

3G M2M Router Plus (NTC-6200-02 / NTC-6200-12)

3G M2M Router (NTC-6200-13)

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Firmware Release Notes

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This document covers the following products:

NetComm Wireless NTC-6200-02

NetComm Wireless NTC-6200-12

NetComm Wireless NTC-6200-13

DOCUMENT VERSION	DATE
1.0 – Initial document release	03/02/2014
1.1 – Updated for v1.10.40.3	14/03/2014
1.2 – Updated for v1.10.40.4	22/05/2014
1.3 – Updated for v1.10.40.7	21/07/2014
1.4– Updated for v2.0.19.1	19/09/2014
1.5 – Updated for 2.0.21.1	09/12/2014
1.6 – Updated for 2.0.24.3	1/04/2015
1.7 – Updated for 2.0.24.4	30/06/2015
1.8 – Added NTC-6200-13	28/07/2015
1.9 – Updated for 2.0.36.7 and 2.0.36.8	8/4/2016
1.10 – Updated for 2.0.36.9	9/5/2016
1.11 – Updated for 2.0.36.10	3/7/2017
1.12 – Updated for 2.0.36.11	20/3/2020

*Table 1 - Document Revision History*

## Firmware Details

**Firmware Version:** 2.0.36.11

**Date:** 20 March, 2020

**Generic / Custom:** Generic

**Beta / Official:** Official

### File Names

MODEL	FIRMWARE FILENAME	MD5 CHECKSUM
NTC-6200-02 NTC-6200-12	ntc_6200_2.0.36.11.cdi	C69781C84B136995BF935AC9DD904437
NTC-6200-13	ntc_6200-x3_2.0.36.11.cdi	A0560365A3BE8BDB1E5318EDA1A7DC94

## Firmware Upgrade Instructions

Please refer to the steps described in the **NTC-6200-12 and NTC-6200-13 Firmware Upgrade Guide.pdf** document.





## Revision History

### v2.0.36.11

#### New Features

-  None.

#### Enhancements








-  Optimised the flash memory writing strategy to improve the product's operational life span (TT 38878)
-  Fixed an issue where clicking the Google Maps button didn't redirect to the correct location (TT 40103)
-  Fixed an issue where Advanced wakeup settings were not being saved (TT 40110)
-  Security Enhancements (TT 39734, TT 24771, TT 40176)

### v2.0.36.10

#### New Features

-  None.

#### Enhancements

-  Fixed an issue where, under certain circumstances, SMS and email notifications for events #1 and #4 were not being sent after a few days.
-  Improved the stability of the Event Notification feature.
-  Improved the security of the device.
-  Improved the reliability of the SMS function.
-  Fixed an issue where the '@' character was being appended to GSM 7-bit sent messages that are 161 characters long.
-  Updated the version of the User Guide embedded in the firmware.
-  Fixed the PPTP Verbose button not working.

## v2.0.36.9

### New Features

- None.

### Enhancements

- Enhanced the watchdog feature to reboot the router in situations where PDP connectivity is lost.
- Enhanced the watchdog feature to catch errors at system start up.
- Added TR-069 connectivity monitor to reboot the device if the ACS server is unreachable for extended periods of time.
- Enabled panic-on-oops option in kernel.
- Fixed a logging error related to VRRP.

## v2.0.36.7 / v2.0.36.8

### New Features

- None.

### Enhancements

- Fixed an issue where IPSec logging caused the device to reboot.

## v2.0.36.5

### New Features

- None.

### Enhancements

- Fixed an issue where the router was accepting a SIM PIN when it was already unlocked.
- Fixed an issue where the PIN retry indicator was missing when changing PIN protection or PIN code.
- Fixed an issue where PDP authentication is not updated when the user selects PAP authentication type.
- Fixed an issue where PDP authentication type is not updated when an APN is entered manually with no username or password.
- Added Japan to NTP time zones.
- Minor cosmetic updates.

## v2.0.36.1

### New Features

- None.

### Enhancements

- OpenVPN version updated to 2.3.6. Fixes vulnerability to DoS attack in OpenVPN version 2.1.4.
- Fixed an issue with some units where firmware upgrade via TR-069 was not working.
- Fixed bug with OpenVPN not working on port 16185.
- Updated Dynamic DNS provider list.

## v2.0.27.3

### New Features

- TCP Connect-on-demand Client endpoint in Data Stream Manager.
- The TCP connect-on-demand endpoint allows data to be buffered and then sent to a TCP server when the buffer has been filled. It is primarily useful in situations where you do not want 'keep alive' packets to keep the socket open and create an overhead when the TCP data connection is not in use.
- WAN Failover is now enabled. This means the router can automatically switch between WAN interfaces based on link status or ping responses. This requires the built-in Ethernet port to be configured in WAN mode and the use of a USB-to-Ethernet adapter to create a secondary WAN interface.
- LWM2M now has support for encryption.

### Enhancements

- Reliability and longevity of flash memory improved by implementing better error correction technique.
- A spurious data corruption in Modbus modes of Data stream manager fixed.
- Improvements on Web page for Package manager which did not display correctly when a large number of packages were installed.
- Fixed an issue where the OpenVPN client was not accepting URLs with underscores.
- Improved telnet password security.
- The user guide is now provided as an installed IPK to better utilize available storage.
- Corrected an issue where GPS display showed incorrect conversion in Latitude & Longitude.
- Increased the number of firewall filtering rules to at least 100, and provided a warning when the number of rules may be approaching the memory limit
- SMS "get sessionhistory" incorrectly displayed data units in KB, instead of MB. This is now corrected.

## v2.0.24.4

### New Features

- Translated GUI for Japan

### Enhancements

- None.

## v2.0.24.3

### New Features

- OMA-DM LWM2M support.
- Event Notification support for events based on digital and analog I/O pin states.
- CSD call support in Data Stream Manager.
- HTTPS and OpenVPN server certificate generation has been combined into the "Server Certificates" page under "System" in the Web UI.
- There is now support for configuring an IPSEC VPN as the default gateway.
- OpenVPN now supports the "tls-auth" option.
- More options added for configuring email destinations in event notification, including unauthenticated servers.

### Enhancements

- Fixed an issue where IPSEC pre-shared keys breaks the display of the html page when special characters are used.
- The package manager page in the Web UI was unable to display special characters (including some foreign language characters) properly.
- SMS were not able to be sent when using DoCoMo Japan SIM cards.
- A memory leak was found and fixed in the Event Notification feature. Users of previous releases can avoid this leak by disabling Event Notification.
- Toggle buttons in the Web UI will display the word "on" or "off" depending on the state, but only the word for the current state will be visible (instead of both words always being visible).

- Improvements to the kernel flash drivers to improve checksum handling and to help avoid situations where the UBIFS filesystem becomes read-only during error recovery.

## v2.0.21.1

### New Features

- For devices with built-in serial ports, there are 3 new endpoints for Data Stream Manager (DSM): PPP server, Modem Emulator, IP Modem. This allows DSM to replace the legacy modem emulator behaviour, by providing a way for serial port users:
  - for dial-up PPP clients, to connect through to a PPP server and hence the Internet via a (emulated) modem, or
  - to forward serial data to TCP/UDP endpoints, including support for incoming/outgoing calls via a (emulated) modem, or
  - AT (V.250) command emulation.
- Modem emulator remains present as a legacy option for existing customers and is located under the "Legacy data managers" section of the user interface; new users should use DSM rather than the legacy modem emulator.

### Enhancements

- Fix for a high CPU usage issue found in the TR-069 client.
- Fix for serial port RS232 control lines not properly following the standard.
- Fix for the high failure rate of PPP dialling over the serial port.
- Syslog settings are now on a separate page for clarity. The display level of the syslog is now remembered after refreshing or browsing to another page (but not across reboots). The default log level is set to LOG\_NOTICE.
- When uploading RSA keys for IPSEC, the upload status is now displayed correctly.
- Details of uploaded HTTPS certificates are displayed in the user interface.
- Fix to SMS pages displaying the incorrect total number of pages, plus other cosmetic fixes.
- Data Stream Manager automatically opens firewall for the ports that it uses.
- Timezones for Asia/Riyadh added.
- SNMP package, net-snmp has been upgraded to version 5.7.2.1.
- Decrease the time taken to load help and file upload pages.
- Users are now warned when enabling remote access to the device not to use insecure passwords.
- Progress of generating HTTPS certificates is now displayed in the user interface, and the time taken to generate certificates has been reduced.

## v2.0.19.1

### New Features

- Event Notification: this feature allows SMS, TCP, UDP or email notifications to be sent when certain system events occur on the device. See the user guide for more information.

### Enhancements

- RDB variables can now store longer values (up to 4096 characters).
- The RDB header rdb\_operations.h and rdb\_lib.a have now been deprecated in favour of rdb\_ops.h and rdb.a. The newer library contains an updated API that is similar to the old API but now functions include a session handle so that calls are thread-safe. Note that rdb\_set is binary clean now, so it should be passed zero-terminated arguments. A new API rdb\_set\_string will add zero-termination to the end of strings.
- The OpenSSL library has been updated to version 1.0.1h.
- The Net-SNMP package updated to version 5.7.2.1.
- The system log now defaults to 'Error' level, so that errors are not obscured in the log. It is also now possible to capture logs at one level, and display them at another level.
- Fixed: manual band selection sometimes does not persist across power-cycles.
- On networks that support this option, it is now possible to request a static IP address on WWAN connection via the profile settings page. Note that some networks may ignore or even reject this request.

- Fixed: If the modem emulator feature is enabled, it may prevent the data stream manager from bringing a stream back up after disconnection. The workaround is to disable modem emulator when not in use.

### v1.10.40.7

#### New Features

- Changed uboot sequence to reduce component stress during device boot.
- Added support for DoCoMo MOPERA (Static IP) service in WebUI

### v1.10.40.4

#### New Features

- Added support for USB OTG 'Device' mode auto-detect.
- Fixed: Connection uptime doesn't sync with System uptime.
- Fixed: WWAN/3G connection detection failure.
- Fixed: UDP traffic inhibited when modem emulator is ON.
- Fixed: IPSec local ID/Remote ID not working.
- Fixed: Local access to web UI intermittently lost.
- Fixed: WWAN connection instability when using USB Host mode.
- Fixed: External USB port not switching automatically between modes.
- Fixed: Modem emulator not functioning correctly when used in conjunction with external USB port (Device mode).
- Fixed: Reset to factory default settings in recovery mode doesn't clear session history records.
- Fixed: Backup configuration file doesn't include local access control settings.
- Fixed: Backup configuration file doesn't include manual operator selection settings.
- Fixed: Backup configuration file doesn't include band settings selection.
- Fixed: SSH not working correctly.
- Fixed: Cosmetic issues in web UI.

### v1.10.40.3

- Added support for USB 2.0-to-Ethernet adapters.
- Added support for USB-to-Serial convertors.
- Added support for USB mass storage devices (USB / flash drive, hard drive etc).
- Added support for NTFS based USB mass storage devices.
- Added support for IPSec private Openssl generated keys.
- Added support for using domain name to configure IPSec/GRE/OpenVPN-client.
- Implemented IO control functionality.
- Implemented updated User Guide / Quick Start Guide.
- Added support for USB OTG port to auto-detect 'Host' mode.
- Fixed: WWAN connection unstable during bi-directional UDP stress test.
- Fixed: WWAN disconnection issue.
- Fixed: OpenVPN connection conflicting router firewall.
- Fixed: OpenVPN certificate management network details have been made optional rather than mandatory.
- Fixed: Sporadic router reboot.
- Fixed: Data stream manager not triggering originated SMS correctly.
- Fixed: Random kernel crash.
- Fixed: Data stream manager issue - circuit switched auto answer.
- Fixed: Modem emulator log messages not displayed correctly in System log.

- 📶 Re-designed GPS menu options to be dynamically listed (NTC-6200-12 only)
- 📶 Fixed: Incorrect ignition IO log messages.
- 📶 Fixed: Support for serial interfaces RS-422/RS-485.
- 📶 Fixed: LAN subnet mask not applying changes appropriately.
- 📶 Fixed: Modbus connection stability over LAN/WAN.
- 📶 Fixed: Built-in and external serial port conflicts.
- 📶 Fixed: Low power mode doesn't go to sleep after a specified period.
- 📶 Fixed: Resetting to factory defaults in recovery mode does clear SMS inbox/sent items.
- 📶 Fixed: Changed I/O configuration behaviour when selecting NAMUR/Contact closure input pins.
- 📶 Fixed: NTP synchronisation issue.
- 📶 Added support for using modem emulator on serial external port.
- 📶 Added support for flow control mode (Xon/Xoff) for serial interface mode RS-232.
- 📶 Added support for selecting all/part of SMSs on inbox/sent items as a group.
- 📶 Added support for resetting unit to factory defaults via SNMP.
- 📶 Added support for retaining SNMP configurations after resetting to factory defaults via SNMP / TR-069.
- 📶 Added support for launching multiple PPTP tunnels simultaneously.
- 📶 Fixed: IPSec tunnel connection establish.
- 📶 Fixed: Enabling/disabling data stream manager disrupting configured streams.
- 📶 Fixed: Enable/disable/remember SIM PIN functions.
- 📶 Fixed: modem emulator to be disabled by default.
- 📶 Fixed: Cosmetic issues in web UI.
- 📶 Fixed: LED colour sequence in recovery mode.
- 📶 Fixed: Data usage not retained after reboot.
- 📶 Fixed: Data stream manager not saving profile settings correctly.
- 📶 Added support for ALL ('0.0.0.0') IP addresses and subnet mask prefix '/0'.