GE VERNOVA

Firmware Release Notes

UR Family

Version 8.6x

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Table of Contents

1 Summary 5
1.1 Date of firmware release 5
1.2 Highlights of Firmware 8.60 5
1.3 Highlights of firmware 8.61 5
1.4 Highlights of firmware 8.62 6
2 Firmware version 8.60 7
2.1 Bus Differential Systems B30, B90 7
2.1.1 Added new overvoltage protection element in the B90 bus differential system 7
2.1.2 Corrected processing of isolator “Bad Status” state based on IEC 61850 GOOSE DPS inputs in B30 with Process Bus Module 7
2.2 Generator Protection Systems G30, G60 7
2.2.1 Added functionality to protect power transformer along with generator protection in G60 generator protection system 7
2.2.2 Added support for 3 DSP modules in the G60 generator protection system 8
2.2.3 Added support for two winding sources in the split phase protection element in the G30 and G60 generator protection system 8
2.2.4 Added metering actual value for the split phase protection element in the G30 and G60 generator protection system 8
2.3 Line Differential Protection Systems L30, L90 9
2.3.1 Added High speed Falling Conductor Protection (HFCP) protection element in the L90 line protection system 9
2.3.2 Corrected erroneous activation of the STUB BUS OP in breaker-and-a-half bus configuration 9
2.4 Transformer Protection System T60 9
2.4.1 Added functionality to protect two power transformers in the T60 transformer protection system 9
2.5 Common protection and control elements 10
2.5.1 Increased the maximum limit of the pickup setting to 70 Hz for the underfrequency protection element 10
2.5.2 Increased the maximum limit of the pickup setting to 70 Hz for the overfrequency protection element 10
2.5.3 Increased the maximum limit of the Load Encroachment Angle setting to 80° 10
2.5.4 Added capability to map the breakers and disconnect switches status to IEC61850 GOOSE DPS inputs 11
2.5.5 Fixed reset timer functionality of V/Hz element when the input is in the hysteresis region 11
2.5.6 Corrected menu displays for neutral directional overcurrent settings 11
2.6 Platform 11
2.6.1 Added text file that lists the serial numbers of the modules installed in the UR relay 11

2.6.2 Added commands to change the front panel type, add/remove redundant power supply, or to change power supply model in the order code 12
2.6.3 Added FlexAnalogs for the fault values of the user programmable fault report 12
2.6.4 Added support to set the relay's local time only from the IRIG -B signal 12
2.6.5 Enhanced FW to verify the authenticity of the FW binary on a FW upgrade 13
2.6.6 Fixed unexpected restart when attempting to read a PMU record 13
2.6.7 Added Polish language faceplate letter to the list of valid faceplate options 13
2.6.8 Fixed the "FlexAnalog Parameter Listing" webpage 14
2.6.9 Corrected the "Last Settings Change" timestamp to include the DST time 14
2.6.1 Added the Process Bus Module general settings and the AC banks configuration settings to the data recorded in the oscillography settings file 14
2.7 Communications 14
2.7.1 Enhanced the main CPU FW to accept IEC61850 GOOSE messages with invalid/questionable quality 14
2.7.2 Changed FW to correctly use the IEC61850 MaxTime and TAL fields from the incoming CID file 15
2.7.3 Changed behaviour of clearing the "SNTP Failure" self-test 15
2.7.4 Extended range of SNTP time synchronization to year 2104 15
2.7.5 Corrected default state of the remote inputs after a reboot 16
2.7.6 Added option to keep time synchronization in PMU frames for a defined period after the PTP clock loses GPS signal 16
2.7.7 Changed Process Bus Module FW to accept PTP frames with invalid UTC offset 16
2.7.8 Increased the PTP holdover time to 60 sec for the Process Bus Module 16
2.7.9 Corrected "Sync Source" actual value for the Process Bus Module PTP when the PTP function is set to "Slave-Only" and the PTP synchronization state is either "Synchronized" or "Synch'd (No PDelay)" 17
2.7.10 Fixed FW to prevent an unexpected restart when the DNP UDP port number is set to specific values 17
2.7.11 Corrected FW to correctly process fragmented IP frames 17
2.7.12 Changed IEC61850 real time clock logical node TmClkLTMS 18
2.7.13 Corrected functionality of Process Bus Module IEC61850 RxGOOSE NdsCom flag when the RxGOOSE is offline 18
2.7.14 Corrected FW to allow subscription to legacy fixed GOOSE messages from URPlus devices 18
2.8 Cybersecurity 18
2.8.1 Corrected syslog priority for values with two digits to match RFC 5424 18
2.8.2 Added security events in relay with CyberSentry when attempting to change settings from the front panel while "Lock Settings" is enabled 19
3 Firmware version 8.61 20
3.1 Generator Systems G30 20
3.1.1 Removed second source setting "SPLIT PHASE SOURCE2" from the split phase element in the G30 relay 20

3.2 Motor Protection System M60 20
3.2.1 Corrected mis-operation in M60 due to Thermal Capacity Unit calculation 20
3.3 Transformer Protection System T60 20
3.3.1 Corrected translations for the second transformer in T60 relays with additional transformer differential SW option 20
3.4 Platform 21
3.4.1 Enhanced holdover mode for synchrophasors (PMU) frames for time synchronization using PTP Power Profile 21
3.4.2 Enhanced FW to support more than 2 DIO modules in UR relays with process bus modules 21
3.4.3 Added support for 6Y digital I/O module 21
3.5 Communications 22
3.5.1 Corrected legacy fixed GOOSE remote inputs with duplicated configuration 22
3.5.2 Corrected firmware in relays with IEC61850 to prevent an unexpected restart 22
3.5.3 Enhanced FW to allow transmitting the fault location via IEC 60870-5-103 22
3.5.4 Corrected value of the IEC 61850 digital counter timestamp data attribute (DigCntFCNT#.CntVal.frTm) 23
3.5.5 Corrected firmware to prevent “Diagnostic Failure” in L90 with PBM 23
3.5.6 Corrected IEC 61850 AddCause values for breaker and disconnect switch control operations 23
3.5.7 Fixed synchrophasors streaming data when switching source banks 23
3.6 Cybersecurity 24
3.6.1 Removed "Target to Read" messages in relays with CyberSentry and GFP 24
3.6.2 Enhanced firmware to allow RADIUS authentication when logging in from the front panel in relays with CyberSentry 24
3.6.3 Fixed hostname in the syslog in relays with CyberSentry 24
3.6.4 Enhanced the content of the syslog in relays with CyberSentry to include all the details in the security events file 25
4 Firmware version 8.62 26
4.1 Transformer Protection System T60 26
4.1.1 Changed the T60 firmware to allow usage of 5 or 6 CT banks in order codes with the “EY” software option 26
5 Appendix 27
5.1 Change categories 27
5.2 For Further Assistance 27

1 Summary

This document contains the release notes for firmware version 8.60 and 8.61 of the Universal Relay (UR) family of products.

This release note is applicable to the products: B30, B90, C30, C60, C70, C95, D30, D60, F35, F60, G30, G60, L30, L60, L90, M60, N60, T35, T60.

1.1 Date of firmware release

Firmware 8.60: October 8 2024

Firmware 8.61: February 2025

Firmware 8.62: August 2025

Note: Major firmware releases can introduce new protection and control elements that can affect the device's Modbus memory map. Check the summary of released features to find out if it applies to a particular release.

1.2 Highlights of Firmware 8.60

- **NEW** - Added High speed Failing Conductor Protection (HFCP) protection element in L90 line protection system
- **NEW** - Added functionality to protect two power transformers in the T60 transformer protection system
- **NEW** - Added new overvoltage protection element in the B90 bus differential system
- **NEW** - Added functionality to protect power transformer along with generator protection in G60 generator protection system
- **NEW** - Added support for 3 DSP modules in the G60 generator protection system
- **NEW** - Added support for two windings sources in the split phase protection element in the G30 and G60 generator protection systems
- Increased the maximum limit of the pickup setting to 70 Hz for the underfrequency and the overfrequency protection element in all applicable UR relays
- Increased the maximum limit of the Load Encroachment Angle setting to 80°
- Added capability to map the breakers and disconnect switches status to IEC61850 GOOSE DPS inputs
- Enhanced FW to verify the authenticity of the FW binary on a FW upgrade
- Enhanced the main CPU FW to accept IEC61850 GOOSE messages with invalid/questionable quality
- Changed behaviour of clearing the "SNTP Failure" self-test
- Added support to set the relay's local time only from the IRIG -B signal

1.3 Highlights of firmware 8.61

- Enhanced FW to allow transmission of the fault location via IEC 60870-5-103
- Enhanced FW to allow RADIUS authentication when logging in from the front panel in relays with CyberSentry
- Fixed hostname in the syslog in relays with CyberSentry
- Enhanced the content of the syslog in relays with CyberSentry to include all the details in

the security events file.

- Enhanced the holdover mode for synchrophasors for time synchronization using PTP power profile.
- Corrected mis-operation in M60 due to the Thermal Capacity Unit calculation when there is a short interruption in the starting current
- Enhanced FW to support more than 2 DIO modules in UR relays with process bus modules
- Fixed synchrophasors streaming data when switching source banks
- Added support for 6Y digital I/O module

1.4 Highlights of firmware 8.62

- Changed the T60 firmware to allow usage of 5 or 6 CT banks in order codes with the “EY” software option

2 Firmware version 8.60

2.1 Bus Differential Systems B30, B90

2.1.1 Added new overvoltage protection element in the B90 bus differential system

Category: N

Products: B90

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, a new overvoltage protection element was added to the B90 relay

2.1.2 Corrected processing of isolator “Bad Status” state based on IEC 61850 GOOSE DPS inputs in B30 with Process Bus Module

Category: G

Products: B30 with PBM

Impacted firmware: 8.30 to 8.51

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, a B30 relay with Process Bus Module (PBM) did not correctly process the isolator “Bad Status” state based on the IEC61850 GOOSE DPS inputs. In firmware version 8.60, this issue is fixed

2.2 Generator Protection Systems G30, G60

2.2.1 Added functionality to protect power transformer along with generator protection in G60 generator protection system

Category: N

Products: G60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the G60 relays provide a transformer protection in addition to generator protection, such as both the generator and the step-up transformer can be protected by separate set of protection elements for transformer and generator, including two differential protection elements in a single G60 relay. This feature is enabled by the “additional transformer differential” software option.

2.2.2 Added support for 3 DSP modules in the G60 generator protection system

Category: N

Products: G60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the G60 relay supported up to two DSP modules. In firmware version 8.60, the G60 relay supports up to three DSP modules.

2.2.3 Added support for two winding sources in the split phase protection element in the G30 and G60 generator protection system

Category: E

Products: G30, G60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the G30 and G60 relays allow for split phase protection with an option of using two individual generator split winding CTs, where the existing current input method of using either external sum or toroidal CTs will be maintained for backward compatibility.

2.2.4 Added metering actual value for the split phase protection element in the G30 and G60 generator protection system

Category: E

Products: G30, G60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the split phase element in G30 and G60 supports metering actual values for the 3 phases of the split phase current and for the load current.

2.3 Line Differential Protection Systems L30, L90

2.3.1 Added High speed Falling Conductor Protection (HFCP) protection element in the L90 line protection system

Category: N

Products: L90

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: Description: In firmware version 8.60, a high-speed falling conductor protection (HFCP) element has been added to the L90 relays. This feature uses line series impedance change measurements to detect broken conductor conditions and trip the line before conductor touches the ground to mitigiate potential risk of high-energy arcing.

2.3.2 Corrected erroneous activation of the STUB BUS OP in breaker-and-a-half bus configuration

Category: F

Products: L30, L90

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, under rare intermittent assertion of contact input controlling activation of the stub bus conditions an erroneous stub bus operation may be activated resulting in an undesired 87L DIFF OP activation. In firmware version 8.60, this issue is fixed.

2.4 Transformer Protection System T60

2.4.1 Added functionality to protect two power transformers in the T60 transformer protection system

Category: N

Products: T60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the T60 relays offer two sets of power transformer protection, including two independent transformer differential elements when the order code includes the “additional transformer differential” software option. This allows a single T60 device to provide transformer differential protection for two power transformers in a large protection and control scheme. When the additional transformer differential SW option is present the number of protection elements is increased as follows:

- The number of Transformer setup is increased from 1 to 2.
- The number of perecent and instantaneous differential elements is increased from 1 to 2.
- The number of transformer thermal elements is increased from 1 to 2.
- The number of inter-turn protection elements is increased from 1 to 2
- The number of Volts/Hz elements is increased from 2 to 4.
- The number of thermal overload elements is increased from 4 to 6.
- The number of through fault monitoring elements is increased from 3 to 6

2.5 Common protection and control elements

2.5.1 Increased the maximum limit of the pickup setting to 70 Hz for the underfrequency protection element

Category: E

Products: B30, D30, D60, F35, F60, G30, G60, L30, L90, M60, N60, T35, T60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the upper limit of the underfrequency element was increased from 50 Hz to 70 Hz.

2.5.2 Increased the maximum limit of the pickup setting to 70 Hz for the overfrequency protection element

Category: E

Products: C60, C95, D60, F60, G30, G60, L90, M60, N60, T60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the upper limit of the overfrequency element was increased from 50 Hz to 70 Hz.

2.5.3 Increased the maximum limit of the Load Encroachment Angle setting to 80°

Category: E

Products: D30, D60, F60, L60, L90, T60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the setting range for the “Load Encroachment Angle” setting is expanded to 5° to 80º.

2.5.4 Added capability to map the breakers and disconnect switches status to IEC61850 GOOSE DPS inputs

Category: E

Products: B30 with PBM

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the subscribed RxGOOSE DPS inputs can be directly mapped to the breaker control and the disconnect switch elements.

2.5.5 Fixed reset timer functionality of V/Hz element when the input is in the hysteresis region

Category: P

Products: G30, G60, L90, T60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, after the V/Hz element drops out, the reset timer is frozen if the input signal increases to above the hysteresis limit (2% of the pickup value) but remains below the pickup value. In firmware version 8.60, this issue is fixed.

2.5.6 Corrected menu displays for neutral directional overcurrent settings

Category: D

Products: B30, C70, D30, D60, F60, G30, G60, L30, L60, L90, M60, N60, T60

Impacted firmware: 7.90 to 8.51

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the relay's LCD include two sets of displays for the neutral directional overcurrent element. In firmware version 8.60, this issue is fixed.

2.6 Platform

2.6.1 Added text file that lists the serial numbers of the modules installed in the UR relay

Category: N

Products: All

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the file “ModuleSerialNumbers.txt” is listing the serial numbers of the modules installed in the relay with the exception of the power supply modules. EnerVista UR Setup retrieves this file as part of the service report.

2.6.2 Added commands to change the front panel type, add/remove redundant power supply, or to change power supply model in the order code

Category: N

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, commands have been added to change the front panel letter or the power supply letter in the relay’s order code and to add or remove a redundant power supply to the relay’s order code.

2.6.3 Added FlexAnalogs for the fault values of the user programmable fault report

Category: E

Products: B30, B90, C70, G30, G60, M60, N60, T35, T60

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, two sets of 32 FlexAnalogs have been added for the fault values (one for each of the two user programmable fault reports). The FlexAnalogs can be read over Modbus, DNP, IEC104, and over IEC61850 (Logical nodes UFlt1RFLOxx.FltAn$\beta\beta$, where xx are the fault report number and $\beta\beta$ are the two digit FlexAnalog number 01 to 32), and they can be used in the GFP annunciator.

2.6.4 Added support to set the relay’s local time only from the IRIG -B signal

Category: E

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the relay can set the local time based only on the IRIG-B signal that includes the Control Function (CF) bits according to IEEE Standard 1344-1995. A new setting “UTC OFFSET” has been added for IRIG-B. When set to “IRIG-B Time” it allows the user to derive the UTC time, Local time, and DST from the IRIG-B CF bits , avoiding the need for the relay’s “LOCAL TIME” settings.
When set to “LOCAL TIME SETTINGS” the relay’s behaviour matches that in previous FW versions. This option is the default value for the new setting, for backwards compatibility with earlier versions of UR.

2.6.5 Enhanced FW to verify the authenticity of the FW binary on a FW upgrade

Category: E

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, in additional to the verification in EnerVista UR Setup, during a FW upgrade the relay verifies the FW binary’s authenticity by verifying the signature embedded in the binary.

2.6.6 Fixed unexpected restart when attempting to read a PMU record

Category: B

Products: All products

Impacted firmware: 8.50

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 850, the relay experienced an unexpected restart when the user attempted to read a PMU record. In firmware version 8.60, this issue is fixed.

2.6.7 Added Polish language faceplate letter to the list of valid faceplate options

Category: D

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, when the “Update order code” command is executed for a relay with support for Polish language (front panel letter ‘H’ or ‘O’) the relays changed the front panel letter to English. In firmware version 8.60, this issue is fixed.

2.6.8 Fixed the “FlexAnalog Parameter Listing” webpage

Category: R

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the “FlexAnalog Parameter Listing” webpage was fixed to always show all the available FlexAnalogs in the relay.

2.6.9 Corrected the “Last Settings Change” timestamp to include the DST time

Category: R

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the “Last Settings Change” timestamp did not include the Daylight Saving Time (DST) time. In firmware version 8.60, this issue is fixed.

2.6.1 Added the Process Bus Module general settings and the AC banks configuration settings to the data recorded in the oscillography settings file

Category: R

Products: All products with PBM

Impacted firmware: 8.50 to 8.51

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the Process Bus Module (PBM) general settings and the AC banks configuration settings were missing from the settings file recorded when an oscillography is triggered. In firmware version 8.60, this issue is fixed.

2.7 Communications

2.7.1 Enhanced the main CPU FW to accept IEC61850 GOOSE messages with invalid/questionable quality

Category: E, C

Products: All products with IEC61850

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, a new setting “RxGOOSE Quality Check” allows configuring the relay to accept or reject GOOSE messages with invalid/questionable quality. When the option ‘Accept Invalid or Questionable q’ is selected, the RxGOOSE inputs with invalid or questionable quality are accepted and processed. For backwards compatibility with earlier versions the default options it to reject GOOSE messages with invalid/questionable quality. This feature is not available for relays with Process Bus Module (PBM).

2.7.2 Changed FW to correctly use the IEC61850 MaxTime and TAL fields from the incoming CID file

Category: C

Products: All products with IEC61850

Impacted firmware: 7.00 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, EnerVista UR Setup is correctly populating the MaxTime and TAL fields in the CID file and the FW supports this change.

2.7.3 Changed behaviour of clearing the “SNTP Failure” self-test

Category: C

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, in SNTP unicast mode the “SNTP Failure” self-test is cleared only after the relay’s time is synchronized to the SNTP server. This will take an additional 200 sec compared to earlier versions.

2.7.4 Extended range of SNTP time synchronization to year 2104

Category: C

Products: All products

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the relay synchronizes correctly to an SNTP server up to year 2104.

2.7.5 Corrected default state of the remote inputs after a reboot

Category: C

Products: All products with IEC61850

Impacted firmware: 8.30 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the relay did not correctly apply the default state of the remote inputs when they were defined as “ON”. In firmware version 8.60, this issue is fixed.

2.7.6 Added option to keep time synchronization in PMU frames for a defined period after the PTP clock loses GPS signal

Category: E, C

Products: All products with PMU

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, a “HOLDOVER MODE” is added to delay by a configurable period when the relay sets the PMU Sync Error flag after the PTP clock loses the GPS signal. By default, the holdover mode is turned off for backwards compatibility with earlier versions.

2.7.7 Changed Process Bus Module FW to accept PTP frames with invalid UTC offset

Category: C

Products: All products with PBM

Impacted firmware: 7.80 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the relay accepts an announce message with the invalid UTC Offset and the flag ptpTimescale set to false.

2.7.8 Increased the PTP holdover time to 60 sec for the Process Bus Module

Category: C

Products: All products with PBM

Impacted firmware: 7.80 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the PBM PTP has a holdover time of 60 seconds, which matches that of the main CPU PTP.

2.7.9 Corrected “Sync Source” actual value for the Process Bus Module PTP when the PTP function is set to “Slave-Only” and the PTP synchronization state is either “Synchronized” or “Synch'd (No PDelay)”

Category: C

Products: All products with PBM

Impacted firmware: 7.80 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, if the Process Bus Module PBM PTP Function setting is configured to “Slave-only” the “Sync Source” is incorrect when the PTP state is either “Synchronized” or “Synch’d (No PDelay)”. In firmware version 8.60, this issue is fixed

2.7.10 Fixed FW to prevent an unexpected restart when the DNP UDP port number is set to specific values

Category: C

Products: All products with CyberSentry or IEC61850

Impacted firmware: 7.40 onwards

Corrected firmware: 8.60

Workaround: Configure the DNP UDP port number to a different value.

Description: In firmware version 8.60, the FW prevents the user from the setting the following DNP port numbers for the “NETWORK – UDP” channel: These port numbers are used internally by the device.

- Order codes with IEC61850 SW option: DNP UDP port numbers 20028 and 20029.
- Order codes with CyberSentry SW option: DNP UDP port numbers 20020, 20021, 20028, 20029.

2.7.11 Corrected FW to correctly process fragmented IP frames

Category: C

Products: All products

Impacted firmware: 7.00 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the relay may incorrectly discard fragmented IP frames. In firmware version 8.60, this issue is fixed.

2.7.12 Changed IEC61850 real time clock logical node TmClkLTMS

Category: C

Products: All products with IEC61850

Impacted firmware: 7.00 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the real time clock logical node was changed and a new data object output TmClkLTMS1.TmSrcTyp was added to indicate the time source used for time synchronization by the relay.

2.7.13 Corrected functionality of Process Bus Module IEC61850 RxGOOSE NdsCom flag when the RxGOOSE is offline

Category: C

Products: All products with PBM

Impacted firmware: 8.50 to 8.51

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the Process Bus Module (PBM) IEC61850 RxGOOSE NdsCom flag was activated despite the RxGOOSE being offline. The issue does not exist for the main CPU RxGOOSE. In firmware version 8.60, this issue is fixed.

2.7.14 Corrected FW to allow subscription to legacy fixed GOOSE messages from URPlus devices

Category: C

Products: All products

Impacted firmware: 8.40 to 8.51

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, the subscription to legacy fixed GOOSE messages from URPlus devices did not work. In firmware version 8.60, this issue is fixed, and UR relay can subscribe to legacy fixed GOOSE messages from URPlus relays.

2.8 Cybersecurity

2.8.1 Corrected syslog priority for values with two digits to match RFC 5424

Category: C

Products: All products

Impacted firmware: 7.70 onwards

Corrected firmware: 8.60

Workaround: N/A

Description: In previous versions, if the syslog priority value had only two digits the relay is adding a leading 0 to the priority value. For example, instead of the correct value <38> the relay is using the value <038>. In firmware version 8.60, this issue is fixed, and the priority value matches the requirement of RFC 5424.

2.8.2 Added security events in relay with CyberSentry when attempting to change settings from the front panel while “Lock Settings” is enabled

Category: R

Products: All products with CyberSentry

Impacted firmware: All

Corrected firmware: 8.60

Workaround: N/A

Description: In firmware version 8.60, the relay does generate security events for both local and remote attempts to change the settings while “Lock Settings” is enabled.

3 Firmware version 8.61

3.1 Generator Systems G30

3.1.1 Removed second source setting “SPLIT PHASE SOURCE2” from the split phase element in the G30 relay

Category: D

Products: G30

Impacted firmware: 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In firmware version 8.60, a second source setting ***SPLIT PHASE SOURCE2*** was added to the split phase element for the G60. This setting was mistakenly shown in the G30 relay. In firmware version 8.61, the second source setting ***SPLIT PHASE SOURCE2*** setting was removed from the G30 split phase element.

3.2 Motor Protection System M60

3.2.1 Corrected mis-operation in M60 due to Thermal Capacity Unit calculation

Category: D

Products: M60

Impacted firmware: All versions up to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In all previous firmware versions, a short interruption in the starting current causes the Thermal Capacity Unit (TCU) to jump suddenly from 8% to 100%. This causes incorrect activation of the Motor Thermal OP. In firmware version 8.61, this issue is fixed.

3.3 Transformer Protection System T60

3.3.1 Corrected translations for the second transformer in T60 relays with additional transformer differential SW option

Category: D

Products: T60 with additional transformer differential protection element

Impacted firmware: 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In firmware version 8.60, some of the translations of the menus for the second transformer

menus were incorrect. In version 8.61, the translations of the menus for the second transformer have been corrected.

3.4 Platform

3.4.1 Enhanced holdover mode for synchrophasors (PMU) frames for time synchronization using PTP Power Profile

Category: C

Products: All products with PMU functionality

Impacted firmware: 8.60

Corrected firmware: 8.61

Workaround: Avoid configuring multiple legacy fixed GOOSE remote inputs with exactly the same configuration

Description: In v860, a holdover mode was introduced to allow the relay to delay the setting of the PMU Sync Error flag in the synchrophasor frames. This mode does not work correctly if the PTP clock uses Power Profile. In firmware version 8.61, the holdover mode for PMU frames was enhanced to work correctly also when the PTP clock uses Power Profile.

3.4.2 Enhanced FW to support more than 2 DIO modules in UR relays with process bus modules

Category: E

Products: All products with Hardfiber or Process Bus

Impacted firmware: 5.60 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, UR relays with HardFiber process card (81) or process bus module (85/86/87) allow a maximum of two digital IO modules to be installed. If an order code includes 3 DIO modules, the FW asserts the “Equipment Mismatch” self-test, which takes the relay out of service. In firmware version 8.61, this limitation was removed, and 3 DIO modules can be used.

3.4.3 Added support for 6Y digital I/O module

Category: N

Products: All products

Impacted firmware: All

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, the firmware did not support the 6Y module. In firmware version 8.61, support for a new 6Y digital I/O module was added. The new 6Y module includes 11 contact outputs and 12 contact inputs. Two of its contact inputs, 9 and 11, can be used for station battery DC voltage monitoring.

3.5 Communications

3.5.1 Corrected legacy fixed GOOSE remote inputs with duplicated configuration

Category: C

Products: All products with IEC61850 using legacy fixed GOOSE

Impacted firmware: 8.40 to 8.60

Corrected firmware: 8.61

Workaround: Avoid configuring multiple legacy fixed GOOSE remote inputs with exactly the same configuration

Description: In previous versions, if several legacy fixed GOOSE remote inputs are configured identically, only the last remote input with the same configuration works correctly. In firmware version 8.61, this issue is fixed.

3.5.2 Corrected firmware in relays with IEC61850 to prevent an unexpected restart

Category: B, C

Products: All products with IEC61850.

Impacted firmware: 8.30 to 8.60

Corrected firmware: 8.61

Workaround: Before reading a file via MMS, first read the contents of the directory

Description: In previous versions, if an attempt is made to read a file, like a COMTRADE oscillography file, via MMS without first reading the contents of the directory the relay experiences an unexpected restart.

3.5.3 Enhanced FW to allow transmitting the fault location via IEC 60870-5-103

Category: E, C

Products: All products with IEC 60870-5-103 SE.

Impacted firmware: All versions up to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, the firmware does not allow transmission of the fault location using the IEC 60870-5-103 protocol. In firmware version 8.61, the fault location (in km or miles) can be transmitted.

3.5.4 Corrected value of the IEC 61850 digital counter timestamp data attribute (DigCntFCNT#.CntVal.frTm)

Category: C

Products: B30, C30, C60, C70, C95, D30, D60, F35, F60, G30, G60, L30, L60, L90, M60, N60, T35, T60.

Impacted firmware: 8.30 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, the value of IEC 61850 digital counter timestamp data attribute `DigCntFCNT#.CntVal.frTm` was incorrect. In firmware version 8.61, this issue is fixed.

3.5.5 Corrected firmware to prevent “Diagnostic Failure” in L90 with PBM

Category: U

Products: L90 with Process Bus Module (85, 86, 87)

Impacted firmware: 7.90 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, if an L90 relay with PBM is rebooted while all the merging units are turned off, the relay will assert a Diagnostic Failure error. In firmware version 8.61, this issue is fixed.

3.5.6 Corrected IEC 61850 AddCause values for breaker and disconnect switch control operations

Category: C

Products: All products with IEC 61850 and graphical front panel (GFP)

Impacted firmware: 8.30 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: The UR implements an extension to the IEC 61850 server to provide control services, which allow IEC 61850 clients to Add and Remove Breaker / Disconnect Switch tags on relays with GFP. In previous versions, some of the error code values provided by this functionality of breaker/ switch tagging were incorrect. In firmware version 8.61, these issues are fixed.

3.5.7 Fixed synchrophasors streaming data when switching source banks

Category: C

Products: All products with PMU

Impacted firmware: 7.90 to 8.24 plus 8.42 and higher

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, in products with at least 2 PMUs, if one of the banks is switched in a source used by the second or higher PMU, the data in the synchrophasor stream is frozen, including the timestamp. In firmware version 8.61, this issue is fixed.

3.6 Cybersecurity

3.6.1 Removed "Target to Read" messages in relays with CyberSentry and GFP

Category: D

Products: All products with Cybersentry and GFP

Impacted firmware: 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In firmware versions 8.60, in relays with CyberSentry SW option and with a GFP, if there is a DIO module installed and a target message is present, the syslog is flooded by “Target to Read” messages”. In firmware version 8.61, this issue is fixed.

3.6.2 Enhanced firmware to allow RADIUS authentication when logging in from the front panel in relays with CyberSentry

Category: G

Products: All products with Cybersentry

Impacted firmware: 7.00 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, in relays with CyberSentry SW option, when the ***Device Authentication*** setting is set to *No*, the relay uses local authentication when a user logs in from the front panel. In firmware version 8.61, if the setting ***Device Authentication*** is set to *No*, the relay will use RADIUS authentication when logging in from the front panel.

3.6.3 Fixed hostname in the syslog in relays with CyberSentry

Category: C

Products: All products with Cybersentry

Impacted firmware: 7.00 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, the **hostname** field in the syslog in relays with CyberSentry is always

UR7 for all the relays. In firmware version 8.61, the hostname in the syslog is the IP address of the port that sends out the syslog.

3.6.4 Enhanced the content of the syslog in relays with CyberSentry to include all the details in the security events file

Category: C

Products: All products with Cybersentry

Impacted firmware: 8.40 to 8.60

Corrected firmware: 8.61

Workaround: N/A

Description: In previous versions, in relays with CyberSentry, the syslog did not include all the details present in the security events file `security_events.csv`. In firmware version 8.61, the syslog includes all the details of the security events file.

4 Firmware version 8.62

4.1 Transformer Protection System T60

4.1.1 Changed the T60 firmware to allow usage of 5 or 6 CT banks in order codes with the “EY” software option

Category: G

Products: T60

Impacted firmware: All versions

Corrected firmware: 8.62

Workaround: N/A

Description: In previous versions, a T60 relay with the “EY” software option and 5 or 6 CT banks asserts an Equipment Mismatch condition. In firmware version 8.62, a T60 relay with “EY” software options allows the use of 5 or 6 CT banks.

5 Appendix

5.1 Change categories

This document uses the following categories to classify the changes.

Code	Category	Comments
N	New feature	A separate feature added to the relay.
G	Change	A neutral change that does not bring any new value and is not correcting any known problem
E	Enhancement	Modification of an existing feature bringing extra value to the application
D	Changed, incomplete or false faceplate indications	Changes to, or problems with text messages, LEDs and user pushbuttons
R	Changed, incomplete or false relay records	Changes to, or problems with relay records (oscillography, demand, fault reports, etc.)
C	Protocols and communications	Changes to, or problems with protocols or communication features
M	Metering	Metering out of specification or other metering problems
P	Protection out of specification	Protection operates correctly but does not meet published specifications
U	Unavailability of protection	Protection not available in a self-demonstrating way so that corrective actions should be taken immediately
H	Hidden failure to trip	Protection may not operate when it should
F	False trip	Protection may operate when it should not
B	Unexpected restart	Relay restarts unexpectedly

5.2 For Further Assistance

For product support, contact the information and call center as follows:

GE Vernova
650 Markland Street
Markham, Ontario
Canada L6C 0M1
Worldwide telephone: +1 905 927 7070
Europe/Middle East/Africa telephone: +34 94 485 88 54
North America toll-free: 1 800 547 8629
Fax: +1 905 927 5098
Worldwide e-mail: GA.support@gevernova.com
Website: https://www.gevernova.com/grid-solutions/multilin/