

Release Note NRSW 4.5.0.105

Project Name: NRSW

Abstract:

This document represents the release note for NetModule Router Software 4.5.0.105. It informs on new functionality, corrections and known issues of this software version of NetModule's router series.

Keywords:

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1 Release Information

NetModule Router Software:

Version: **4.5.0.105**
Date: **Aug 3, 2021**

Supported Hardware:

NetModule Router	Hardware Version
NB800	V2.0 - V2.2, V3.2 (Rev. B02)
NG800	V3.0
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
71040	Event trigger via PHP-CLI It is now possible to trigger a system event via PHP-CLI.
72970	IPSec improvements It is now possible to disable Source-NAT rules for IPSec.
73203 73449	GUI improvements The GUI now shows better information on the store password option. Also the manual was improved giving better information on this topic. It is possible now to download and upload encrypted configuration files.

3 Security Fixes

The following security relevant issues have been fixed.

Case-#	Description
73204	Remove session cookie on login and logout Existing session cookies of the web interface are now deleted on login and logout. This reduces the potential risk of HTTP response splitting attacks or compromised web clients.
73822 73872	Linux kernel security bug-fixes CVE-2021-22555: Privilege escalation in linux kernel allowed unprivileged users with shell access to gain root access or run a DoS attack on the system. CVE-2021-33909: Privilege escalation in linux kernel allowed unprivileged users with shell access to gain root access.

4 Fixes

The following issues and problems have been fixed.

Case-#	Description
69683	<p>PPTP connection failed with 4.5.0.100 An update of the ppp daemon missed a patch needed for PPTP. This was fixed.</p>
71029	<p>RTC reset on reboot Due to a race condition it could happen in very rare situations that the RTC was reset on reboot or power loss of the device. In that situation the local time would be wrong until next NTP update after the reboot.</p>
71316	<p>LTE connection issues In some situations the Toby-L2 LTE modem disconnects and it takes several minutes until it reconnects again. We detect these situations now and speed up the reconnection time by sending a soft-reset command to the module. This reduces the reconnect-time substantially. It is also strongly recommended to update the module firmware to version 17.00 as we experienced less connection issues.</p>
71514	<p>Mixed up GNSS positions Due to a timing issue it could happen that in CLI a GNSS position was showing logitude and latitude from different measurements resulting in a position that was slightly off the track. This was fixed by making CLI GNSS requests atomic.</p>
72689	<p>GNSS TCP server NMEA streaming error TCP clients which were not able to process all the NMEA data they received from the server could disrupt the stream for other clients and lead to error messages on the router. This was fixed.</p>
72751 72827 73087 73126 73127 73778 73877	<p>GUI improvements The selection 3G/4G-only was added for devices with Toby-L2 LTE modules. It could happen that the Toby-L2 module did not find any 4G networks. This has been fixed. Settings for 'O' and 'OU' in the certificate configuration did not allow ampersand as valid character. This was fixed. The configuration interface for NTP settings did not wait for the underlying configuration process to finish it's tasks. It could happen that an error message was printed to the web interface if too many changes were applied too fast. The certificate list showed options to manage certificates for the MQTT server on devices which do not support MQTT. The check-box for NAT address selection in IPsec configuration was barely visible if not selected. The GUI allowed to select more than 4 bands for Toby-L2, although the module does not support this. Therefore the limitation is checked at configuration time now and will reject invalid settings.</p>
73083	<p>Automatic mobile data connection did not work with NRSW 4.5 The checkbox 'Configure automatic mobile data connection' which is presented on the log-in in factory state did not work as expected. This was fixed.</p>
73157	<p>Admin area for stationary devices On initial setup the admin area was set to 'mobile' for NB1601 and NB1800 by default. These devices are mostly used as stationary devices. Therefore this was changed. Existing configurations are not changed. This setting only optimizes some timing settings and does not have much impact on the functionality of the device.</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	Aug 3, 2021	Moritz Rosenthal	Final release notes

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