

Version 1.3.3 Bulk Release for CDM-IP 550/300L Modems (FramerII)

Approval Signatures			
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Applicability
Version 1.3.3 Bulk Release for CDM-IP 550/300L modems (FramerII). Includes all related firmware and SNMP MIBs

Revision History			
Rev #	Description	Date	Prepared by
-	Version 1.3.0	1/29/2004	W. Davis
A	Version 1.3.1	7/26/04	P. Heck
B	Version 1.3.2	8/03/04	P. Heck
C	Version 1.3.3	07/15/05	Lakshmana Chintada

FSCM No. 4J515

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Introduction

Version 1.3.3 Bulk Maintenance Release is an upgrade release for the CDM-IP modems with FramerII hardware. It is **recommended** that all field-installed CDM-IP networks be upgraded to this version of software. This bulk release should only be used with CDM-IP 550 and CDM-IP 300L modems that are using the FramerII hardware.

IMPORTANT! The IP module must be running FW10728- Version 1.3.0 before upgrading to FW10728D Version 1.3.3.

Feature Updates

Redundancy

In a 1:1 redundant configuration, network traffic reliably recovers after a switchover occurs. Parameter mirroring between redundant modems is now working consistently. Management of redundancy using the web interface is now reliable in both Router and EasyConnect modes.

Denial of Service Protection

Denial of Service protection has been added to keep the CDM-IP from running out of flow descriptors when viruses send denial of service traffic with increasing source/destination ports through the modem.

KST2000A/B Configuration via Web Interface

Configuration and management of the KST2000AB is now supported via the web interface.

Saving Flash Parameters on Web Interface

Through the web interface, the user can now save parameters to flash by clicking on “Save Flash” in the *Maint* web menu.

Defect Fixes

EasyConnect MAC Address Learning

In EasyConnect mode, a problem was identified where the modem incorrectly identified a remote MAC as “locally attached” and did not forward traffic to the satellite for that MAC. This problem caused some traffic to not be bridged over the satellite. This has been resolved.

Upgrading Bulk Images

The upgrade facility has been improved to no longer issue the “l_LDverify_image - bad chksum” error when upgrading bulk images.

Modem Logs

The modem event log is now correctly read and processed through both the web and telnet/serial interfaces.

CDM-300L Tx-Only Route Table

On the 300L Tx-Only modem, when entering a route using the telnet/serial interface, the next hop can now be either “ToEth” or “ToSat”. Previously, only “ToSat” was supported when entering a route using this interface.

CDM-IP 300L Rx-Only Modem Status Web Page

On the 300L modem, the web interface is now able to serve the Modem Status web page correctly.

CDM-IP 300L Rx Frequency

When a modem is connected to an LNB, the user is now able to set Rx frequency via telnet/serial. Rx frequency will be in the Ku-Band.

Diagnostic Ping

The diagnostic ping across the satellite will now display the actual delay for the round trip time.

Web Interface's "Per Route" FAST Features

The web interface now correctly displays the 3xDES, Tx Header Compression, and Tx Payload Compression FAST features as "Per Route" when the modem is in Router mode.

Web Interface's Access List Page

The web interface will now only accept valid IP addresses and subnet mask combinations when entering this data into the Access List.

Payload Compression Refresh Rate

The value for the Payload compression refresh rate is now saved correctly into the parameter file on flash.

Web Interface AUPC's Remote Demod Unlock Action

On the web interface's AUPC page, the "Remote Demod Unlock Action" now works as expected, allowing the user to toggle between "Nominal Power" and "Maximum Power".

Payload Compression Reset History

Payload compression will now reset the compression history on the first packet of every new flow rather than waiting for the refresh count to be reached.

Backward Compatibility



CDM-IP modems upgraded to Version 1.3.3 can only interoperate with Version 1.3.3. Version 1.3.3 is not compatible with Versions 1.3.2, 1.3.0, 1.1.3, 1.1.2, & 1.1.1. Modems running previous versions of software must be upgraded to Version 1.3.3. The IP module must be running Version 1.3.0 (or 1.3.2) before upgrading to Version 1.3.3.

Valid Firmware Configurations

The table below identifies the valid configurations of base modem, CDM-FFPGA, CDM-IP FPGA, CDM-IP Boot, and CDM-IP App software that are supported. Modems that are configured with software that does not match one of the entries below may not function as expected.

	Base Modem M&C	CDM-IP BOOT	CDM-IP Bulk	CDM-IP FFPGA	CDM-IP FPGA
CDM-IP 550	FW1416-1T v1.32	FW9782-1D	FW10728C	FW10642-	FW10643-
CDM-IP 300L	FW8460-1AF	FW9782-1D	FW10728C	FW10642-	FW10643-

Compatible SNMP MIBs

The CDM-IP Controller MIB, CDM-IP 550 MIB, and CDM-IP 300L MIBs have been revised with this software release. These new versions of these MIB files should now be used.

MIB Name	Filename
Comtech EF Data	FW10174-8-.mib
CDM-IP Controller (updated)	<i>FW10174-2d.mib</i>
CDM-IP 550 (updated)	<i>FW10174-3b.mib</i>
CDM-IP 300L (updated)	<i>FW10174-4b.mib</i>
CDM-IP 550 Traps	FW10174-5-.mib
CDM-IP 300L Traps	FW10174-6-.mib

Changes in the IP Controller MIB file: (FW/10174-2d.mib)

1. The `cdmipTransmit3xDesEncryptionOpt` OID, `cdmipTxHeaderCompressionOpt` OID, and `cdmipTxPayloadCompressionOpt` OID can now have a value of `perRoue` (2).
2. The `cdmipTransmitEncryptEnabled` and `cdmipReceiveDecryptEnabled` OIDs have been removed. Instead 3xDES is controlled from the `cdmipTransmit3xDesEncryptionOpt` OID in Features Config sub-tree.
3. The `cdmipTransmitKey1-8` OIDs have been moved in MIB tree to be contiguously ordered.
4. The `cdmipReceiveKey1-8` OIDs have been moved in the MIB tree to be contiguously order.
5. The `cdmipModemPacketConfiguration` OID has been renamed to `cdmipWorkingMode`.
6. The value of `routingMode` (1) in `cdmipWorkingMode` has been renamed to be `routerMode` (1).
7. The `cdmipDhcpServerIpAddress` OID has been added to the MIB tree.
8. The `cdmipRemotePortBConfig` OID group has been renamed and moved into the 550 and 300L MIBs:
 - `cdmipRemotePortBDeviceAddress`,

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- cdmipRemotePortBBaudRate,
 - cdmipRemotePortBFormat,
 - cdmipRemotePortBInterface.
9. The cdmipDroppedPacketsMulticastNoStoe OID has been renamed to be called cdmipDroppedPacketsMulticast.
 10. The following statistics have been added to the MIB tree:
 - cdmipWanFpgaWanUtilization,
 - cdmipWanFpgaLanToWanTraffic,
 - cdmipWanFpgaActualWanTraffic,
 - cdmipWanFpgaWanBandwidthSaved.
 11. The cdmipHdrcompRatio OID has been changed to return an INTEGER instead of an OCTET STRING. This should allow better threading and monitoring of Header Compression.
 12. The cdmipPayloadCompRatio OID has been changed to return an INTEGER instead of an OCTET STRING. This should allow better threading and monitoring of Payload Compression.
 13. The cdmipQosFeature OID has been removed. The cdmipQosOpt OID in the Feature Config sub-tree should be used instead.
 14. The CimQosRulesEntry OID has been renamed to CdmipQosRulesEntry.
 15. In the cdmipQosRulesProtocol OID, the value of passiveFTP (7) has been replaced by ftp (7).
 16. The cdmipQosRulesSrcPort and cdmipQosRulesDstPort OID ranges have been expanded to now include zero.

Changes in the CDM-IP 550 MIB file: (FW/10174-3b.mib)

The following OIDs have been add to the 550 MIB tree:

- cdmip550RemotePortBDeviceAddress
- cdmip550RemotePortBBaudRate
- cdmip550RemotePortBFormat
- cdmip550RemotePortBInterface

Changes in the CDM-IP 300L MIB file: (FW/10174-4b.mib)

The following OIDs have been added to the 300L MIB tree:

- cdmip300LRemotePortBDeviceAddress
- cdmip300LRemotePortBBaudRate
- cdmip300LRemotePortBFormat
- cdmip300LRemotePortBInterface

Known Issues

Issue: There is no software check to ensure that the correct bulk image is being FTP'ed to the modem. If a Frameri bulk is loaded into a FrameriII system, the system will become inoperative when it is rebooted. If a FrameriII bulk is loaded to a Frameri system, the system will no longer work once it has been rebooted.

Workaround: The user must ensure they are FTPing the correct bulk image to correct Frameri configuration.

Issue: Traffic stops while saving parameters to permanent storage.

Workaround: None

Issue: The application “iChat AV” does not work with Header Compression enabled.

Workaround: None

Issue: The web interface does not provide a mechanism for reloading a parameter file from flash in order to undo changes the user may have unnecessarily made.

Workaround: Use telnet/serial interface to reload the parameter file from flash. This operation is available in the “Administrative Database Operations” screen under the “Operations and Maintenance” menu.

Issue: Accessing the web pages on the modem, will cause the “No Route - Dropped” statistic to be incremented in IP Routing Statistics.

Workaround: None