

Release Note NRSW 4.4.0.104

Project Name: NRSW

Abstract:

This document represents the release note for NetModule Router Software 4.4.0.104. It informs on new functionality, corrections and known issues of this software version of NetModule's router series in comparison to release 4.4.0.103.

Keywords:

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1 Release Information

NetModule Router Software:

Version: **4.4.0.104**
Date: **May 14, 2020**

Supported Hardware:

NetModule Router	Hardware Version
NB800	V2.0 - V2.2, V3.2 (Rev. B02)
NB1600	V1.0 - V3.3
NB1601	V1.0 - V1.5
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
NB2810	V1.2
NB3700	V2.0 - V4.4
NB3701	V1.0 - V1.5
NB3710	V2.0 - V4.3
NB3711	V1.0 - V1.5
NB3720	V2.0 - V4.3
NB3800	V1.0 - V1.5

Unsupported Hardware:

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



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2 New Features

Case-#	Description
54359 56803 60333 61799	<p>GUI improvements</p> <p>It is now possible to configure whether status messages should appear on the login page of the web interface.</p> <p>The system log level settings can now be changed more convenient in the web interface.</p> <p>It is now possible to import IPsec expert mode files with encrypted keys via the web interface.</p> <p>Routers with Toby-L2 LTE modules now show LTE band information on the WWAN status page.</p>
58974 59941	<p>SDK improvements</p> <p>NB800 and NB1601 can now be set to a low power sleep mode from SDK.</p> <p>New SDK functions were introduced to scan for probing WLAN clients.</p>
58987	<p>WLAN: 8 SSIDs</p> <p>It is now possible to configure up to 8 SSIDs in AP-Mode for following routers: NB3800, NB3700 series, NB2800 series, NB2700 series, NB1600</p>
59288	<p>New Services available for ITxPT and FMStoIP Feature</p> <p>The services ITxPT and FMStoIP are available under two separate service licenses. Please contact sales for any inquiries.</p>
59543	<p>STP and RSTP for soft-bridges</p> <p>BR1 and BR2 support STP and RSTP settings.</p>
60213	<p>Improved user access rights</p> <p>The access right management for users was improved. It is now possible to grant native shell access to additional admin users or to disable shell access for a user.</p>
60650	<p>Active GNSS antenna for NB1800 and NB1810</p> <p>New HW releases of NB1800 and NB1810 support active GNSS antenna. It can be configured via GNSS settings now.</p>
60859	<p>Additional GRE tunnel parameters</p> <p>It is now possible to configure tunnel keys for GRE to allow a gateway to distinguish between GRE packages from different connected end devices.</p>
61210	<p>Additional settings for BGP</p> <p>The BGP setup now allows to configure additional parameters for time-out, hold-time and weight.</p>
61261	<p>ETH2 on NB1810 can now be enabled</p> <p>NB1810 now allows to disable the SFP port in favor of ETH2 as an additional Ethernet port.</p>
61270	<p>Increase maximum number of static DHCP hosts</p> <p>It's now possible to configure up to 70 static DHCP host entries.</p>

3 Security Fixes

The following security relevant issues have been fixed.

Case-#	Description
61537	Security fixes in 3rd party and open source packages CVE-2018-15599 Dropbear contains a user enumeration vulnerability CVE-2020-8597: pppd remote code execution in EAP code
61646	

4 Fixes

The following issues and problems have been fixed.

Case-#	Description
52032	GUI improvements
59927	File format of tcpdump debug traces from the web interface was improved.
60097	Fixed typo on the WLAN web interface.
60656	It could happen that a software update failed with a generic error message if the download of the software image failed. Newly in such cases the web interface will show a more helpful error message.
60887	It was not possible to configure a firewall rule with dedicated incoming and outgoing interface. This was fixed.
61166	On NB1601 a bridged WLAN interface was shown as status 'routed'. This was fixed.
61541	The web interface returned an error if some special characters like quotes were used inside an email password. This was fixed.
61860	Disabled radio buttons where not shown as disabled. Nevertheless it was not possible to change their value. This was fixed.
61874	A change of the TX power was not shown on the status page. This was fixed.
61979	With some WLAN chipsets the WLAN status page showed wrong transmission bit rate. This was fixed.
62129	The GUI was not checking the WLAN interface limitations during configuration to dualmode. This could lead to some WLAN interface misconfiguration. That has been fixed.
62432	WLAN MESH AP configuration parameters were disappearing in the GUI after applying a configuration. This has been fixed.
62454	Logs from SDK scripts did not wrap with the page width of the WEB interface. This was fixed.
	WLAN mesh setup showed some inconsistencies in the GUI. This was fixed.
58794	GUI: WLAN MESH auto channel configuration It was possible to set the WLAN channel to auto for WLAN MESH mode. That has been fixed.
60430	Software downgrade via USB stick failed In factory state the downgrade to Releases prior 4.2.0.x failed. This was fixed.
60435	SDK improvements
61842	The function nb_syslog() did not clean an internal buffer correctly which could lead to corrupted log messages. This was fixed.
	Due to an erase condition mails sent from the SDK on a high rate could get lost before they were sent to the MTA. This was fixed.
60673	Possible LTE connection loss Devices with Toby-L2 LTE modules faced sporadically connection loss. In some cases the connection could not be reestablished until reboot. This was fixed.
60788	Bring up several LTE connections with switch-over links
61584	Switch-over links should come up if their permanent master link disconnects. This did not work correctly if there were several permanent WWAN links with switch-over configured. This was fixed.
61986	
60870	Configuration via USB stick could fail Due to a time-out issue it could happen that consecutive configuration steps via USB stick failed. This would only affect you if you use one USB stick with some base configuration and then apply another configuration again with a USB stick on top without rebooting between these steps. This was fixed and you can apply consecutive configurations via USB stick one after the other.
60993	IPsec improvements In some situations it was not possible to reach the configuration web interface of a local router because traffic was erroneously routed via the IPsec tunnel. This was fixed.

Case-#	Description
61151	<p>Link supervision timeout prevents switch to better link</p> <p>If link supervision was enabled the link management did not change to a better link before the supervision timeout was reached. Even if the link was obviously down. This was changed so that a better link will be taken into account directly once we are sure we lost the old one.</p>
61466	<p>WLAN client ignored channel selection</p> <p>A WLAN client tried to connect to any AP providing the right SSID. It ignored the optional channel selection settings. This was fixed.</p>
61672	<p>Low LTE throughput</p> <p>Due to a failure in the TCP window management the LTE throughput was very low. This especially was an issue in longer TCP sessions like big file downloads or VPN connections. This issue was fixed.</p>
61935	<p>USB-Ethernet adapter not working on NB1601</p> <p>Due to an internal misconfiguration USB-Ethernet adapters were not shown in the IP setup of the web interface. That was fixed.</p>
62113	<p>Reset of GNSS module could fail</p> <p>There had been situations where the GNSS supervision failed to reset a GNSS module correctly. In that case no GNSS fix was available until the next system reboot. This was fixed.</p>
62368	<p>Installing a software release could lead to loss of stored factory configuration</p> <p>After installing another software release the factory configuration manually stored by the customer was lost. That has been fixed.</p>
62969	<p>RSTP protocol missing on NB800 and NB1601</p> <p>The binary of the RSTP daemon was not shipped with NB800 and NB1601 software images. This was fixed.</p>

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 software 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
1.0	May 14, 2020	Moritz Rosenthal	Release version

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