

Prepared by Manne Hellsing	
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1 1.8.7.0 (2021-10-29)

This release includes enhancements and bug fixes for all models as applicable.

1.1 New features

1.1.1 TCPdump

- Available on the diagnostics page

1.1.2 Web-GUI

- Added DNS status page

1.2 Enhancements

1.2.1 IPsec IKEv2 improvements:

- Added support for Liveness check. (Known as Dead Peer Detection or DPD in IKEv1)
- Added support for NAT traversal.
- Improved Connection establishment.

1.2.2 SNMP

- Improved logging
- engineID now displayed on webpage.
- Improved resetting of engineID.
- MIB updates:
 - Added configMACAddress@ enterprises.16177.1.200.1.1
 - Added wirelessPacketNetworkReg@ enterprises.16177.1.200.3.7
 - Added wirelessGPSSState @ enterprises.16177.1.200.3.17.1
 - Added wirelessGPSPosition @ enterprises.16177.1.200.3.17.2
 - Added wirelessGPSLockTime @ enterprises.16177.1.200.3.17.3
 - Added wirelessGPSSatelliteCount @ enterprises.16177.1.200.3.17.4
 - Added dslDataLinkUp @ enterprises.16177.1.200.6.14
 - Added vrrpState @ enterprises.16177.1.200.7.1
 - Added dslLineState @ enterprises.16177.1.200.6.1
 - Added dslLineStateName @ enterprises.16177.1.200.6.2
 - Added dslSyncSpeedDown @ enterprises.16177.1.200.6.3
 - Added dslSyncSpeedUp @ enterprises.16177.1.200.6.4
 - Added dslConnectionTable @ enterprises.16177.1.200.6.15
 - Containing the following entries:
 - Added dslConnIndex @ enterprises.16177.1.200.6.15.1.1
 - Added dslConnVPI @ enterprises.16177.1.200.6.15.1.2
 - Added dslConnVCI @ enterprises.16177.1.200.6.15.1.3
 - Added dslConnType @ enterprises.16177.1.200.6.15.1.4
 - Added dslConnEncap @ enterprises.16177.1.200.6.15.1.5
 - Added dslConnState @ enterprises.16177.1.200.6.15.1.6
 - Added dslConnCurrentSessionTime @ enterprises.16177.1.200.6.15.1.7
 - Added dslConnTotalSessionTime @ enterprises.16177.1.200.6.15.1.8
 - Added dslConnIPAddress @ enterprises.16177.1.200.6.15.1.9
 - Fixed wirelessState trap to correctly indicate return OIDs wirelessNetworkReg, wirelessRFLevel, wirelessPacketState, wirelessCSDState and wirelessPacketNetworkReg

1.2.3 Wireless Network Scan

- Stability improvements.
- Improved logging.
- Re-trigger scan on roaming mode configuration change, if necessary, otherwise clear scanned networks list.

1.2.4 DHCP client

- Show static leases if LAN2 DHCP enabled.

1.2.5 SSH

- Improved compatibility with a wider range of SSH clients.

1.2.6 General

- Warning added when enabling extended serial port logging.
- Web page load speeds improvements.
- Logging improvements.
- Connection maintenance improvements.
- Start up improvements
- Stability improvements.

1.3 Bug fixes

1.3.1 IPsec

- IPsec IKEv2 Fix for tunnels not always coming up properly on tunnel restart.

1.3.2 SNMP

- Resolved issue of possible incorrect SNMP engineID.

1.3.3 Wireless

- Fix to wireless network scan to only use deny list of active SIM.
- Fix for Wireless DNS sometimes not correctly applying received DNS server IP address.
- Allow blank password for packet profile wireless units (with warning).

1.3.4 MTU

- Fixed preferred MTU configuration.
- Fixed wireless MTU setting for MRD-415.

1.3.5 Modem emulator

- Fix issue with multiple phone book entries in the Modem Emulator.
- GDW-11 SMS-mode
 - Allow for it to be disabled after enabled.
 - Line feed and carriage return fix.
 - +CR and +CBST AT commands added.

1.3.6 xDSL

- Fixed password issue on PPPOA – BRD-355A & BRD-355B
- Resolved issue of VDSL interface reporting power on test failure.

1.3.7 General

- Resolved issue of upgrades not working if there was too long between file upload and upgrade start.

2 History

2.1 1.8.6.0 (2021-07-05)

This release includes enhancements and bug fixes for all models as applicable.

2.1.1 New features

- No new features.

2.1.2 Enhancements

2.1.2.1 IPsec

- IKEv2 added
- Multiple tunnel mapping initialisation improvements

2.1.2.2 Roaming

- General scan improvements.
- Deny list name changed to Ignore list.
- Added in Preferred PLMN roaming mode.
- Ability to upload a CSV file of the preferred PLMN list.
- Strict mode added - scan must match the configured criteria otherwise no connection will be made at all.
- Roaming mode and lists configurable for SIM 1 and Sim 2 (if available).

2.1.2.3 DHCP client

- Option to add DNS obtained to DNS list.
- Option to use obtained gateway as primary default gateway.

2.1.2.4 CLI

- Config reset command updated to require password and automatically reboot.
- Upgrade command now has options for username and password.

2.1.2.5 Web

- Automatically move cursor to username text field on login page.
- Added ability to configuration reset the unit.
- Return correct line power state on MRD-455 Rev2.
- Band 40 added to custom band selection on MRD-405 model.

2.1.2.6 API

- Fail on invalid characters set in hostname
- Add in configuration capabilities for LAN2
- Add in ability to configure the mode of a LAN interface (disabled, static, dhcp)
- Add in read and execute commands
 - "execute generate_tech_support" & "read tech_support_state"
 - "execute config_reset" & "execute config_reset_confirm"
 - "execute reboot"

2.1.2.7 General

- Logging improvements
- Connection maintenance improvements
- Start-up improvements for the MRD-415 and MRD-455
- Stability improvements

2.1.3 Bug fixes

2.1.3.1 Roaming

- Fix bugs with scan not completing properly.
- Fix bug with MRD-455 Rev2 models showing UMTS bands in scan when in LTE Only mode.
- Ignore list (previously deny list) now saves correctly.

2.1.3.2 Serial ports

- Fix inversion of CTS / RTS signal when offline.
- Fixed CTS signal read and web page indicator.
- Correctly handle signal naming of DCE and DTE ports.

2.1.3.3 Web

- Web certificate generation issue resolved.
- Hostname fails with all special characters besides a hyphen. Previous behaviour was to silently fail and full stop and underscore characters were accepted.

2.1.3.4 General

- LLDP issue resolved.
- Ethernet MTU issue resolved.
- Fixed ability to specify IP address for PPPOA on BRD-355A and BRD-355B

2.2 1.8.5.0 (2021-04-01)

This release includes enhancements and bug fixes for all models as applicable.

2.2.1 New features

- No new features.

2.2.2 Enhancements

2.2.2.1 Upgrader

- General improvements to upgrade procedure.

2.2.2.2 Security

- Max password length increased to 128 characters.

2.2.2.3 Wireless Interface

- Wireless MTU configuration support and display.

2.2.2.4 SMS

- Added support for 8-bit and 16-bit modes.
- GDW-11 SMS compatibility mode.
 - Enabling this mode, the MRD-415/455 will react and respond in the same way as a GDW-11 modem. This will allow MRD-415 & 455 to be seamlessly exchanged for a GDW-11 in most application where SMS messages are sent vial the serial modem interface.

2.2.2.5 xDSL interface

- DSL "Timeout for network initialisation" setting default changed from 120s to 600s.
- ADSL improvements for BRD-355A and BRD-355B

2.2.3 Bug fixes

2.2.3.1 IPSec

- Fix for packet re-establishments after wireless disconnections.

2.2.3.2 DynDNS

- Resolved issue where “enable” was not persistent.

2.2.3.3 CLI

- netstat CLI fix.

2.2.3.4 SMS

- Resolved buffering issue in modem emulation mode.

2.2.3.5 General

- Resolved issue where hardware without support for CSD would fail into CSD mode, due to imported configuration from hardware with support.
- Resolved issue where MRD-455 rebooted on 0 failed connection attempts.

2.3 1.8.4.0 (2021-01-29)

This release includes enhancements and bug fixes for all models as applicable.

2.3.1 New features

- No new features.

2.3.2 Enhancements

2.3.2.1 DNS

- DNSMASQ has been upgraded to not be affected by reported vulnerabilities:
 - CVE-2020-25684
 - CVE-2020-25686

2.3.2.2 OpenVPN

- Improvements to TLS certificate management.
 - Ability to manually upload TLS certificate

2.3.2.3 LAN ports

- Added support for routing between LAN ports, when in split port mode.

2.3.3 Bug fixes

2.3.3.1 DHCP

- Resolved issue of custom DNS on LAN2.

2.3.3.2 Wireless Interface (MRD-455 Rev1)

- Resolved issue where DNS server provided by the network may not be correctly applied.
- Resolved issue of no packet traffic over interface.

2.3.4 Known issues

- No known issues.

2.4 1.8.3.0 (2020-12-18)

This release includes enhancements and bug fixes for all models as applicable.

2.4.1 New features

No new features.

2.4.2 Enhancements

2.4.2.1 IPSec

- Added in ability to specify the IPSec CA DN required.

2.4.2.2 SMS

- Added 0.3.38 (GSM7) terminal setting for SMS in Modem Emulation Mode.

2.4.2.3 Ethernet / LAN

- Enhanced MTU configuration.

2.4.2.4 SNMP

- Miscellaneous updates and improvements.

2.4.3 Bug fixes

2.4.3.1 DHCP

- Fixed issue with importing DHCP configuration settings from previous firmware revisions.

2.4.3.2 Web-interface

- Fixed issue with routing table not rendering correctly.
- Improvements to IPSec page.

2.4.3.3 Wireless Interface

- Removed the SetMNB application for non-MNO configured units.
 - This caused an issue with connections on some carriers when using private APNs.

2.4.4 Known issues

- No known issues.

2.5 1.8.2.0 (2020-11-13)

This release includes new features, enhancements, and bug fixes. It also adds support for the BRD-355 and ADSL-350 in the 1.8 firmware branch. All updates listed in the History section are inherited to the BRD-355 and ADSL-350.

2.5.1 New features

2.5.1.1 DCHP

- Client functionality on LAN ports

2.5.2 Enhancements

2.5.2.1 Ethernet / LAN

- Improved split port support.
- Individual LAN port control and monitoring.
- If a gateway is set on LAN, default/static routes can be specified.
- MAC filtering added on LAN2.
- ARPs response mode can be set.
 - The modes are:
 - **Strict** - Reply only if the target IP address is a local address configured on the incoming interface and both with the sender's IP address are part of the same subnet on this interface.

- **Normal** - Reply only if the target IP address is a local address configured on the incoming interface.
- **Permissive** - Reply for any local target IP address, configured on any interface.

2.5.2.2 DHCP

- Added client functionality to LAN ports.
- Added server functionality to LAN2.
- Added ability to specify NTP and DNS settings on DHCP server.

2.5.2.3 Dynamic DNS

- Added ability to specify refresh period.

2.5.2.4 Web

- Added routes page.
- Time and date now displayed on all pages.

2.5.2.5 Wireless

- General stability improvements.
- Improved LTE connections for MRD-415.
- Improvements to Private APN authentication and connection establishment.
- Improved roaming support, details as follows:
 - On boot a scan is performed to determine which networks are available.
 - All available networks are scanned.
 - Any network in the "Denied Networks" list will not be included in the scan.
 - Depending on the Roaming Mode a network connection will be attempted.
 - If successful, remain on the selected network.
 - If connection maintenance (remote ping) is enabled:
 - On failure the network is added to a temporary Deny List.
 - This is a standard ping test, not a performance test.
 - If all the available networks are on the temporary deny list:
 - The temporary deny list will be cleared.
 - A network scan will be performed.
 - Attempt to connect to a network based on Roaming Mode setting.
 - This prevents all available networks being locked out should the ping server not respond.
 - Adding a network to the Deny List will have immediate effect.
 - If the network is currently connected it will be disconnected.

2.5.2.6 Upgrade

- Improved memory management during upgrade procedure of MRD-405.

2.5.2.7 Security

- Flag in web-GUI if default password is not changed.

2.5.3 Bug fixes

2.5.3.1 IPsec

- Resolved Back to Back ping issue.

2.5.3.2 VRRP

- Resolved issue of not going to backup when Ethernet interface is disabled.
- Resolved issue where ADSL-350 not going to backup when xDSL cable is removed.

2.5.3.3 Bridged PPPoE

- Resolved packet loss issue.
- For this to work there are restrictions:

- The Ethernet port configuration must be in split mode; and
- Bridge mode can only be set to LAN1.

2.5.3.4 MAC filtering

- Resolved the MAC address filtering stability issue.

2.5.3.5 Ghost IP

- Resolved Ghost IP issue on MRD-x05 units.

2.5.3.6 Certificates

- Resolved root and subordinate certificate issue.

2.5.4 Known issues

- No known issues.

2.6 1.8.1.0 (2020-05-11)

This is an enhancement and bug fix release.

2.6.1 New features

No general new features, model specific updates only.

2.6.1.1 Remote syslog

- Added support for MRD-x05 models.

2.6.2 Enhancements

2.6.2.1 SHA2

- Added support for SHA2 to:
 - IPsec
 - Open VPN
 - Web server
 - SNMP
 - SCEP

2.6.2.2 IPsec

- Added xAuth server.
- Added ability to enforce strict settings.

Security

2.6.2.3 General improvements.

- Password cannot be set to the default.
- Warning if password has not been changed from default.
- TLS upgrade.

2.6.2.4 Web

- Improved JavaScript error handling on various web pages.
- Added hardware version to information page.

2.6.2.5 Wireless

- Improved LTE connection establishment.
- Improved LTE authentication prior to network connection. This reduces instances of connection to UMTS prior to connection to LTE.
- Improved LTE connection times in some situations.
- Improvement to band swapping on some models.
- Improved roaming support.
- Improvements to Private APN authentication and connection establishment.

2.6.2.6 Serial Server

- DNP3 primary / backup support improved.

2.6.2.7 Log

- Improvements to log rotation.

2.6.2.8 VRRP

- Added ability to add polling source address.

2.6.2.9 SCEP

- Added support for non chained certificates.

2.6.2.10 PPP

- Updates to improve connection establishment speed.

2.6.3 Bug fixes

2.6.3.1 IPsec

- Individual tunnel restart no longer causes all tunnels to restart.

2.6.3.2 Custom route

- Fixed issue where custom routes were not maintained through upgrade.

2.6.3.3 CLI

- Fixed issue with firmware upgrade command.

2.6.3.4 SMS

- Fixed case sensitivity issue for VPN tunnel trigger.

2.6.3.5 Firewall

- Fixed issue with limit on number of rules. Limit is now 150.

2.6.4 Known issues

- No known issues.

2.7 1.8.0.1 (2019-12-19)

This is an enhancement and bug fix release.

2.7.1 New features

- No new features.

2.7.2 Enhancements

2.7.2.1 Improved upgrader

- The firmware upgrade procedure is improved in terms of robustness by adding checkpoints throughout the upgrade, protecting the device from upgrade related issues.

2.7.2.2 CLI and Web-GUI

- General improvements and clean ups.

2.7.3 Bug fixes

2.7.3.1 3G connections

- Fixed 3G connection issues in previous version for MRD-3xx, affecting connections to certain carriers.

2.7.3.2 RADIUS server authentication

- Fixed issue in previous version with RADIUS authentication not communicating.

2.7.3.3 OpenVPN

- Fixed issue in previous version with OpenVPN dropping route on configuration update.

2.7.3.4 NAPT

- Fixed interface issue in previous version when NAPT was disabled.

2.7.4 Known issues

2.7.4.1 Services on LAN ports

- Some services (LLDP, mDNS, DHCP) only run on LAN port 1.

2.8 1.8.0.0 (2019-11-15)

This is a feature, enhancement and bug fix release. It introduces features that allow xRDs to be configured using WeConfig.

2.8.1 New features

2.8.1.1 Web interface – All models

- Improved authentication process
- Session based web interface
- Logout capabilities

2.8.1.2 LLDP – All models

- Support for LLDP added
- Disable flooding of LLDP packets by default (can be re-enabled)

2.8.1.3 mDNS – All models

- Basic mDNS capabilities added.

2.8.1.4 LAN – All models

- A link address can be enabled on the LAN interface (and discovered through mDNS).
- Allow ethernet ports to be separated into two independent networks.

2.8.1.5 MRD-x05 specific

- Added Loopback Interface configuration.
- Added support for MAC filtering.

2.8.2 Enhancements

2.8.2.1 Web

- Improved Javascript and functionality of various web pages.

2.8.2.2 IPSEC

- Allow the specification of the Source Address various connections.

2.8.2.3 Interface

- Allow strict ARP checking to be enabled on Ethernet ports (default off).

2.8.2.4 DHCP

- Move configuration to DHCP specific web page.

2.8.2.5 DNS

- Move “Automatically obtain DNS from WAN interface” to the dns page.

2.8.2.6 MSP

- Better reporting of Signal Quality information for Rev2 Units.
- Improve the roaming code to support more networks and moving between technologies better.

2.8.2.7 Wireless

- Add additional LTE band Connectivity on some units.

- Add option to enable or disable case sensitivity for SMS triggers.

2.8.2.8 SNMP

- Turned by default, after upgrade.
- Added Configurable Sysname.
- Add button to send a “test” trap to all trap destinations. This is a temperature trap with a 237 °C value.
- Added the device MAC address to the unit’s MIB (Westermo OID enterprise.16177.1.200.1.4).

2.8.2.9 General

- Shutdown improvements.
- Enable the LinkLocal Interface and MDNS on the initial boot (until a configuration has been saved).
- Improve the routing efficiency through better interrupt management.

2.8.2.10 MRD-x05 specific

- Raised the number of certificates from 1 to 4.
- Increase the number of IPSec tunnels from 1 to 3.

2.8.3 Bug fixes

2.8.3.1 Loopback

- Correctly set address when changed while enabled.

2.8.3.2 Serial Server

- Fixed an issue with Reverse Telnet.
- Fixed issues with disconnection and reconnection of dnp3, modem emulation and tcp serial modes.

2.8.3.3 Fixed issue with frequency bands not displayed (MRD-455 Rev2)

- All available frequencies can now be chosen using the “Specify” option in the menu at **Wireless→Network→Frequency Band Selection**.

2.8.3.4 GPS

- Correctly save and restore the authentication required config.

2.8.3.5 DynDNS

- Fix an issue where the password was not being correctly restored after reboot.

2.8.3.6 Time

- If a date has not be saved, the time will default to the BuildDate rather than Epoch.

2.8.3.7 SMS

- Remove triggers that are not valid for that unit (e.g. CSD on a unit without CSD capabilities).

2.8.3.8 SNMP

- Block SNMP traffic until the SNMP agent has time to correctly initialize.
- Do not Populate SysContact or SysLocation if empty.

2.8.3.9 Interface

- Update packet counters periodically to remove “Large Jump” errors.

2.8.3.10 CLI

- Fixed an issue displaying SMS support.

2.8.3.11 Diagnostics

- Clear Ping trace on Config Reset.

2.8.3.12 OpenVPN

- Display the import OpenVPN configuration.

2.8.4 Known issues

2.8.4.1 Issue with 3G connections

- 3G connection problems on MRD-3xx models and with certain carriers.
- Solved in 1.8.0.1.

2.8.4.2 Services on LAN ports

- Some services (LLDP, mDNS, DHCP) only run on LAN port 1.

2.8.4.3 RADIUS

- RADIUS authentication not communicating.
- Solved in 1.8.0.1