

Stampede FX Series New Firmware v6.1.0 & New FX-4010 Platform

Comtech EF Data is pleased to announce the availability of the Stampede FX Series firmware release 6.1.0. The new firmware adds significant new features to the Stampede FX Series portfolio and enhances a number of existing features.

In addition to the new firmware, we now have a new platform available, the FX-4010 Application Delivery Controller (ADC) and Remote (REM).

Firmware v6.1.0

The new key features and enhancements for this release include:

- Header Compression/Packet Aggregation
- Packet Payload Compression
- Improved QoS monitoring
- Improved QoS filtering

Header Compression/Packet Aggregation

As real-time traffic moves to IP, there is a proliferation of traffic with small payloads: payloads that require headers that are 2 to 4 times the size of the payload. While this is required for IP, it adds a lot of extra traffic, which is essentially redundant and can be significantly compressed on the space segment links. The FX has layer 7 compression/caching functions that can reduce the amount of data on the network. The new Payload Compression intercepts traffic at layer 2, and compresses the headers identified in the table below. This will typically reduce all the headers to a total of 3 - 4 bytes. After header compression, the rest of the payload is optionally ZLIB (GZIP) compressed. The resulting packets are aggregated into a single Ethernet frame payload and transmitted through the link to a peer device.

Ethernet 2.0	Ethernet 2.0 + VLAN-tag
Ethernet 2.0 + VLAN-tag + VLAN-tag	Ethernet 2.0 + MPLS
802.3-raw	802.3-raw + VLAN-tag
802.3-raw + VLAN-tag + VLAN-tag	802.3 +802.2
802.3 +802.2 +VLAN-tag	802.3 +802.2 +VLAN-tag +VLAN-tag
IP	IP/TCP
IP/UDP	IP/UDP/RTP

Not all traffic will be header compressed. Incoming traffic is intercepted with filters and queued. Each queue can be selected for payload compression; if it is not selected, then traffic in that queue can have the other FX optimizations performed, such as L7 compression, caching and TCP acceleration. These are the same queues used for QoS, and the traffic can be shaped using the QoS functionality.

Header compressed packets are aggregated within the QoS queue and held until they have reached the MTU, and then released. However, there is the ability to set the maximum delay associated with any queue. When a queue has reached its maximum delay, all aggregated packets are sent at that time.

Improved QoS filtering and monitoring

MPLS labels were added to the filtering parameters. Filters can be set with MPLS labels and/or the EXP bits. When using MPLS in the filter, VLAN tags can also be used, but no other protocols are available to the filter.

The enhanced QoS monitoring screen adds the ability to monitor traffic by queue in real time. Queues are identified by priority, as well as their CIR and MIR. Three sets of statistical averages are provided for each

queue. The sets are current, averaged over a predetermined period of time and since last reset. The pre-defined averages are 1 hour, 24 hours or 72 hours.

Update Interval (s): 1 Average Time Period: 1 Hour
 Display Type: Human Reset Counters:

View QoS Queue Settings

Queue Name	Priority	Packet Compression	CIR (Kbps)	MIR (Kbps)	Current					1 Hour Average					Since Last Reset								
					WAN Rate	PPS	Comp. (%)	Drop Rate	Queue Depth	WAN Rate	PPS	Comp. (%)	Bytes Transferred	Packets Transferred	Packets Dropped	Drop Rate	Peak Queue Depth	Bytes Transferred	Packets Transferred	Comp. (%)	Packets Dropped	Drop Rate	Peak Queue Depth
-Internal Signalling-	1	Disabled	0	311,709	41.98 Kbps	3	0	0	0	38.48 Kbps	3	0	17.03 MB	11.87 (K)	0	0	0	312.99 MB	218.07 (K)	0	0	0	0
RDP	2	HC, PL	0	311,709	0 bps	0	0	0	0	0 bps	0	0	0 B	0	0	0	0	0 B	0	0	0	0	0
UDP.Q	7	HC, PL	0	311,709	12.12 Kbps	8	0	0	0	7.33 Kbps	5	0	3.25 MB	20.25 (K)	0	0	0	158.53 GB	129.33 (M)	64.55	0	0	4
-Default-	8	Disabled	0	311,709	7.30 Mbps	12,299	0	0	0	12.48 Mbps	13,474	0	5.39 GB	50.03 (M)	8,23 (K)	0.0	127	33.13 GB	422.85 (M)	0	8.05 (K)	0.0	127
Aggregate Totals					7.35 Mbps	12,310	0	0	0	12.52 Mbps	13,482	0	5.41 GB	50.07 (M)	8,23 (K)	0.0		191.96 GB	552.40 (M)	57.07	8.05 (K)	0.0	127

Packet Compression (PC)				
Disabled	HC	PL	Disabled**	Error
PC disabled for queue	Header Compression	Payload Compression	PC globally disabled	Connection error(See help)

Modem IP	Modem Status	Data Rate (Kbps)
172.27.101.251	Primary	311,711.88
172.27.101.252	Redundant	0.00

Release 6.1.0 is now supported by these products:

- FX-4010 ADC and REM **New Product**
- FX-4000 ADC and REM
- FX-1000 ADC and REM
- FX-1005 ADC and REM
- FX-1010 REM

To obtain the new release for existing, fielded units, go to:

<http://www.comtechefdata.com/support/software/flashupgrades/ran-wan-optimization/stampede-fx-series>.

New Platform: FX-4010 ADV & REM

The FX-4010 adds the ability to support 30,000 active connections and a maximum data rate of 310 Mbps. It is replacing the FX-4000, and has the identical speed grades and pricing, with the addition of the 310 Mbps speed. The FX-4010 is rated at 400,000 packets per second (pps) when doing header compression.



To learn more about the Stampede FX Series, please refer to our web site, www.comtechefdata.com. To place your order, please contact your Comtech EF Data sales associate.



sales@comtechefdata.com



+1.480.333.2200



+1.480.333.2540