



Release Notes

Firmware NTS-3000/4000/5000



TABLE OF CONTENTS

FIRMWARE 221001.....	2
FIRMWARE 220901.....	3
FIRMWARE 220701.....	4
FIRMWARE 220601.....	5
FIRMWARE 220426.....	7
FIRMWARE 220401.....	11
FIRMWARE 220301.....	12
FIRMWARE 211221.....	13
FIRMWARE 211005.....	15
FIRMWARE 210901.....	16
FIRMWARE 210525.....	20
FIRMWARE 210505.....	21
FIRMWARE 210223.....	24
FIRMWARE 210124.....	25
FIRMWARE 201211.....	25
FIRMWARE 201201.....	26
FIRMWARE 201112.....	28
FIRMWARE 201008.....	29
FIRMWARE 200705.....	30
FIRMWARE 200701.....	31
FIRMWARE 200630.....	31
FIRMWARE 200615.....	32
FIRMWARE 200610.....	32

FIRMWARE 200602.....	32
FIRMWARE 200601.....	33
FIRMWARE 191205.....	33
FIRMWARE 191201.....	34
FIRMWARE 191101.....	34
FIRMWARE 190930.....	34
FIRMWARE 190928.....	35
FIRMWARE 190926.....	35
FIRMWARE 190925.....	36
FIRMWARE 190920.....	37
FIRMWARE 190915.....	37
FIRMWARE 190905.....	38
FIRMWARE 190715.....	38
FIRMWARE 190705.....	39
FIRMWARE 190701.....	39
FIRMWARE 190625.....	39
FIRMWARE 190405.....	40
FIRMWARE 190315.....	41
FIRMWARE 190305.....	41
FIRMWARE 190105.....	42
FIRMWARE 161128.....	42
FIRMWARE 161126.....	43
FIRMWARE 161122.....	43
FIRMWARE 161120.....	44
FIRMWARE 161116.....	44
FIRMWARE 161114.....	45
FIRMWARE 161110.....	45
FIRMWARE 161026.....	46

FIRMWARE 161024.....	47
FIRMWARE 161022.....	48
FIRMWARE 161020.....	48
FIRMWARE 161018.....	48
FIRMWARE 161016.....	49
FIRMWARE 161014.....	49
FIRMWARE 161012.....	50
FIRMWARE < VERSIONS 2000-2015>.....	50

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Revision History

Rev	Date	Comment
1.0	2019-06-26	New template format

Important note!

The reference number codes a date of FIRMWARE release in format YYMMDD

FIRMWARE 221001

New features and improvements

Libraries:

- Updated OpenSSH to version 9.1p1
- Updated Zabbix to version 5.0.28
- Updated OpenSSL to version 1.1.1q

Root filesystem:

- Fixed upgrade procedure from firmware versions earlier than 2020
- Added default time zone value to settings if was missing

GNSS Driver:

- Fixed Ublox modules using wrong timescale for PPS in some cases
- Improved power control of the antenna module

SSH setup:

- Fixed incorrect SHA key being saved as NTP authentication key
- Added SHA-512, SHA-384 and SHA-256 to configuration
- Fixed incorrect handling of NTP authentication keys set using WWW setup

FIRMWARE 220901

New features and improvements

WWW:

- Added kernel log to log package downloaded from ‘Monitoring’ tab
- Hidden serial number, firmware version and model for anonymous users

Root filesystem:

- Updated leap seconds file (valid until 28 June 2023)
 - No leap second will be inserted during that time
- Fixed possible memory leak during boot process

CS5071:

- Fixed program failing to load configuration in some cases

SSH setup:

- Moved GPS monitoring window to GNSS section
- Blocked write of NTP auth key when no ID was selected (similar to inputting ‘0’)

NTP:

- Added information to syslog related to authentication/decrypt error

Zabbix:

- Added NTS template (available to download from firmware corresponding catalog)
- Added new keys related to OCXO, RB, system, temperature, synchronization (details in template)

Rubidium:

- Improved writing of state to memory

PTP:

- Added syslog information related to link state

FIRMWARE 220701

New features and improvements

WWW:

- Fixed incorrect uptime value after one month (uptime being one month short)
- Hidden server firmware version before signing in

Zabbix:

- Fixed user not being created properly (Zabbix not working properly)

Root filesystem:

- Fixed system not starting properly after firmware upgrade (missing configuration field)

FIRMWARE 220601

New features and improvements

libraries:

- Updated OpenSSL to version 1.1.1p

Root filesystem:

- Removed default ssh factory keys – now ssh keys are generated at first startup & after firmware upgrade
- Added extended PTP configuration on LAN ports
 - Added LAN-PTP keys to configuration file
 - Added configuration of basic PTP parameters
 - PTP on LAN/VLAN can be only used as Master device
 - Removed PTP firewall key in LAN settings
- Changed boot order of some components to improve stability
- Removed excessive reconfiguration of CS5071 module
- Added Antenna Timescale key to configuration
 - Synchronization to GST/UTC is possible but GST is not compatible with standard NTP networks
 - Available only for Ublox antennas
- Removed input of NTP broadcast IP address – now determined automatically using broadcast address on port
- Assigned some factory values to new fields to make setup easier

WWW:

- Removed displaying of Survey-in process for NV08 antennas (that were empty)
- Added option to download logs history via browser in Monitoring tab
- Fixed CWE-78 vulnerability
- Fixed CWE-284 vulnerability
- Fixed CWE-94 vulnerability
- Added Timescale input to Antenna tab (available only for Ublox antennas)
- Removed NTP broadcast IP input

- Fixed bug that blocked negative antenna cable delay inputs
- Added PTP-LAN tab - configuration of PTP Master ports on standard LAN ports
- Removed PTP firewall checkbox in LAN tab

SSH setup:

- Fixed quick SIGINT (ctrl+c) blocking saving of configuration when exiting menu
- Moved GNSS configuration from MISC to separate menu
- Added Antenna Timescale configuration
- Removed NTP broadcast IP input for LAN ports
- Added PTP configuration for LAN ports

GNSS Driver:

- Speed & reliability improvements
- Added support for GST timescale for Ublox modules

NTS Upgrade:

- Released new version of nts-upgrade program
 - Now available for both Linux and Windows
 - Increased security of upgrade process
 - Upgrade to this firmware must be done with old nts-upgrade
 - In future firmware versions old upgrade program will cease to work

FIRMWARE 220426

New features and improvements

libraries:

- Added Zabbix 5.0.20

Root filesystem:

- Migrated VLAN & Routing configuration to main config file
- Added Bridge functionality to the system
- Added bridge related kernel modules to the system
- Added Zabbix agent to the system
- Added Timer (CS5071) to all firmware builds
- Added new keys to configuration (VLAN, Routing, Bridge, Zabbix, CS5071)
- Removed 'Enabled' key from sync sources from main config
- Added support for all services via VLAN
- Fixed outdated OpenSSL sslv3 warning from syslog
- Fixed ptpd restarting when started on LAN port without IP address
- Enabled IPv6 Network Solicitation without IPv6 gateway being set
- Fixed IPv6 gateway not being applied to non-local links
- Added syslog information when creating syslog directory on additional SSD
- Fixed syslog restart not working properly (internal system function)
- Added extra verification of syslog directory existence on additional SSD
- Prevented Network Solicitation daemon starting on unused interface
- Changed PTP hardware restart methods to avoid excessive PTP card restarts
- Significant code improvements & refactor
- Added renaming of old PTP config file to new one (ptp2.json.O) on system start

WWW:

- Added CARP setup tab
- Added Route setup tab
- Added VLAN setup tab
- Added CS5071 configuration in Time tab

- Added Zabbix configuration in Notifications tab
- Added Bridge configuration in LAN tab
- Fixed SNMP server & port not being visible for read-only admin
- Changed SNMP port input fields to allow only numbers input
- Added extra verification of visibility & delay input in Antenna tab
- Fixed IPv6 gateway input being saved incorrectly when writing just zeros
- Changed IPv6 address & gateway to be replaced with empty if whole address is empty or only zeros
- Changed translation for some error messages in Antenna tab
- Fixed GAL & BD being mutually exclusive instead of GLO & BD for Ublox LEA/NEO-M8T
- Fixed typo for survey message in Antenna tab
- Added translation for survey error message in Antenna tab
- Unlocked IMES for Ublox NEO/LEA-M8T (not visible on satellites display, but can be used)
- Set minimum password length during first login to 8 characters
- Hidden PTP & Time tabs for 'User' type
- Fixed some browser console warnings when changing settings
- Fixed WWW restarting PTP hardware when applying settings
- Fixed WWW factory password change not being applied to SSH & FTP

SSH setup:

- Code & GUI rework:
 - Grouped Network related settings into single tab with submenus
 - Grouped Notifications related settings into single tab with submenus
 - Change outlook for many tabs
 - Optimized memory utilization
- Added Bridge configuration
- Changed VLAN configuration tab
- Changed Routing configuration tab
- Changed generated IP format in system config
- Added Timer (CS5071) configuration tab
- Added Zabbix configuration tab
- Added PPS priority selection tab

- Added security options (for WWW) configuration

Zabbix:

- Added agent to the system
- Includes data from GNSS & NTP

CS5071A:

- Added support in standard firmware rather than specialized firmware
- Requires separate licensing in order to work
- Added 'pure' mode - mutually exclusive with antennas
- Fixed typo in syslog message related to license

GNSS Driver:

- Fixed potential memory leak when printing data to syslog (satellites related)
- Enabled IMES constellation for Ublox LEA/NEO-M8T
- Changed minimum & maximum visible/tracked satellites for Ublox LEA/NEO-M8T
- Increased stability of Ublox modules start procedure
- Reduced tolerance of driver to communication errors - more request-response checking. May result in unexpected antenna restarts if something was damaged
- Disabled RO antenna option for Ublox (unused feature)
- Fixed new settings being ignored until month value was correct
- Fixed problem with active satellites parsing that resulted in sudden drop to zero for GPS
- Reduced amount of satellites related logs printed by driver
- Reduced minimum required precision for Ublox LEA/NEO timing mode survey-in to 3m (from 1m)

PTP setup:

- Changed config method to system based to avoid excessive restarts
- Changed PTP config file name to ptp2.json.O (from ptp2.json.old)

FIRMWARE 220401

New features and improvements

root filesystem:

- Enabled router advertisement (Network Solicitation)
- Added rtsold daemon (for Network Solicitation)
- Updated leap-seconds file

WWW:

- Fixed translation in error message in Antenna tab
- Clear IPv6 inputs when contain only zeros
- Code refactor in LAN tab
- Remove console error in Notifications tab
- Some visual changes

GNSS Driver:

- Code refactor
- Fixed parsing error of higher visible satellites than possible for Furuno modules
- Fixed sudden drops of used satellites to zero for single second
- Added extra verification for Ublox constellation change
- Added syslog information about RO antennas
- Fixed possibility of false-positive RO antenna detection

FIRMWARE 220301

New features and improvements

root filesystem:

- Added WWW security keys do configuration
- Fixed gnss process hanging after changing port direction
- Added factory port to SMTP

WWW:

- Fixed mail inputs in Services->Notifications tab
- Changed IPv6 input to short version (split into many fields)
- Added information about antenna not being connected in System->Antenna tab
- Blocked Galileo & Beidou being simultaneously selected for Ublox NEO/LEA antennas
- Added timing mode progress monitoring in System->antenna tab
- Enforced password change on first login
- Fixed typo in Network tab
- Blocked selection of inaccessible constellations
- Blocked ability to deselect all major constellations
- Added unban function to Security tab
- Added ban duration in Security tab
- Fixed excessive options being available for read-only antenna
- Fixed failed_logins amount not being permanently saved
- Repositioned password related information in Security tab
- Some code refactor
- Fixed MAC address being empty after factory reset
- Added IPv6 gateway configuration

SNMP:

- Fixed LAN traps having 'warning' severity at startup
- Added additional security against 'http restart' trap spam
- Changed uptime function to libnfts based one
- Fixed process uptime calculation on NTP time change

- New MIB file:
 - Previous MIB file (firmware 211221) is compatible
 - Changed many field/trap descriptions

GNSS Driver:

- Added additional clearing on exit
- Reworked time processing algorithm
- Fixed false start for NV08 antennas

Front panel setup:

- Removed MAC configuration

SSH setup:

- Fixed configuration save that removed WWW security related stuff
- Fixed issue where randomly MAC address would be set to zero
- Added IPv6 gateway configuration

PTP:

- Fixed port asymmetry not being applied to both ports in 2xSFP configuration

libraries:

- Updated openssl library to 1.1.1n (fixed CVE-2022-0778)

FIRMWARE 211221

New features and improvements

System features:

- Improved system stability by removing generation of crash logs
- Increased priority of sync processed and SNMP process

OCXO:

- Moved excessive debug information to debug section of syslog

PTP:

- Fixed sync enable flag being incorrect for M88 in specific cases
- Added firmware upgrade for M88 (with version checking)
- Added new stability improvements

SNMP:

- Fixed typo in rubidium trap name
- Fixed false-positive alarm for ntsStepSyncAlarm (via process priority)

WWW:

- Allowed input of negative cable delay for antennas
- Added information when static position of antenna is incorrect
- Disabled reset of non-monitored processes in Services tab
- Changed factory reset alert
- Disabled constellation editing for antennas if not set to input
- Added option to show and edit antenna constellation if not connected (which is verified by driver if correct)
- Fixed console error if IP is incorrect
- Added information what ports are incorrect (by repeating in other service)
- Size alignment of fields in Time tab
- Extended support for FR and DE languages in Security tab

GNSS Driver:

- Improved timestamping algorithm

FIRMWARE 211005

New features and improvements

Email:

- Fixed file descriptors not being closed causing crash after some time

System features:

- Updated leap-seconds file (no leap second change expected)

Irigin:

- Fixed incorrect time zone bit mask

Irigout:

- Added support for IEEE 1344

Setup SSH:

- Fixed ANT statuses in monitor window having wrong values

Time output simulation:

- Fixed CCSA checksum being incorrect
- Fixed byte order in CCSA frames
- Changed output settings to use one stop bit (two previously)

FIRMWARE 210901

New features and improvements

System features:

- Enabled PPS on WWVB clock
- Added system log saving to SSD disk (if installed)
- Added serial number to default hostname
- Fixed old IPv6 addresses not being cleaned up on change
- Fixed some pid files naming
- Added calibration of WWVB clock

System libraries:

- Updated curl to 7.78
- Updated zlib to 1.2.11
- Updated libxml2 to 2.9.12
- Updated gettext to 0.21
- Updated libev to 4.33
- Updated pcre to 8.45
- Updated slang to 2.3.2
- Updated openssh to 8.6p1
- Updated msmtmp to 1.8.15
- Updated janson to 2.13.1

- Updated lzo to 2.10
- Updated lighttpd to 1.4.59

NMEA output:

- Added support for CCSA frames
- Fixed output not being sent in some cases

SSH setup:

- Added system log reading window
- Fixed constellation being removed when changed antenna direction
- Changed default constellation to GPS+GLONASS

GNSS Driver:

- Added full support to standard NMEA ZDA frame
- Added support for CCSA frames
- Fixed Furuno antennas crashes with read-only options
- Fixed data not being read correctly when using optical cable
- Improved speed of baudrate detection algorithm
- Fixed last frame being ignored for remainder of the second in Ublox antennas
- Fixed ZED-F9T antenna cable delay not being applied
- Fixed IMES constellation causing crash on some Ublox antennas (without IMES support)
- Improved cleanup on driver kill

SNMP:

- NEW MIB FILE VERSION!!!
 - Splitted Irig trap/object into Irigin and Irigout
 - Added system trap tree

- Added HTTP start alarm
 - Added authentication alarms
 - Added system objects tree
 - SMI-v2 compliance changes (naming changes, reverse mappable objects)
 - Changed names of some objects
 - Descriptions update
 - Added process uptime to objects
 - Added all process uptime objects (non-functional, for future development)
- Added process uptime information to traps
 - Significant code refactor
 - Fixed incorrect OID names of PTP objects in system log
 - Improved alarm cause analysis and changed data included
 - Fixed alarm cause not detecting process restart
 - Fixed GNSS alarms not getting ended by SyncInfo trap

WWW:

- Updated jQuery to 3.6.0
- Updated Smarty to 3.1.39
- Added DHCP configuration option
- Blocked option to disable all major GNSS constellations in Antenna tab
- Fixed button size in FR language
- Moved timezone setting to System->Time tab
- Added clear information in GNSSx tab when antenna is disconnected
- Removed visibility from GNSS tab when antenna is disconnected

- Added syslog information about factory reset
- Added MAC address information on dashboard
- Added SNMPv3 engineID displaying in Notifications tab
- Added MAC configuration in LAN tab
- Added clearing of static location in antenna menu if 'Predefined position' setting has changed
- Changed visible tabs and permissions for non-admin users
- Fixed non-admin being able to change some settings
- Fixed whole website being blocked on too many login attempts (now blocking user)
- Allowed ability to change antenna constellation when device is not connected
- Added SNMP traps for authentication attempts (both success and failed)
- Added syslog information about authentication attempts
- Fixed 'save' button not being highlighted on hostname change
- Removed duplicated logout button
- Hidden constellation settings for antenna output options
- Blocked 'Predefined position' and other options for read-only antennas
- Fixed GNSS settings being ignored in in specific case
- Fixed CVE-78 vulnerability for logged users
- Fixed factory reset not working in Firefox

Code improvements:

- Fixed potential memory leaks
- Improved code with new standards compliance

FIRMWARE 210525

New features and improvements

- LCD - Added information while saving configuration or generating SSL keys
- GNSS Driver - Added more strict time validity check

Bugfixes

- WWW - Fixed system logs not being displayed due to invalid UTF character
- Syslog - Added information when CPU temperature on main sensor exceeds normal value
- System - Added CPU temperature monitoring from multiple sensors to improve temperature readings
- System - Fixed the duplicating SSL key generation process
- System - Fixed SNMPv3 engineID not being regenerated on MAC change
- System - Fixed factory reset not being executed via WWW on some platforms
- System - Forced server reset after factory reset

FIRMWARE 210505

New features and improvements

- FTP - Added preview of whole logs catalog rather than single file
- FTP - Enforced usage of passive FTP, added port range configuration
- FTP - Added FTPS option
- LCD - Added displaying of Galileo/Beidou satellites
- Console setup - Added monitoring window with synchronization statuses and basic parameters
- Console setup - Added factory reset option
- Console setup - Added new FTP configuration options
- Console setup - Added FTP to LAN firewall setup
- Console setup - Added input of NTP websites via string
- Console setup - Added skipping remaining of NTP/SYSLOG/RADIUS inputs if current input is empty
- Console setup - Extended DNS input fields to 4
- NTP - Updated to 4.2.8p15
- SSL keys - Updated certificate location of Elproma to Czosnow
- WWW - New SNMP menu structure
- WWW - Hidden unneeded options for SNMP specific protocol versions
- WWW - Added SNMP configuration fields checking with error messages

- WWW - Added monitoring window with FTP configuration, time sources state and system log preview
- WWW - Added FTP button for LAN firewall configuration
- WWW - Added factory reset option
- WWW - Added registering all login attempts to syslog
- Libraries - Updated VSFTPD library to version 3.0.4
- System configuration - Updated leap seconds file
- System configuration - Increased syslog backlog to 3MB
- SNMP - Added logging of SNMP trap content to system logs
- SNMP - Allowed objects usage without traps
- SNMP - Reduced severity of NTP alarm
- SNMP - Unified severity of TimeStep alarm for all cases

Other significant changes

- System configuration - Removed empty logs from being created at startup
- System configuration - Removed facility option from remote syslog configuration
- GNSS Driver - code improvements
- GNSS Driver - temporarily disabled dynamic constellation check (will be reintroduced in next firmware) for stability reasons

Bugfixes

- FTP - Disabled anonymous user access
- Console setup - Fixed crash when configuring FTP port if Mail port was not set

- Console setup - Fixed 'restart services' menu being too short
- Console setup - Fixed possible memory leak
- Console setup - Removed empty field in AUTH menu
- WWW - Fixed uptime on dashboard starting from 12h
- WWW - Fixed 'admin read-only' user being able to change time & change time source priorities
- WWW - Fixed some translations
- Firmware - Fixed missing FTP/MAIL binaries happening under specific build bug

FIRMWARE 210223

New features and improvements

- SNMP - Added end condition to Timestep trap based on internal NTS time and external GNSS data
- SNMP - Added information to syslog when Trap occurred
- SNMP - Added new revision to NTS-MIB and clarified some descriptions
- SNMP - Changed engineID generation method to use MAC address of LAN1
- SNMP - Fixed trap port not being applied in SNMPv3
- GNSS Driver - Code improvements
- Console setup - Added FTP blocking in port configuration
- Console setup - Added SNMP service restart option
- Console setup - Added displaying of SNMPv3 engineID
- Console setup - Changed order of SNMP inputs
- Console setup - Removed SNMP community input if SNMPv3 selected
- Console setup - Added minimum length of community & SNMPv3 user
- Libraries - Updated PHP library to version 7.2.34
- Libraries - Updated Openssl library to version 1.1.1k
- Libraries - Patched SNMP library
- Rubidium Driver - Fixed jitter jump under specific condition

FIRMWARE 210124

New features and improvements

- SNMP - Extended trap support for OCXO, PTP, IRIG, RB
- SNMP - Added debugging data to Traps
- SNMP - New MIB file structure
- SNMP - Added sync status polling
- LCD - MAC input & display on front panel

FIRMWARE 201211

New features and improvements

- SNMP - SNMPv3 password clearing when SNMPv1/v2 was enable

Bugfixes

- Factory Configuration - Removed some features from being enabled by default
- Factory Configuration - Removed default values from all unnecessary fields
- GNSS Driver - Fixed false positive detection of read-only antenna
- GNSS Driver - Fixed Furuno environmental logging
- GNSS Driver - Fixed Ublox antennas getting stuck at start

- GNSS Driver - Fixed satellites displaying when single constellation was used

FIRMWARE 201201

New features and improvements

- SNMP - Added support of SNMPv3
- SNMP - Added selection of SNMP version
- SNMP - New MIB structure & fields
- SNMP - New TRAPs structure
- SNMP - Added custom port support
- Console setup - Added default menu for read-only antennas
- Console setup - Added new tab for hostname input
- Console setup - Added new SNMP configuration options
- Configuration - Added default MAC value
- GNSS Driver - Support for read-only antennas
- GNSS Driver - Added configuration update if module support different set of constellations than set
- WWW - Added new SNMP configuration options

Bugfixes

- GNSS Driver - Fixed segfault while exiting
- GNSS Driver - Fixed constellation setting for Ublox LEA/NEO modules
- GNSS Driver - Fixed excessive logging of satellites amount

- Console setup - Fixed hostname deletion if SNMP was not used
- Fixed MAC address removal (setting to zero) if LAN port disabled
- Fixed DHCP null setting
- Fixed FTP custom port selection
- Fixed SNMP community being only 'Public'
- Fixed binaries access permissions that caused false errors in logs
- Fixed some libraries mismatch

FIRMWARE 201112

New features and improvements

- Console setup - Added cable delay setting
- Console setup - Unified antenna configuration
- SNMP - Moved all traps to single MIB tree
- SNMP - Changed traps meaning to actual state rather than "not sync"
- SNMP - Changed SNMPv1 traps to SNMPv2
- SNMP - Adjusted NTS-MIBv3.txt file for new changes
- SNMP - Fixed trap messages structure
- GNSS Driver - Improved PPS stuck algorithm

FIRMWARE 201008

New features and improvements

- PTP - Added support for M88
- GNSS Driver - Added L2 frequency band receiving
- GNSS Driver - Added survey-in monitoring and position save/restore when finished
- GNSS Driver - Stability improvements
- Console setup - Added GNSS survey-in monitoring data
- Console setup - Added CARP configuration
- Console setup - Added MAC address edition
- Console setup - Added FTP configuration
- SNMP - Added L2 frequency band information and position mode data
- FTP - Added support for FTP
- E-MAIL - Added support for E-mail notifications
- WWW - Added automatic logout after inactivity
- WWW - Added ban option after too many failed connections
- WWW - Added L2 frequency band information for GNSS
- WWW - Added validation of static antenna position
- WWW - Added configuration for notifications via e-mail
- WWW - Added all antenna constellations data to dashboard

- WWW - Added automatic cache removal

Bugfixes

- GNSS Driver - Fixed static position input for Ublox (wrong altitude)
- SNMP - Fixed sending duplicate TRAPs

FIRMWARE 200705

New features and improvements

- PTP - support for PTP HW module for NTS-3000
- GNSS Driver - increased precision of timing mode survey for ublox
- WWW GNSS - Information about Jamming and Spoofing
- WWW - login form always visible

Bugfixes

- GNSS Driver - enabled antenna power for ZED-F9T
- GNSS Driver - rollover solution
- WWW Dashbord LCD - displaying location data
- WWW GNSS - link for google maps

FIRMWARE 200701

New features and improvements

- SNMP 5.9

Bugfixes

- fixed running SNMP services

FIRMWARE 200630

New features and improvements

- console setup - added Galileo info (depends on GNSS module)
- console setup - added anti-jamming & anti-spoofing info (depends on GNSS module)
- improved GNSS cold start
- unblock NTPq query (version on demand)

FIRMWARE 200615

New features and improvements

- console setup - fixed wrong direction for antenna
- fixed generation NMEA code after reconfigure PTP

FIRMWARE 200610

Bugfixes

- fixed constellation settings
- fixed localtime settings

FIRMWARE 200602

Bugfixes

- WWW - fixed save Radius settings
- WWW - fixed save SNMP settings
- WWW - fixed show PTP tab
- WWW - fixed save antenna position

FIRMWARE 200601

New features and improvements

- added support for select constellation and timing mode

FIRMWARE 191205

New features and improvements

- libiconv 1.16
- gettext 0.20.2
- libxml 2.9.10
- monit 5.27.0
- ncurses 6.2
- openssl 1.1.1g

Bugfixes

- fixed problem SSL upload certificates

FIRMWARE 191201

New features and improvements

- ntp - 4.2.8p14
- ptp - 7.2.29

FIRMWARE 191101

New features and improvements

- SNMP added new traps
- PTP HW firmware update 2.9.19

Bugfixes

- fixed problem SSL upload certificates

FIRMWARE 190930

New features and improvements

- added restart services from ssh setup

- security update
- curl-7.68.0
- openssl-1.1.1d
- php-7.2.27

Bugfixes

- fixed problem with hostname ntp
- fixed problem with showing PTP table in Network tab

FIRMWARE 190928

New features and improvements

- security update
- php-7.2.25

FIRMWARE 190926

New features and improvements

- add reboot server from setup ssh

FIRMWARE 190925

New features and improvements

- security update
- php-7.1.33
- openssh-8.1p1

FIRMWARE 190920

New features and improvements

- add support G8275.2

Bugfixes

- fix messages display on WWW LCD

FIRMWARE 190915

New features and improvements

- added advanced configuration for PTP G8275 and C37.238
- OCXO synchronization after HoldOver
- added user profile for login (only WWW)

FIRMWARE 190905

New features and improvements

- improved configuration PTP profile Default, G.8265, add manual config ClockClass

- updated:

curl 7.66.0

lighttpd-1.4.54

openssl-1.0.2t

php-7.1.32

snmp-5.8

FIRMWARE 190715

New features and improvements

- ntp: change to stratum 16 when clock is unsynchronized
- console setup: add counter timeframe and PPS

FIRMWARE 190705

New features and improvements

- Support for SyncE master on PTP cards (only on RJ45)

FIRMWARE 190701

New features and improvements

- Setup www - added backup and restore configuration

FIRMWARE 190625

New features and improvements

- New webpanel

Bugfixes

- fixed “GNSS” LED behavior – it will lights red when both antennas are configured but only one is connected

FIRMWARE 190405

New features and improvements

- Support NTP SHA keys

Bugfixes

- fixed BINR input mode

FIRMWARE 190315

Upgrading to New Software Release

- ntp-4.2.8p13 • monit-5.25.3 • php-5.6.40

New features and improvements

- HP5071 driver

FIRMWARE 190305

Upgrading to New Software Release

- ntp-4.2.8p12
- OpenSSL 1.0.2r
- php-5.6.40
- curl-7.64.0
- lighttpd-1.4.53

FIRMWARE 190105

Upgrading to New Software Release

- Openssl 1.0.2q
- Openssh 7.9p1
- php-5.6.39
- curl-7.63.0
- lighttpd-1.4.52
- monit-5.25.2

New features and improvements

- improve PTP Slave
- added PTP firmware upgrade

FIRMWARE 161128

Bugfixes

- fix GNSS logs in NMEA mode
- fix running GNSS BINR driver after reconfiguring

FIRMWARE 161126

New features and improvements

Calibration & product performance improvements

FIRMWARE 161122

Bugfixes

- upload certificates SSH/SSL
- fix auto-upgrade OCXO firmware (NTS-4000/5000 only)

Upgrading to New Software Release

- ntp-4.2.8p11
- php-5.6.35
- openssl-1.0.2o

Note

After upgrade, you need clear your web browser and next, enable NTP service on LAN1 and LAN2 by SSH-SETUP

FIRMWARE 161120

New features and improvements

- BEIDOU support added

FIRMWARE 161116

New features and improvements

- PTP (software) support added f

or std. LAN1, LAN2

(ITU-T G.8265.1 Telecom profile unicast master)

Upgrading to New Software Release

- Lighttpd-1.4.49

FIRMWARE 161114

New features and improvements

- Web server disabled TLS1.0,1.1
- Automatic upgrade OCXO microcode, during firmware upgrade

Bugfixes

- Setup SSH configuration SNMP service on LAN1 and LAN2
- Setup WWW configuration multicast and broadcast

Note

Note! After upgrade, you need clear your web browser and next, enable NTP service on LAN1 and LAN2 by SSH-SETUP

FIRMWARE 161110

New features and improvements

- Added support of PTP SLAVE

Upgrading to New Software Release

- php-5.6.33
- lighttpd-1.4.48 • openssh-7.6p1
- openssl-1.0.2n • curl-7.58.0
- bash-4.4.18

FIRMWARE 161026

New features and improvements

- Disable Mode 6 queries

FIRMWARE 161024

Upgrading to New Software Release

- ntp-4.2.8p10
- php-5.6.31
- lighttpd-1.4.47 • openssh-7.5p1

Bugfixes

- Improved configuration network settings on PTP cards
- Restart Rubidium from setup WWW

FIRMWARE 161022

Upgrading to New Software Release

- openssl-1.0.2l • openssh-7.5p1 • php-5.6.31

New features

- PTP: support for new module version

FIRMWARE 161020

Bugfixes

- Internal log cleaning

FIRMWARE 161018

Bugfixes

- WWW - Correct message to successful password change

FIRMWARE 161016

Upgrading to New Software Release

- openssl-1.0.2k • php-5.6.30
- lighttpd-1.4.45

New features

- Default setting TIMER OUT to IRIG OUT DC

Bugfixes

- WWW – System Rubidium information, showed always not installed

FIRMWARE 161014

New features

- added support for older IRIG module (based on MB ASCII) NTS-4/5000

Bugfixes

- SNMP Traps sned when antenna change states from failure to not failure

FIRMWARE 161012

Upgrading to New Software Release

- NTS system kernel
- ntp-4.2.8p9
- openssh-7.4p1
- openssl-1.0.2j
- php-5.6.29
- lighttpd-1.4.44

New features and improvements

- added VLAN configuration (ssh)
- added antenna mode selection NMEA or NV08 (GPS+GLANASS)
- improved NMEA output – full antenna simulation
- added info about LCD state (WWW), OCXO, IRIG IN/OUT, Rubidium
- added location in google maps from GNSS (WWW)
- added login status antenna in syslog
- added auto-update leap seconds announce (if server connected to internet)

Bugfixes

- multiple sending SNMP Traps after reboot
- RADIUS Telnet authentication

FIRMWARE < VERSIONS 2000-2015 >

- Have been moved to ELPROMA archive