refresh of the UFM GUI, the left navigation bar will display two new menu items. These two tabs can be observed in the following GUI screenshots

PMC UI

Network Event Collector Display

Network Event Collector Display

pFRN Events
Congestion Events
Fast Recovery Events
CQE Events

Profile Event summary ▾
Time Last 24 hours ▾

Please wait...

Displayed Columns ▾

timestamp	src guid	src lid	src desc	local qpn	dst lid	remote qpn	transport	syndrome
2024-01-02 11:20:13.607486	0x98039b03009fce86	1	smg-ib-svr065 mx5_0	72	6	224	RC	Remote Access Error

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Network Event Collector Configuration

Network Event Collector Configuration

Collectors

pFRN Notifications	<input type="text" value="on Entire Network"/>	<input type="button" value="Browse"/>
Fast Recovery Notifications	<input type="text" value="on Entire Network"/>	<input type="button" value="Browse"/>
Notification Level	<input type="text" value="Normal"/>	
PHY Error Links Notifications	<input type="text" value="on Entire Network"/>	<input type="button" value="Browse"/>
Notification Level	<input type="text" value="Normal"/>	
CQE Notifications	<input type="text" value="on Entire Network"/>	<input type="button" value="Browse"/>
Congestion Notifications	<input type="text" value="Disabled"/>	<input type="button" value="Browse"/>
Mirrored packets (%)	<input type="text" value="1"/>	
High threshold	<input type="text" value="75"/>	
Low threshold	<input type="text" value="50"/>	

General Options

enable adaptive routing	<input type="checkbox"/>
enable aggregation	<input checked="" type="checkbox"/>
enable autostart	<input checked="" type="checkbox"/>

pFRN:

- pFRN Notifications - Enables/Disables mirroring on pFRN trigger for entire network or list of GUIDs

Fast Recovery:

- Fast Recovery Notifications - Enables/Disables mirroring on Fast Recovery trigger for entire network or list of GUIDs
- Notifications Level - Specifies threshold for Fast Recovery mirroring. (Thresholds are configured in SM configuration)

PHY Error Links:

- PHY Error Links Notifications - Enables/Disables mirroring on PHY Link Error trigger for entire network or list of GUIDs
- Specifies threshold for PHY Link Error mirroring. (Thresholds are configured in SM configuration)

CQE:

- CQE Notifications - Enables/Disables mirroring on CQE Notifications trigger for entire network or list of GUIDs

Congestion:

- Congestion Notifications - Enables/Disables mirroring on Congestion Notifications trigger for entire network or list of GUIDs
 - Mirrored packets (%) - Specifies the percent of congested packets to be mirrored.
 - High threshold - High threshold percentage for InfiniBand switch egress port queue size. Values are in the [1,1023] range.
 - Low threshold - Low threshold percentage for InfiniBand switch egress port queue size. Values are in the [1,1023] range.

NOTE: When a packet enters an InfiniBand switch, its data is stored at an ingress port buffer. A pointer to the packet's data is inserted into

the egress port's queue, from which the packet will be exiting the switch. At that point, the threshold given by this command line argument is compared

to the egress queue data size. If the queue data size exceeds the threshold, a congestion event is reported. The threshold is given in percent of the ingress port size.

An egress port queue can point data coming from multiple ingress port buffers, therefore the threshold can be bigger than 100%.

