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MRD 405-Rev 1-1.8.8.9	

Release Notes Version 1.8.8.9

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1 MRD-405-Rev1-1.8.8.9 (10-8-2023)

1.1 Applicable to

MRD-305 all serial numbers & 405 (Rev 1 Serial number 1000-1999)

This is a bug fix release.

1.2 New Features
- No new features.

1.3 Enhancements
-

1.4 Bug Fixes

- Clean up files system to create space for update process

2 1.8.8.9 (26-6-2-23)

2.1 Applicable to
BRD-355

MRD-405 (Rev 2 only from serial number 2000 - 11324)

MRD-305 all serial numbers & 405 (Rev 1 Serial number 1000-1999 should use 1.8.5.0)

MRD-310/415

MRD-355/455

This is a bug fix release.

2.2 New Features
- No new features.

2.3 Enhancements
- Logging:
- Improved message rate limiting.
- Improved handling of large log files
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- Upgrader:
- General improvements. (Reduce log file size to prevent updating issues on older versions of hardware, MRD-405 Rev 1)
  Update in preparation for moving to V1.9 series firmware.

2.4 Bug Fixes

- Logging
  - Fix for logging not starting under some conditions.
  - Fix issue with model MRD-455 Rev1 gateway not updating correctly on a network disconnect, reconnect.
- Added extended signal quality metrics to models MRD-415 & 455
  - Values will now appear in SNMP
    - IMIE & IMSI

2.5 1.8.8.8 (12 May 2023)

2.6 Applicable to

BRD-355

MRD-405 (Rev 2 only from serial number 2000 - 11324)

MRD-305 all serial numbers & 405 (Rev 1 Serial number 1000-1999 should use 1.8.5.0)

MRD-310/415

MRD-355/455

This is a bug fix release.

2.7 New Features

- No new features.

2.8 Enhancements

Logging improvements

2.9 Bug Fixes

- IPsec: IKEv2 Child SA re-keying fixes
- Dynamic DNS: Resolved issue with EasyDNS connections.
- OpenVPN: resolved issue of configured certificate lost on reboot
- LLDP: Fixed errors in table reported in SNMP

3 History

3.1 1.8.8.7 (2022-12-21)

This is a bug fix release.

3.1.1 New Features

- No new features.

3.1.2 Enhancements

- No enhancements.

3.1.3 Bug Fixes

3.1.4 IPsec

- IPsec re-try stability issue fixed.

3.1.5 Serial

- Modem emulator, multi phone book entries, server side disconnect issues fixed.

3.2 1.8.8.6 (2022-11-25)

This is an enhancement and bug fix release.

3.2.1 New Features

- No new features.

3.2.2 Enhancements
3.2.2.1 Serial port

- Improved isolated serial port start-up and shutdown.

3.2.2.2 Upgrader

- Improved MRD-x05 installer to reduce install size.

3.2.3 Bug Fixes
3.2.3.1 IPsec

- Fix issue when tunnel unable to connect for extended period.

3.3 1.8.8.5 (2022-10-17)

This is a bug fix release.

3.3.1 New Features

- No new features.

3.4 Enhancements

- No enhancements.

3.4.1 Bug Fixes
3.4.1.1 Syslog

- Syslog logging level now saves correctly.

3.4.1.2 xDSL

- Resolved DSL issue when VLAN set to 0.

3.5   1.8.8.4 (2022-08-25)

This is an enhancement, and bug fix release.

3.5.1   New Features

- No new features.

3.5.2   Enhancements

3.5.2.1   Wireless

- Improved wireless stability during long periods of high throughput.

3.5.2.2   xDSL

- Improved VDSL connection recovery when line is reconnected.

3.5.3   Bug Fixes

3.5.3.1   IPsec

- IPsec - IKEv2 fail over to IKEv1 issue resolved.

3.5.3.2   Modem Emulator

- Resolved server hang-up issue.

3.6   1.8.8.3 (2022-06-10)

This is an enhancement, and bug fix release.

3.6.1   New Features

- No new features.

3.6.2   Enhancements

3.6.2.1   General

- Added support for revised hardware
- Logging clean up.

3.6.3   Bug Fixes

3.6.3.1   IPsec

- Active redundancy bug fix.

3.6.3.2   SNMP

- EngineID stability improvements.

3.7   1.8.8.2 (2022-05-23)

This is a bug fix release.

3.7.1   New Features

- No new features.

3.7.2   Enhancements

- No enhancements.

3.7.3   Bug Fixes

3.7.3.1   DHCP

- Fix issue with DHCP start up.

3.8   1.8.8.1 (2022-05-23)

This is a bug fix release.

3.8.1   New Features
- No new features.

3.8.2   Enhancements
- No enhancements.

3.8.3   Bug Fixes
3.8.3.1   DHCP
- Fix issue with DHCP start up.

3.8.3.2   General
- Fix incorrect wireless LED indication (introduced in 1.8.8.0).

3.9   1.8.8.0 (2022-04-29)
This is a feature, enhancement, and bug fix release.

3.9.1   New Features
3.9.1.1   IEEE 802.1X
- Added Port Authentication (IEEE 802.1X) on Ethernet ports.

3.9.2   Enhancements
3.9.2.1   IPsec
- Added Deprecation warning in header of page.
- Default encryptions updated.
- Blowfish and modp1024 added to deprecation list.
- Twofish support added.

3.9.2.2   SCEP
- CA improvement.
- Key length now configurable.
- Wireless: Improved SIM validation on later model hardware
- Certificates: Added automatic certificate regeneration if non-matching.

3.9.2.3   SNMP
- Updated the valid serial server modes (pppDialout, rawTCPMux and rawUDPMux added).
- Remove underscore from vrrpState enumeration.

3.9.2.4   Wireless
- LTE signal quality and extended signal strength added to MIB.

3.9.2.5   General
- Webpage clean-ups.

3.9.3   Bug Fixes
3.9.3.1   SCEP
- Fixed process timeout issue.

3.9.3.2   Modem emulator
- Resolved issue with ctrl + z termination on PDU SMS.

3.9.3.3   Loopback
- Resolved issue resulting in DNS failure.

3.10 1.8.7.2 (2022-04-01)
This is an enhancement release. This release adds support for revised hardware without making any changes to functionality.

3.10.1 New Features
- No new features.

3.10.2 Enhancements
- Added support for revised hardware.

3.10.3 Bug Fixes
- No bug fixes.

3.11 1.8.7.1 (2021-12-21)
This is an enhancement and bug fix release.

3.11.1 New features
- No new features.

3.11.2 Enhancements
3.11.2.1 DNS
- DNS Domain changed to DNS Search Domain.

3.11.2.2 DHCP
- DHCP status on Alarms web page now reflects the status of LAN and LAN2 if applicable.
- DHCP sending of local domain and search domain now configurable.

3.11.2.3 OpenVPN
- OpenVPN import improvements (allow for config option "dev" to appear before "dev-type").

3.11.2.4 General
- Separate text fields for "Hostname" and "Domain" on System->Administration webpage.
- Improve tracking of interface state.
- Logging improvements.

3.11.3 Bug fixes
3.11.3.1 IPsec
- IKEv2: Liveness check bug fix
- IKEv2: bug fix for non SHA1 phase 1 (MD5/SHA256).
- IKEv2: Fix IPsec crashes when using multiple tunnel mappings
- IKEv1: Fix bug when responding in Aggressive mode.
- Bug fix for multiple tunnel mappings sometimes not all coming up.
- Better tracking of phase1 connections associated with phase2 connections.

3.11.3.2 Wireless
- Fix bug when using blank password for packet profiles.
- Fix bug with being unable to set bearer on some models.

3.11.3.3 General
- Fix a minor CSS issue to resolve the missing "Syslog" link on some machine/browser combinations.
- BRD-355
  - Bug fix for Rev1 hardware models where "VDSL Only G.INP Off" and "ADSL Only" mode could not be set correctly.
  - Bug fix for the vendor serial number inventory string not being set correctly.
  - Bug fix for Rev1 hardware not initialising properly after module re-power

3.12 1.8.7.0 (2021-10-29)

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

3.12.1   New features
3.12.1.1   TCPdump
- Available on the diagnostics page

3.12.1.2   Web-GUI
- Added DNS status page

3.12.2   Enhancements
3.12.2.1   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.

3.12.2.2   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 wirelessGPSState @ 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

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

3.12.2.4 DHCP client
- Show static leases if LAN2 DHCP enabled.

3.12.2.5 SSH
- Improved compatibility with a wider range of SSH clients.

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

3.12.3 Bug fixes
3.12.3.1 IPsec
- IPsec IKEv2 Fix for tunnels not always coming up properly on tunnel restart.

3.12.3.2 SNMP
- Resolved issue of possible incorrect SNMP engineID.

3.12.3.3 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).

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

3.12.3.5 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.

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

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

3.13 1.8.6.2 (2022-03-31)
This is an enhancement release. This release adds support for revised hardware without making any change to functionality.

3.13.1 New Features
- No new features.

3.13.2 Enhancements
- Added support for revised hardware.

3.13.3 Bug Fixes
- No bug fixes.

3.14 1.8.6.1 (2021-09-30)
This is an enhancement release. Internal release only.

3.14.1 New Features
- No new features.

3.14.2 Enhancements
- Added support for revised hardware.

3.14.3 Bug Fixes
- No bug fixes.

3.15 1.8.6.0 (2021-07-05)
This release includes enhancements and bug fixes for all models as applicable.

3.15.1 New features
- No new features.

3.15.2 Enhancements
3.15.2.1 IPsec
- IKEv2 added
- Multiple tunnel mapping initialisation improvements

3.15.2.2 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).

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

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

3.15.2.5 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.

3.15.2.6 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

- o   "execute generate_tech_support" & "read tech_support_state"
- o   "execute config_reset" & "execute config_reset_confirm"
- o   "execute reboot"

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

3.15.3 Bug fixes
3.15.3.1 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.

3.15.3.2 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.

3.15.3.3 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.

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

3.16 1.8.5.0 (2021-04-01)
This release includes enhancements and bug fixes for all models as applicable.

3.16.1 New features
- No new features.

3.16.2 Enhancements
3.16.2.1 Upgrader
- General improvements to upgrade procedure.

3.16.2.2 Security
- Max password length increased to 128 characters.

3.16.2.3 Wireless Interface
- Wireless MTU configuration support and display.

3.16.2.4 SMS
- Added support for 8-bit and 16-bit modes.
- GDW-11 SMS compatibility mode.
  - o   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.

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

3.16.3 Bug fixes
3.16.3.1 IPSec
- Fix for packet re-establishments after wireless disconnections.
3.16.3.2 DynDNS
- Resolved issue where "enable" was not persistent.
3.16.3.3 CLI
- netstat CLI fix.
3.16.3.4 SMS
- Resolved buffering issue in modem emulation mode.
3.16.3.5 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.

3.17 1.8.4.0 (2021-01-29)
This release includes enhancements and bug fixes for all models as applicable.

3.17.1 New features
- No new features.

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

3.17.2.2 OpenVPN
- Improvements to TLS certificate management.
  - Ability to manually upload TLS certificate
3.17.2.3 LAN ports
- Added support for routing between LAN ports, when in split port mode.

3.17.3 Bug fixes
3.17.3.1 DHCP
- Resolved issue of custom DNS on LAN2.
3.17.3.2 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.

3.17.4 Known issues
- No known issues.

3.18 1.8.3.0 (2020-12-18)
This release includes enhancements and bug fixes for all models as applicable.

3.18.1 New features
No new features.

3.18.2 Enhancements
3.18.2.1 IPSec
- Added in ability to specify the IPSec CA DN required.
3.18.2.2 SMS
- Added 0.3.38 (GSM7) terminal setting for SMS in Modem Emulation Mode.

3.18.2.3 Ethernet / LAN
- Enhanced MTU configuration.
3.18.2.4 SNMP
- Miscellaneous updates and improvements.

3.18.3 Bug fixes
3.18.3.1 DHCP
- Fixed issue with importing DHCP configuration settings from previous firmware revisions.
3.18.3.2 Web-interface
- Fixed issue with routing table not rendering correctly.
- Improvements to IPSec page.
3.18.3.3 Wireless Interface
- Removed the SetMNB application for non-MNO configured units.
  - This caused an issue with connections on some carriers when using private APNs.

3.18.4 Known issues
- No known issues.

3.19 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.

3.19.1 New features
3.19.1.1 DCHP
- Client functionality on LAN ports

3.19.2 Enhancements
3.19.2.1 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.

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

3.19.2.3 Dynamic DNS

- Added ability to specify refresh period.

3.19.2.4 Web

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

3.19.2.5 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.

3.19.2.6 Upgrade

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

3.19.2.7 Security

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

3.19.3 Bug fixes
3.19.3.1 IPsec

- Resolved Back to Back ping issue.

3.19.3.2 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.

3.19.3.3 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.

3.19.3.4 MAC filtering

- Resolved the MAC address filtering stability issue.

3.19.3.5 Ghost IP

- Resolved Ghost IP issue on MRD-x05 units.

3.19.3.6 Certificates
- Resolved root and subordinate certificate issue.

3.19.4 Known issues
- No known issues.

3.20 1.8.1.0 (2020-05-11)
This is an enhancement and bug fix release.

3.20.1 New features
No general new features, model specific updates only.

3.20.1.1 Remote syslog
- Added support for MRD-x05 models.

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

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

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

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

3.20.2.5 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.

3.20.2.6 Serial Server
- DNP3 primary / backup support improved.

3.20.2.7 Log
- Improvements to log rotation.

3.20.2.8 VRRP
- Added ability to add polling source address.

3.20.2.9 SCEP
- Added support for non chained certificates.

3.20.2.10 PPP

- Updates to improve connection establishment speed.

3.20.3 Bug fixes

3.20.3.1 IPsec

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

3.20.3.2 Custom route

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

3.20.3.3 CLI

- Fixed issue with firmware upgrade command.

3.20.3.4 SMS

- Fixed case sensitivity issue for VPN tunnel trigger.

3.20.3.5 Firewall

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

3.20.4 Known issues

- No known issues.

3.21 1.8.0.1 (2019-12-19)

This is an enhancement and bug fix release.

3.21.1 New features

- No new features.

3.21.2 Enhancements

3.21.2.1 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.

3.21.2.2 CLI and Web-GUI

- General improvements and clean ups.

3.21.3 Bug fixes

3.21.3.1 3G connections

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

3.21.3.2 RADIUS server authentication

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

3.21.3.3 OpenVPN

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

3.21.3.4 NAPT

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

3.21.4 Known issues

3.21.4.1 Services on LAN ports

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

3.22 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.

3.22.1 New features

3.22.1.1 Web interface – All models
- Improved authentication process
- Session based web interface
- Logout capabilities

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

3.22.1.3 mDNS – All models
- Basic mDNS capabilities added.

3.22.1.4 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.

3.22.1.5 MRD-x05 specific
- Added Loopback Interface configuration.
- Added support for MAC filtering.

3.22.2 Enhancements

3.22.2.1 Web
- Improved Javascript and functionality of various web pages.

3.22.2.2 IPSEC
- Allow the specification of the Source Address various connections.

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

3.22.2.4 DHCP
- Move configuration to DHCP specific web page.

3.22.2.5 DNS
- Move "Automatically obtain DNS from WAN interface" to the dns page.

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

3.22.2.7 Wireless
- Add additional LTE band Connectivity on some units.
- Add option to enable or disable case sensitivity for SMS triggers.

3.22.2.8 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).

3.22.2.9 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.

3.22.2.10 MRD-x05 specific
- Raised the number of certificates from 1 to 4.
- Increase the number of IPSec tunnels from 1 to 3.

3.22.3 Bug fixes
3.22.3.1 Loopback
- Correctly set address when changed while enabled.

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

3.22.3.3 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.**

3.22.3.4 GPS
- Correctly save and restore the authentication required config.

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

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

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

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

3.22.3.9 Interface
- Update packet counters periodically to remove "Large Jump" errors.

3.22.3.10 CLI
- Fixed an issue displaying SMS support.

3.22.3.11 Diagnostics
- Clear Ping trace on Config Reset.

3.22.3.12 OpenVPN
- Display the import OpenVPN configuration.

3.22.4 Known issues
3.22.4.1 Issue with 3G connections
- 3G connection problems on MRD-3xx models and with certain carriers.
- Solved in 1.8.0.1.

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

3.22.4.3 RADIUS
- RADIUS authentication not communicating.
- Solved in 1.8.0.1