The IP Module Version 1.5.3 is now available for the CDM-570 and CDM-570L Satellite Modems. This release includes new functionality for enhanced operation, and is summarized below.

Expanded Data Rate Support

In conjunction with the base modem v1.5.1, the IP Module now supports operation up to 9.98 Mbps and 3 Msps. The new data rates can be achieved via FAST options for the CDM-570 (70/140 MHz model) and the CDM-570L (L-Band model). The higher data rates are dependant on modulation and forward error correction, and are as follows:

Forward Error Correction	Modulation	Data Rate Range
Viterbi or Turbo Product Coding	QPSK Rate 3/4	7.2 kbps to 4.5 Mbps
Viterbi or Turbo Product Coding	QPSK Rate 7/8	8.4 kbps to 5.25 Mbps
Viterbi or Turbo Product Coding	QPSK Rate 0.95	9.1 kbps to 5.66 Mbps
Turbo Product Coding	8-PSK / 8-QAM Rate 3/4	10.8 kbps to 6.75 Mbps
Turbo Product Coding	8-PSK / 8-QAM Rate 7/8	13.6 kbps to 7.875 Mbps
Turbo Product Coding	8-PSK / 8-QAM Rate 0.95	15.3 kbps to 8.5 Mbps
Viterbi or Turbo Product Coding	16-QAM Rate 3/4	14.4 kbps to 9.0 Mbps
Viterbi or Turbo Product Coding	16-QAM Rate 7/8	16.8 kbps to 9.98 Mbps

Modems already deployed can be easily field-upgraded to support the higher data rates. Simply load the new software version and contact your Comtech EF Data sales associate to order your FAST upgrade (additional charge is applicable).

Enhanced Quality of Service (QoS)

- Dynamic QoS Buffering – From the QoS Configuration menu, the overall system latency can be specified. This represents the maximum amount of time that a packet can reside in a QoS queue before it gets "aged out" and dropped.

Configuration & Management

- When v1.5.3 or later of the IP Module and v1.5.1 of the base modem are installed, enables upgrading the base modem firmware via the IP Module.

- When the IP Module is rebooted, both the base modem and the IP Module will reboot their software.

- The parameter file stored in the IP Module's flash is consolidated with the base modem. The parameter file now includes all parameters for the entire system.
  - o **Important Note**: In order to retain the new settings (base modem and IP Module), the IP Module parameter file must be saved.

- Supports Classless Inter-Domain Routing (CIDR) or the aggregation of networks into "supernetting" of IP addresses.

- A single working mode command was created, allowing for simplified mode switching
    - Router – Small Network
    - Router – Large Network
    - Router – Point-to-Point
      Router – Vipersat
    - EasyConnect

Enhancements Applicable to Vipersat Management System (VMS)

For systems utilized in VMS configurations, the following features are available with IP Module v1.5.3:

- Vipersat Remote 1:1 Redundancy – A pair of 1:1 redundant modems configured as a Vipersat remote is now supported, including the standard Vipersat features (STDMA burst, switching into SCPC mode, etc.).

- Vipersat File Stream (VFS) Support – The IP Module supports VFS. Refer to Comtech Vipersat Networks' documentation for additional information.

- Quality of Service (QoS) Rule Switching – A STDMA to SCPC switch based upon any packet flow that matches a QoS queue can be initiated. This powerful feature enables SCPC switching to occur based on virtually any type of IP traffic.

- By utilizing the Vipersat Management System Vload application, the modem now supports the ability to change the working configuration without changing the parameter file stored in flash.

- Burst Fast Acquisition – This feature provides a dramatic reduction in the burst acquisition times when running a Vipersat STDMA channel in QPSK 3/4 or 7/8 for data rates of 64 kbps to 256 kbps. Please refer to the manual for details.

Obtaining the New Software

This new software can be downloaded from our web site, www.comtechefdata.com under the "Downloads" section.

Important Note: Modems that will be upgraded to base modem v1.5.1 **must** first be operating with v1.4.4 or later software. Otherwise, v1.5.1 cannot be properly installed.

For additional detail on the features described above, please refer to the user documentation for the CDM-570/570 Satellite Modems.

If you have any questions about this announcement, please contact your Comtech EF Data sales associate.

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