

# Release Note NRSW 4.0.0.107

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**Project Name:** NRSW

## Abstract:

This document represents the release note for NetModule Router Software 4.0.0.107. 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: **4.0.0.107**  
Date: **August 01, 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 - V1.3
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
45052	<p><b>TCP Timestamps</b></p> <p>TCP timestamps are part of the PAWS (Protection Against Wrapped Sequence numbers) mechanism which avoid that TCP sequence numbers will wrap and break long data stream transfers on a very fast network connection. However, if TCP timestamps are enabled, a remote attacker can guess the uptime of the system which may indicate that no recent security patches have been applied. If desired, this option can be turned off now.</p>
45005	<p><b>SCEP CA Identifier</b></p> <p>We have added option to configure the CA identifier which is used to pair with the SCEP server.</p>
45677	<p><b>Number of Firewall Groups/Rules</b></p> <p>The number of firewall groups has been increased from 5 to 10. The number of firewall rules has been increased from 35 to 50.</p>
45787	<p><b>Secondary DHCP Relay Server</b></p> <p>It is now possible to specify a secondary DHCP relay server.</p>
45947	<p><b>GPS Flap Detection</b></p> <p>Under some rare circumstances it happened that the GPS signal was flapping and not getting stable anymore. It is now possible to set <code>surveyor.gnss.maxflaps</code> (max. number of flaps per 5min) and reset the module if exceeded.</p>
44470	<p><b>QoS and WLAN EAP</b></p> <p>If QoS was operating on a WLAN interface it may have happened that EAP packets were not delivered in in-time. They will now pass through the scheduler without any restriction.</p>
45029	<p><b>New Events</b></p> <p>Added <code>system-error</code> and <code>system-no-error</code> events which indicate service failures.</p>
45700	<p><b>Signature Algorithm for Certificates</b></p> <p>It is now possible to configure the signature algorithm used when creating certificates.</p>
45122	<p><b>Improved SMS Management</b></p> <p>The SMS daemon is now able to handle scrambled message indexes. Usually this does not happen but will be covered now.</p>
46298	<p><b>IP Address of WLAN Clients</b></p> <p>The IP address of WLAN clients will now be shown in CLI/GUI even if it has not been assigned via DHCP.</p>
45052	<p><b>Drop ICMP Packets with Timestamps</b></p> <p>With ICMP timestamps enabled, a remote attacker might be able to guess the uptime of the system. Thus, any ICMP packets containing timestamps are now being dropped.</p>
46520	<p><b>Serial Attributes for IBIS</b></p> <p>It is now possible to configure all required serial attributes for the IBIS interface.</p>

### 3 Fixes

The following issues and problems have been fixed.

Case-#	Description
<b>45483</b> <b>46019</b>	<b>ME909 Network Registration</b> Some private networks require the APN to be set prior to attaching to the network which was missing for Huawei ME909 modems. This has been resolved.
<b>45598</b>	<b>No Power-Up with Ignition Sense</b> It may have happened that the NB2800 did not come up again if ignition has been turned on while the system was going down. This has been fixed.
<b>46288</b>	<b>USB Devices on NB2800</b> Attached USB devices may have failed on NB2800. This has been fixed.
<b>41620</b>	<b>IPsec IKE Phase2 Defaults</b> If the IPsec peer disagreed about IKE phase 2 proposals it fell back to a set of default algorithms. This behaviour was not intended and was switched off.
<b>45813</b>	<b>USB Devices on NB37x1/NB3800</b> An USB device was not recognized if it was plugged in on system boot but had to be re-plugged after system came up. This has been fixed.
<b>46041</b>	<b>SDK-Startup Trigger after Software Update</b> The <code>sdk-startup</code> trigger didn't work on first bootup after a software update. This has been fixed.
<b>46372</b>	<b>Sierra MC7455 Connection Issue</b> The MC7455 used IPv4/IPv6 to dial a connection which failed with some providers which require IPv4-only. This has been fixed.
<b>44524</b> <b>44681</b>	<b>WLAN Module Missing</b> Rarely, the NB2800/NB37x1/NB3800 boxes failed to detect all WLAN modules. This has been resolved. Bootup may take longer.
<b>46198</b>	<b>Events via SMS/E-Mail</b> If the event manager was configured to send both, E-Mail and SMS, it may have failed. That did not happen when using either E-Mail or SMS.
<b>46225</b>	<b>DIO on NB37x1</b> The system reported wrong digital input/output states on NB37x1. This has been fixed.
<b>44524</b>	<b>Sierra MC7455 Missing</b> Rarely, the system failed to detect all Sierra MC7455 modules. This has been resolved.
<b>43501</b>	<b>OpenVPN Startup</b> In some rare cases the OpenVPN tunnel did not come up because its previous socket has not been closed properly. This has been fixed.
<b>46492</b>	<b>Extended Routes Not Applied</b> In case of more than one wanlink, with extended routes bound to a lower-prio WAN link, it may have occurred that routes were not set up in case the link switched back to the first WAN link. This has been fixed.
<b>46239</b> <b>46413</b>	<b>SDK Fixes</b> The <code>nb_transfer_post</code> function failed in case of an HTTPS URL. The <code>nb_ping</code> function wasn't able to ping a host located in a remote IPsec network and if the WAN link was using Ethernet. The issues have been fixed.
<b>46334</b>	<b>WLAN Antenna Gain</b> The WLAN antenna gain setting is now applied correctly.

Case-#	Description
<b>45423</b>	<b>GUI Fixes</b>
<b>45851</b>	Reset button did not reset all debug levels to default values.
<b>46354</b>	Automatic change of DHCP range failed on IP change.
<b>46031</b>	Switch WLAN off if mode is switched back to disabled.
<b>46048</b>	IPSec Tunnel Configuration could not be deleted.
<b>46400</b>	Only offer download button if IPsec clients are enabled.
<b>46030</b>	Add certificates to expert mode files. Don't switch to certificates page when generating ipsec clients. Use correct tunnel identifier when creating IPsec client expert mode files. Fixed downloading of IPsec expert mode files. The GUI did show the same bitrate for all connected WLAN clients.
<b>45727</b>	<b>Security Fixes</b>
<b>45738</b>	Strongswan IPsec received fixes for the following CVEs:
<b>45920</b>	CVE-2017-9022 CVE-2017-9023 The kernel received fixes for the following CVEs: CVE-2017-7308 CVE-2017-7472

## 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
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## 5 Pitfalls

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Items listed as pitfalls are potential problems that may arise because of specific environmental conditions.

Case-#	Description
<b>41620</b>	<p><b>IPsec IKE Phase2 Defaults</b></p> <p>As described, we turned off the automatic fallback to default algorithms in case the peer disagrees about proposals. This might break existing IPsec setups wich have an inconsistent configuration. Please double check that your IPsec configuration is sane before performing an update.</p>
<b>45052</b>	<p><b>Dropping ICMP Packets with Timestamps</b></p> <p>Please note that any ICMP packets with timestamps are now dropped which may break applications. Using timestamps is discouraged and therefore usually not wide-spread. However, please disable ICMP timestamps in case you face any issues.</p>

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## 7 Change History

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Version	Date	Name	Reason
1.0	2017-08-01	amsler	Final

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