Release Note NRSW 4.3.0.100

Project Name: NRSW

Abstract:

This document represents the release note for NetModule Router Software 4.3.0.100. It informs on new functionality, corrections and known issues of this software version of NetModule's router series in comparison to release 4.2.0.103.

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Approval	Role	Name
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1 Release Information

NetModule Router Software:

Version:	**4.3.0.100**
Date:	**July 02, 2019**

Supported Hardware:

NetModule Router	Hardware Version
NB800	V2.0 - V2.2
NB1600	V1.0 - V3.3
NB1601	V1.0 - V1.3
NB1800	V2.4 - V2.6
NB1810	V2.4 - V2.6
NB2700	V1.0 - V2.7
NB2710	V1.0 - V2.7
NB2800	V1.0 - V1.4
NB3700	V2.0 - V4.3
NB3701	V1.0 - V1.4
NB3710	V2.0 - V4.3
NB3711	V1.0 - V1.4
NB3720	V2.0 - V4.3
NB3800	V1.0 - V1.4

Unsupported Hardware:

NetModule Router
NB1300 Series
NB2200 Series
NB2300 Series
NB2500 Series
NB2600 Series

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2 New Features

Case-#	Description
38404	**WLAN fast roaming** Fast Transition (802.11r) and pre-authentication is now supported.
45743	**WLAN band steering** It is now possible to steer WLAN clients from one frequency band to another.
48541	**L2TPv3 support** L2TPv3 tunnels can be configured and bridged to local interfaces.
48570 54206 55902 56101 56112	**Update of 3rd party software packages** Linux Kernel was updated to LTS release 4.19 curl was updated to version 7.64.0 OpenSSL was updated to 1.0.2r OpenVPN was updated to 2.4.6 Busybox was updated to 1.28.4
49120	**Allow multiple VRRP instances** You can now setup up to 4 instances of VRRP for different networks.
53015	**Disable low data rates as WLAN access point** It is now possible to disable low data rates in WLAN 2.4 GHz frequency band to avoid sticky clients and decrease airtime utilization.
53663	**Improved voice call quality** On NB1601 the voice quality was improved by better software sound processing.
54033 54934	**Support for new hardware** The CanGI shield providing a GNSS receiver and a CAN interface is now supported for NB800.
56765	**Wireless regulatory** The wireless regulatory database has been updated to version 2019-04-23.
57046	**DIO Support** Support of new DIO Extension Module for NB2800 and NB3800

3 New Beta Features

These features might undergo minor changes in the next releases.

Case-#	Description
54302	**Support for Netflow** WLAN interfaces can now be monitored using the Netflow protocol.

4 Fixes

The following issues and problems have been fixed.

Case-#	Description
49893	**Windows NTP Server** The NTP client had some problems while receiving NTP data from a Windows NTP server. This has been fixed
53789	**Improved VPN performance for NB1601** Improved transfer performance with IPsec and OpenVPN for NB1601. Scheduling in the software was improved to resolve the issue.
54456	**Failure in configuration conversion** Applying a configuration from NRSW release 3.8.0 and before could result in invalid IPSec connection for certain settings. This was fixed.
55453	**LED indicators** On connection establishment the WLAN LED on WLAN client could show red blinking signal, which is not described in the manual. This was fixed: The LED will always blink green until process of connection establishment was finished and then switches color to indicate the signal quality.
56534	**SNMP renaming of interface** IF-MIB entries were not updated after an interface was renamed. This has been fixed
56579	**Toby-L2 transparent routing** Transparent routing was not possible with an ublox Toby-L2 modem. This has been fixed in the router SW, but also requires a modem firmware update. For detailed information about supported firmware for the different Toby-L2 modems please contact our support.
56718	**Initial Setup** After the first initial login the external USB port was not disabled by default. This has been fixed. If you did the initial setup of your device with software release 4.1.0.105 to 4.2.0.104 you should review if the setup of the USB port is correct. Disabling the port explicitly via command line interface or web interface is not affected.
56829	**SIM handling improved** Due to timing issues it could happen that two modules were reported as connected to the same SIM card. In this case the connection was not established after configuration until a reboot was performed. This has been fixed. It could only happen if the device is configured via web interface. Configuration updates via configuration file or on SW update were not affected.
56863	**Ethernet link detection failed on NB1601** With some Ethernet switches there were situations where the link detection on NB1601 failed. This was fixed by tuning the settings of the internal Ethernet chip-set of the NB1601.
57073	**NTP server reported wrong stratum** If the device does not have any reliable time source like an external NTP server or GNSS after boot the NTP server reported a local stratum of 15 which is rejected by most NTP clients as invalid, but never the less not correct. An NTP server which is not synchronized should report 0 instead. This was fixed.
57154 **57155**	**SNMP could not be used with DES and AES** Setting up SNMP with DES and AES failed due to a missing dependency for OpenSSL in SNMP server. This was fixed.
57360	**WLAN channels not selectable** If United Arab Emirates was selected as location, 5GHz WLAN channels 36, 40, 44 and 48 were not offered for selection even though they are allowed to be used.

Case-#	Description
57540	**WLAN client flaky under heavy load** A WLAN client configured on NB800 and NB1601 was sporadically wrongly set down in situations with heavy traffic load. This was caused by invalid quality levels reported by the WLAN chipset. This was fixed by changing the chip settings and the procedure of supervision. The fix also increased the throughput in client mode.

5 ECC conversion

The flash on NB1600, NB2700, NB2710, NB3700, NB3710 and NB3720 provides an automated error correction using ECC. With release 4.1.0.100 we changed the ECC length from 1-bit ECC to 4-bit ECC which provides better error correction. On first boot after the update was performed the data on the flash is automatically converted to use the new ECC setup. While this conversion is performed the LEDs show a running light for about 30 seconds.
If you switch back to an older software release like 4.0.0 the migration is reverted.
We tested updates and down-grades to and from 4.0.0 and 3.8.0. Updates to or from older versions are not supported. If you run an older release or want to downgrade to an older release or a feature release like 3.8.2 you are advised to migrate via 4.0.0 as an intermediate release.
To revert the migration on downgrade the SPL boot loader release 4.1.0 stays in place. It can be downgraded in a second sofware update process initiated from the target release after the first reboot.
Software updates with recovery images require special attention. You must not use recovery images 4.0.0 and older for systems running 4.1.0 and newer. If you want to use recovery images please contact our support at router@support.netmodule.com.

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7 Change History

Version	Date	Name	Reason
1.1	July 2nd, 2019	Moritz Rosenthal	Added missing information on Cases 53789 and 49120
1.0	June 24th, 2019	Moritz Rosenthal	Final

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