

Release Note NRSW 4.4.0.105

Project Name: NRSW

Abstract:

This document represents the release note for NetModule Router Software 4.4.0.105. 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: **4.4.0.105**
Date: **Aug 14, 2020**

Supported Hardware:

NetModule Router	Hardware Version
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

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2 New Features

Case-#	Description
56817	WLAN short guard interval configuration The use of short guard interval (SGI) in WLAN access point can be disabled now for NB800 and NB1601.
63499	Firmware update for Dual-CAN module The CAN controllers of Dual-CAN modules can now be updated via web interface.
63606 63652	Port based DHCP addresses NB1601 and NB1800 now support port based DHCP address specification.
64975	Certificate revocation list download for IPsec The IPsec daemon now tries to obtain the CRL file if a CRL location is defined in the installed certificate chain.
65072	Wireless regulatory database The wireless regulatory database has been updated to its latest version.

3 Security Fixes

The following security relevant issues have been fixed.

Case-#	Description
62652	Linux kernel security bug fixes
63787	CVE-2020-8428: A use-after-free in the Linux kernel could allow local users to run a DoS.
63788	CVE-2020-10732: Uninitialized buffer might leak kernel data to user space on core dumps. The mainline bug fix was back-ported to NRSW. CVE-2020-12114: Possible denial of service by corrupted mountpoint reference counter. The mainline bug fix was back-ported to NRSW.
63780	Curl security bug fixes
63783	CVE-2019-5482: A malicious TFTP server could cause a heap corruption in libcurl.
63785	Libcurl can be tricked to prepend a part of the password to the host name before it resolves it, potentially leaking the partial password over the network and to the DNS server(s).
63786	CVE-2019-5436: Possible TFTP receive buffer overflow fixed. CVE-2019-5435: libcurl contains two integer overflows that if triggered can lead to a too small buffer allocation and a subsequent heap buffer overflow.

4 Fixes

The following issues and problems have been fixed.

Case-#	Description
60653	<p>Firewall rule blocked IPsec traffic from router</p> <p>In setups where all traffic but IPsec is blocked it could happen that packets from the router were unintentionally blocked as well even though they were supposed to be sent via IPsec. This was due to a missing firewall rule that was present for forwarded traffic, but was missing in the outgoing chain.</p>
62638 62764 62898 63448 65312	<p>GUI improvements</p> <p>The web interface did not allow to disable Dead Peer Detection (DPD). This was fixed.</p> <p>Due to a flaw in the GUI design it could happen that firewall rules could not be edited or deleted via web interface. This was fixed.</p> <p>The web interface enforced the first WWAN interface to be permanent. This restriction was not needed and therefor removed.</p> <p>The web interface did accept an empty pass phrase for WPA and WPA2 encrypted WLAN networks. Such a setup does not work and therefor the web interface will state an error now in such situation.</p> <p>USB storage devices were shown as extended storage on NB2800 and NB1800.</p>
62704	<p>NB1601 services cannot be accessed via IPsec</p> <p>An issue with packet fragmentation prevented to access services (like web interface or SSH access) via IPsec. Routed data traffic was not affected. This issue was fixed. If you relied on this malicious behavior as a feature, you should get in contact with our support to find a valid firewall configuration.</p>
63062	<p>Multicast packets not forwarded on NB1601</p> <p>Starting with NRSW release 4.3.0.100 multicast IP packets were not forwarded on switched Ethernet ports of NB1601. This was fixed.</p>
63312	<p>No default route on WWAN with custom APN</p> <p>There was a customer setup with a private APN where we failed to establish the default route over WWAN. The issue was fixed. Working APN setups are not affected by the fix.</p>
63466 63472	<p>WLAN stability improvements with NB800 and NB1601</p> <p>Some WLAN clients were sporadically loosing connection to NB800 and NB1601 if more than 5 WLAN clients were connected. This has been fixed.</p> <p>Some WLAN clients were sporadically loosing connection to NB800 and NB1601. This was fixed in a new firmware of the WLAN chip vendor which is shipped with this NRSW software release.</p>
63634	<p>CLI improvements</p> <p>The CLI status did not show SWI information for the second PDP context.</p>
63756	<p>SCEP enrollment did not work with Windows PKI</p> <p>Certificates provided by SCEP by a Windows PKI were not installed correctly. This has been fixed.</p>
64946	<p>WLAN output power improvements with NB800 and NB1601</p> <p>The output power did not match regulatory domains limits if used with antennas with a high gain. This has been fixed.</p>
65403	<p>Certificate chains from SCEP server</p> <p>Certificate chains installed via SCEP did not work with IPsec.</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 14, 2020	Moritz Rosenthal	Final release notes
0.1	Aug 12, 2020	Moritz Rosenthal	First draft

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