

# Release Note NRSW 4.0.0.104

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**Project Name:** NRSW 4.0

## Abstract:

This document represents the release note for NetModule Router Software 4.0.0.104. 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

## Document Control:

<b>Document:</b>	<b>Version</b>	1.0
	<b>File</b>	NRSW-RN-4.0.0.104
	<b>Status</b>	Valid
<b>Creation:</b>	<b>Role</b>	<b>Name</b>
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## 1 Release Information

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### NetModule Router Software:

Version: **4.0.0.104**  
Date: **January 26, 2017**

### 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 - V1.4
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
43135 43880 44439	<b>Support for Huawei MC7430</b> The Huawei MC7430 is now supported. This modem does not support voice calls yet.
43644 44144	<b>New SDK Functions</b> USSD requests can now be issued using the <code>nb_ussd_query</code> function. We further added an <code>uptime</code> function which returns the number of seconds since bootup.
44049	<b>DHCP Server on Alias Address</b> The DHCP server was restricted to operate on the primary address. It can also use the alias address now.
42044	<b>NB2800 Console</b> It's now possible to enable the printout of the serial console.
44099	<b>NB2800 Voice Gateway</b> The NB2800 supports now up to 4 voice modems with up to 3 concurrent channels.
43053	<b>LXC Device Configuration</b> It is now possible to configure CAN devices which will be available in the LXC guest.
44296 44492 44117 44580	<b>New SNMP Extensions</b> The <code>nbGnssTable</code> is now showing horizontal speed, vertical speed and the track angle. The <code>nbAdminTable</code> is now showing the current system date. Counters for downloaded/uploaded data in the <code>nbWanTable</code> are now wrapped correctly. The IF-MIB is now returning proper <code>ifOperStatus</code> values. We also fixed some typos in the VENDOR MIB description.
44012	<b>TAB Completion for parrotlog</b> The parrotlog application does now expand any parameter if the TAB key is hit.
44336	<b>Enhanced IPsec Supervision</b> IPsec tunnels will now be reloaded individually if they are down for 1 minute. The whole IPsec service will be restarted if all tunnels are down for 3 minutes.

### 3 Fixes

The following issues and problems have been fixed.

Case-#	Description
<b>44591</b>	<b>Link State Flapping on NB3720/NB3800</b> The Ethernet switch on NB3720/NB3800 misleadingly reported a flapping link state. This has been resolved.
<b>43900</b>	<b>Voice Daemon Failures</b> Under some circumstances it may happened that the voice daemon terminated if a SIM switch has run at the same time which resulted in a reboot of the system. This has been fixed.
<b>43865</b>	<b>WTP Encrypted WLAN</b> Managed WLAN faced a race condition in case of rekeying errors which dropped the associated station. This has been fixed.
<b>43941</b> <b>43812</b>	<b>EM770 Modem Resets</b> It happened that a Huawei EM770 was not properly recognized after a reset. This has been fixed.
<b>44061</b> <b>44031</b> <b>41681</b>	<b>Modem Detection on NB2800/NB3800</b> It occurred sporadically that not all modems could have been recognized. This has been fixed.
<b>44328</b>	<b>WWAN Connections Not Dialed</b> It occurred in very rare cases that the WWAN connection could not be dialed. This has been fixed.
<b>43899</b>	<b>Catch Broken GPS Coordinates</b> The GPS daemon can now detect out-of-bounds coordinates and ignore the corresponding NMEA frames. This can be enabled by setting <code>gpsd.0.maxdist</code> to a maximum distance. Any frames reporting a bigger linear distance will then be ignored and the module will be reset if the situation does not improve.
<b>43972</b>	<b>No GPS Client Connections</b> The GPS daemon did not accept new client connections if certain NMEA frames have been retrieved. This issue has been fixed.
<b>43210</b> <b>44518</b> <b>44032</b>	<b>IPsec Firewall Issues</b> It occurred that firewall rules bound to an IPsec interface were not working correctly. Now, expect rules for IPsec peers are only created if IPsec is active.
<b>43837</b>	<b>IPsec Connections with AH SHA512</b> IPsec connections using the authentication algorithm SHA512 did not come up. This has been fixed.
<b>44027</b> <b>44571</b>	<b>Static Multicast Routing</b> It occurred that static multicast routes have not been applied in every case. This has been fixed.
<b>42505</b> <b>44438</b>	<b>FPGA Ping Check</b> The FPGA supervision occasionally returned false positives. This has been fixed.
<b>43893</b> <b>44114</b>	<b>Importing Certificates</b> Stacked CA certificates or WLAN client keys were not imported correctly. This has been fixed.
<b>43938</b> <b>40359</b> <b>44243</b> <b>44618</b> <b>44625</b> <b>44606</b> <b>44609</b>	<b>SDK Issues</b> Generating a techsupport via SDK cloud block the system. The <code>sysinfo</code> function suffered a memory leak. The <code>nb_scan_networks</code> function accepts uppercase interfaces now. The <code>nb_serial_write</code> function returned zero instead of the number of bytes written. The <code>nb_transfer</code> may have returned an invalid result for https/ftps URLs.
<b>44184</b>	<b>Special Characters in WLAN PSK</b> Special characters (& and \) have not been applied correctly which made the WLAN client authentication fail. This has been fixed.

Case-#	Description
44489	<b>DNS Server Configuration</b> It occurred that the DNS server did not come up if no DHCP server has been configured. This has been fixed.
44219	<b>Empty Configuration After Update</b> An empty configuration may have been generated if config conversion potentially failed after an update. This has been fixed.
44226	<b>Broken PPPoE Connections</b> In some cases PPPoE connections did not come up. This has been fixed.
44483	<b>Registration Issues ME909</b> The Huawei ME909 failed to register to LTE with some providers. This has been resolved.
44575	<b>PUK Unlocking</b> PUK unlocking failed in certain cases. This has been fixed.
44368	<b>Empty SMS Gateway</b> Some SIMs do not store the SMS gateway which made the WWAN connection fail. This has been fixed.
43856	<b>SSD Storage Errors</b> Some NB2800 routers up to HW version 1.2 faced a problem with the SSD storage. This has been fixed.
44142	<b>QoS ToS/DSCP</b> The QoS feature neglected the ToS/DSCP bits for some packets. This has been fixed.
44208	<b>Long Bootup</b> The NB1600/NB2700 faced long bootups if the serial port was not used for the console. This has been fixed.
43703	<b>GUI Fixes</b> A software update over the GUI could have failed under some circumstances. Hidden WLAN SSIDs will not be shown anymore. The IP-passthrough page is now listing valid interfaces only. The max. storage size for SDK is now proposing a proper value and unit. Certificates could only be deleted if all files have been installed. Particular AT and USSDs queries failed. The NAPT netmask is now validated correctly. It will be set to /32 if omitted. Show network address instead of IP in NAPT rule summary. The GNSS position page doesn't block anymore if OpenStreetMap service is not reachable. The GNSS position page is now able to handle additional charsets. Several typos on the GNSS and IPsec page have been fixed. The GUI is now able to show stacked certificates. Downloading OpenVPN expert mode files has been fixed.
43932	
43959	
43983	
44140	
44113	
44056	
44110	
44111	
44301	
41289	
44230	
44456	
44171	
44550	
44112	<b>CLI Fixes</b> The CLI now also shows the netmask of any LAN interfaces. The supply and ignition voltage on NB2800 is now shown correctly. Scanning the mobile networks timed out in some cases.
43846	
44180	

Case-#	Description
<b>40953</b>	<b>Security Fixes</b>
<b>43980</b>	Access to secret configuration variables for non-admin users is now forbidden.
<b>44089</b>	Run factory reset if recovery procedure is triggered via UBOOT.
<b>44216</b>	Don't trigger unwanted software updates.
<b>43761</b>	The ntpdate application has been upgraded to version 4.2.8p9.
<b>44478</b>	The strongswan suite has been upgraded to version 5.5.1.
<b>44288</b>	
<b>44298</b>	The kernel also received fixes for the following CVEs:
<b>44385</b>	
<b>44629</b>	CVE-2016-7910
<b>44386</b>	CVE-2016-7911
<b>44387</b>	CVE-2016-7914
<b>44383</b>	CVE-2016-7915
	CVE-2016-7916
	CVE-2016-7917
	CVE-2016-8646
	CVE-2016-8650
	CVE-2016-8655
	CVE-2016-8666
	CVE-2016-9555
	CVE-2016-9793
	CVE-2016-9794
	CVE-2016-9806
	We are not affected by CVE-2016-9685 and CVE-2016-10147.

## 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>43218</b>	<b>IPsec Expert Mode</b> The IPsec expert mode files are not installed automatically after a software update. Tunnels need to be reconfigured using the GUI/CLI.
<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

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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
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## 7 Change History

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Version	Date	Name	Reason
0.1	2017-01-17	amsler	Draft
1.0	2017-01-26	amsler	Final

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