

# Release Note NRSW 4.4.0.107

---

**Project Name:** NRSW

## Abstract:

This document represents the release note for NetModule Router Software 4.4.0.107. It informs on new functionality, corrections and known issues of this software version of NetModule's router series.

## Keywords:

NetModule, Software Development, NRSW, Release Note

## Document Control:

<b>Document:</b>	<b>Version</b>	1.0
	<b>File</b>	NRSW-RN-4.4.0.107
	<b>Status</b>	Final
<b>Creation:</b>	<b>Role</b>	<b>Name</b>
	Author	Moritz Rosenthal
	Review	Benjamin Amsler
<b>Approval</b>	<b>Role</b>	<b>Name</b>
	Director Product Development	Benjamin Amsler

## 1 Release Information

---

### NetModule Router Software:

Version: **4.4.0.107**  
Date: **Dec 15, 2020**

### Supported Hardware:

<b>NetModule Router</b>	<b>Hardware Version</b>
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

**NetModule Insights**  
Subscribe to our mailing and get the latest news  
about software releases and much more



## 2 New Features

---

Case-#	Description
61835	<b>Higher performance for NB1601 (Rev B02) and NB800 (Rev B02)</b> The maximum CPU clock is increased from 600MHz to 1GHz, improving performance and throughput in several applications. CPU clock is adaptive (lower at high temperature and for low performance applications).
62466	<b>SNMP improvements</b> The SNMP EngineID is now configurable.
66086	<b>GUI improvements</b> A warning will alert the user if a WWAN module is running a firmware version which is known to be outdated and should be replaced with a newer one.
67884	<b>Additional status information on Toby-L2 LTE module</b> The signal to noise ratio of the LTE connection is made available via CLI, SDK and web interface.

### 3 Security Fixes

---

The following security relevant issues have been fixed.

Case-#	Description
<b>67956</b>	<b>libmodbus security bug fix</b>
<b>67957</b>	CVE-2019-14463: out-of-bounds read fixed CVE-2019-14462: out-of-bounds read fixed
<b>69400</b>	<b>OpenSSL security bug fix</b> CVE-2020-1971: Fixed NULL pointer deref in OpenSSL

## 4 Fixes

The following issues and problems have been fixed.

Case-#	Description
61505	<b>Password change did not apply on SNMP users</b> In some situations the SNMP user password was not applied with a change of the users system password. This was fixed.
62691	<b>/bin/login spamming logs</b> On some devices it could happen that a failing call of /bin/login spammed the logs if no serial interfaces were configured as login console.
62707 62811 62812 63301 63814 65987 67583	<b>GUI improvements</b> Configurations with several IPsec tunnels which were configured with expert-mode could lead to wrong tunnel status shown in the web interface. GRE tunnel keys were treated like passwords in the web interface and shown as asterisks. This was wrong, because GRE tunnel keys are not a secret, but only an identifier. Changing the shell of a user was not applied unless the user's current password was provided and changed at the same time. This was fixed. Now changing the shell of a user only requires the admin password for confirmation, but no user password or changed user password. The bridging status page was not accessible to non-admin users. The maximum file size for WWAN firmware-update files was increased to 45MB. This should be sufficient to perform most FW updates directly via web interface without the need for an external web or FTP server. Setting the MTU of a bridge device BR1 or BR2 failed with an error message. This was fixed. The MTU was not applied correctly to soft bridge devices.
63087	<b>Enable fast NTP synchronization after boot</b> Due to a misconfiguration the NTP client took up to 10 minutes to synchronize after the boot. This was fixed.
63112	<b>L2T P tunnels cannot be bridged</b> It was not possible to bridge L2TP tunnels to soft bridges BR1 and BR2. This was fixed.
64950	<b>GUI: WPA-Enterprise Identity</b> Setting the RADIUS identity had no impact to the configuration. The identity was always set to the hostname of the Router . This has been fixed.
65135	<b>SGL not enabled on 40 MHz channels</b> If WLAN was configured to run on 40MHz channels in client mode, the SGL feature was disabled.
65698	<b>Bridging multiple WLAN APs to different VLAN IDs could fail</b> In configurations with several WLAN APs bridged to different VLAN IDs it could happen that the association was broken.
65783	<b>Local services not accessible with IPsec</b> In some scenarios with multiple IPsec connections it could happen that local services like the web interfaces were not available via IPsec. This was fixed.
65880	<b>Unstable IPsec connection</b> In some use cases with several parallel connections IPsec was quite flaky due to timing issues on tunnel establishment. This was fixed.
65973	<b>SMS not working with shared modem configuration</b> SMS were not sent if the first WWAN interface was down even if the configuration was that the first available module should be used.
66213	<b>Link management</b> A bug in the dialin behavior on link-groups that resulted in preventing a switchover from happening was fixed.

Case-#	Description
66521	<b>Mail transmission failures fixed</b> Some MTA servers did not process mails with attachments from our SDK. This was due to a duplicate line in the mail header which is strictly not allowed in SMTP protocol. The duplicate line was removed.
67638	<b>SIM switchover failures</b> In some configurations the SIM switch-over with different SIMs on one WWAN module failed.
67952	<b>SNMP: missing MIB</b> The HOST-RESOURCE-MIB was unsupported by the Router. This has been fixed.
67977	<b>Reboot triggered by igmp proxy supervision</b> The system health supervision failed on some igmp proxy setups resulting in reboot of the device.
67986	<b>Support for NB1601-La</b> NB1601-La is now supported by NRSW.

## 5 Known Issues

---

Items listed here represent minor problems known at release time. These issues will be resolved in a later version.

Case-#	Description
<b>69195</b>	<b>USB3 mass storage devices handled as extended storage</b> External USB3 mass storage devices were handled as internal extended storage in NRSW versions prior 4.3.0.108 and 4.4.0.107. Therefore configurations which use such devices for use cases like virtualization need a manual configuration update. Please contact our support if you face any problems.



## 6 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](mailto:router@support.netmodule.com)

## 7 OSS Notice

---

We inform you that NetModule products may contain in part open source software. We are distributing such open source software to you under the terms of GNU General Public License (GPL)<sup>1</sup>, GNU Lesser General Public License (LGPL)<sup>2</sup> or other open source licenses<sup>3</sup>.

These licenses allow you to run, copy, distribute, study, change and improve any software covered by GPL, Lesser GPL, or other open source licenses without any restrictions from us or our end user license agreement on what you may do with that software. Unless required by applicable law or agreed to in writing, software distributed under open source licenses is distributed on an "AS IS" basis, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

To obtain the corresponding open source codes covered by these licenses, please contact our technical support at [router@support.netmodule.com](mailto:router@support.netmodule.com).

---

<sup>1</sup>GPLv2 license is available at <http://www.gnu.org/licenses/gpl-2.0.txt>

<sup>2</sup>LGPL license is available at <http://www.gnu.org/licenses/lgpl.txt>

<sup>3</sup>OSI licenses (ISC License, MIT License, PHP License v3.0, zlib License) are available at <http://opensource.org/licenses>

## 8 Change History

---

Version	Date	Name	Reason
1.0	Dec 15, 2020	Moritz Rosenthal	Final RN
0.1	Dec 10, 2020	Moritz Rosenthal	First draft

### Copyright © 1998 - 2020 NetModule AG; All rights reserved

This document contains proprietary information of NetModule AG. No part of the work described herein may be reproduced. Reverse engineering of the hardware or software is prohibited and is protected by patent law. This material or any portion of it may not be copied in any form or by any means, stored in a retrieval system, adopted or transmitted in any form or by any means (electronic, mechanical, photographic, graphic, optic or otherwise), or translated in any language or computer language without the prior written permission of NetModule AG.

The information in this document is subject to change without notice. NetModule AG makes no representation or warranties with respect to the contents herein and shall not be responsible for any loss or damage caused to the user by the direct or indirect use of this information. This document may contain information about third party products or processes. This third party information is out of influence of NetModule AG therefore NetModule AG shall not be responsible for the correctness or legitimacy of this information. If you find any problems in the documentation, please report them in writing by email to [info@netmodule.com](mailto:info@netmodule.com) at NetModule AG.

While due care has been taken to deliver accurate documentation, NetModule AG does not warrant that this document is error-free.

"NetModule AG" and "NetModule Router" are trademarks and the NetModule logo is a service mark of NetModule AG. All other products or company names mentioned herein are used for identification purposes only, and may be trademarks or registered trademarks of their respective owners.

The following description of software, hardware or process of NetModule AG or other third party provider may be included with your product and will be subject to the software, hardware or other license agreement.

NetModule AG is located at:

Maulbeerstrasse 10  
CH-3011 Bern  
Switzerland  
[info@netmodule.com](mailto:info@netmodule.com)  
Tel +41 31 985 25 10  
Fax +41 31 985 25 11

For more information about NetModule AG visit the NetModule website at [www.netmodule.com](http://www.netmodule.com).