

# Release Note NRSW 4.0.0.103

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**Project Name:** NRSW 4.0

## Abstract:

This document represents the release note for NetModule Router Software 4.0.0.103. It informs on new functionality, corrections and known issues of the current software version of NetModule's router series.

## Keywords:

NetModule, Software Development, NRSW, Release Note

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## 1 Release Information

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### NetModule Router Software:

Version: **4.0.0.103**  
Date: **October 31, 2016**

### Supported Hardware:

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

### Unsupported Hardware:

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

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## 2 New Features

Case-#	Description
43410	<b>Firewall Rules for OSPF</b> It is now possible to filter out OSPF packets by means of firewall rules.
43112	<b>Static Multicast Routing</b> We have added support for static multicast routes. Apart from IGMP Proxy, they can be used to implement bidirectional multicast routing.
42044 43327	<b>Console on Serial Port</b> The serial console can now be turned off completely. The KPL/KBOOT images are not required anymore.
40359 38375 43791	<b>SDK Transfers</b> The <code>nb_transfer</code> functions are now supporting ftps, https, imaps, pop3s, smtps and sftp. Files can now be downloaded to <code>/tmp</code> . We further fixed a flaw when checking URLs.
43454 43753	<b>New SNMP Extensions</b> We have added the following SNMP extensions: <ul style="list-style-type: none"> <li>• <code>nbGnssTable:gnssNumSatUsed</code></li> <li>• <code>nbAdmin::systemError</code></li> <li>• <code>nbWanTable::wanDataDownloadedRoaming</code></li> <li>• <code>nbWanTable::wanDataUploadedRoaming</code></li> <li>• <code>nbWanTable::wanLinkNetmask</code></li> <li>• <code>nbWwanTable::wwanIccid</code></li> <li>• <code>nbWlanTable::wlanSignalStrength</code></li> <li>• <code>nbWlanStationTable</code></li> </ul> Further, we have added tables of IF-MIB and IP-MIB.
41416	<b>Support for Disabling Ethernet Ports</b> It is now possible to turn off dedicated ports of the Ethernet Switch.
43666	<b>Support for En-/Disabling CAN Interfaces</b> It is now possible to turn on/off CAN interfaces by means of configuration settings.
42038 43712 43853	<b>Extended Storage</b> It is now possible to store syslog messages and SDK files on extended storage if available.
43806	<b>Additional DH Groups for IPsec</b> We have added Diffie-Hellman groups 16-21 used for IPsec.
42505 43749 43882	<b>Advanced Hardware Failure Detection</b> We are now detecting hardware failures at a very early stage and also periodically during runtime.
41400	<b>New Managed WLAN Implementation</b> We have upgraded to FreeWTP for managing WLAN access-points remotely.
43136	<b>USSD Queries on Sierra MC Modems</b> Sending USSD queries has been verified for Sierra MC7304/MC7354/MC7430/MC7455/MC9090.
43635	<b>Bootloader Password</b> The bootloader is now supporting SHA256 salted passwords. The password can now differ from the admin password.

### 3 Fixes

The following issues and problems have been fixed.

Case-#	Description
<b>43490</b>	<b>Bridged GRE TAP Tunnel</b> A GRE TAP tunnel bridged to a LAN interface didn't come up.
<b>43450</b> <b>43501</b> <b>43823</b>	<b>OpenVPN Tunnel</b> In some rare cases it happened that the OpenVPN client did not come up. This has been fixed. The OpenVPN status page is now properly displaying connected clients.
<b>43568</b> <b>31792</b>	<b>Invalid WWAN RSSI Value</b> The RSSI value was not correctly calculated. This has been fixed. We also updated the ASU tables in the Web Manager. The WWAN status page is now showing extended signal information.
<b>43560</b> <b>43561</b>	<b>SNMP Logging</b> In some scenarios it might have appeared that SNMP logs exhausted the log filesystem. This has been fixed.
<b>38735</b> <b>43720</b>	<b>SMS Fixes</b> Depending on the configuration, it turned out that SMS routes have not been applied correctly. The number of total send/received messages was wrong.
<b>43564</b>	<b>SFTP Transfers</b> The SFTP client is now creating directories and files with proper permissions.
<b>43491</b>	<b>Preferred Service Type</b> Depending on your modem, it may have appeared that the configured service type was not met. This has been fixed.
<b>43649</b>	<b>Flapping WLAN Links</b> The minimum required signal strength of WLAN client connections was only checked after the link came up which may have led to flapping links. This has been fixed. It's further possible now to configure higher suspend thresholds.
<b>43695</b> <b>43487</b> <b>43820</b> <b>43816</b> <b>43842</b> <b>43872</b>	<b>WLAN Configuration</b> The system faced various issues when setting up WLAN. This has been fixed.
<b>42069</b>	<b>WPA-PSK Passphrase Characters</b> We now support all characters for the passphrase as defined in IEEE 802.11i-2004.
<b>43655</b> <b>43815</b>	<b>Auto Update</b> The URL used for automatic updates now supports further characters like underscores. It is now mandatory to specify a proper config version and admin password when uploading a new configuration.
<b>43673</b> <b>43836</b>	<b>CLI Fixes</b> Expanding configuration parameters did not work. This has been fixed.
<b>43067</b> <b>43064</b> <b>40730</b>	<b>NAPT ARP Issue</b> In case NAPT rules were bound to an external Ethernet link it happened that bogus ARP messages have been sent. This has been fixed.
<b>43848</b> <b>43846</b> <b>43849</b>	<b>Ignition Sense</b> In some scenarios the ignition sense trigger was too sensitive. This has been fixed. The supply and ignition voltage is now shown by the CLI.
<b>43853</b>	<b>NB2800 Extended Storage</b> An extended storage device was facing problems in particular NB2800 variants. This has been fixed.

Case-#	Description
<b>42288</b>	<b>Security Fixes</b> The kernel has received patches for CVE-2016-7117 and CVE-2016-5195.
<b>43830</b>	

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## 4 Known Issues

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

Case-#	Description
<b>32507</b>	<b>No VRRP on Bridged Interfaces</b> VRRP over bridged interfaces is not implemented.
<b>36992</b>	<b>No SMS Delivery Reports</b> SMS delivery reports are currently not possible with Option GTM661/GTM671, Huawei EM820 and Sierra MC7710 modems.
<b>42851</b>	<b>No RSTP on Bridged TAP Devices</b> RSTP does not work on bridged TAP devices.

## 5 Pitfalls

Items listed as pitfalls are potential problems that may arise because of specific environmental conditions. There are currently no fixes planned for these issues.

Case-#	Description
<b>43624</b>	<p><b>CLI/SDK WWAN Signal Status</b></p> <p>Please note that the WWAN signal status is now showing RSSI, RSRQ, SINR, RSCP, ECIO as well as level and quality values. The MOBILE<sub>x</sub>_SIGNAL variable (showing the RSSI value) is now deprecated but has been retained to be backward-compatible with any scripts.</p>
<b>43624</b>	<p><b>Serial Port and Console</b></p> <p>Starting from NRSW 4.0.0.103, it is no longer required to install dedicated SPL/UBOOT images to avoid printouts on the external serial port. The SPL init string SPL V<sub>x</sub>.x.x.x has been removed, please adapt any scripts which rely on that.</p>

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## 7 Change History

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Version	Date	Name	Reason
1.0	2016-10-31	amsler	Release

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