



ICX35-HWC
Industrial Cellular Gateway
3G/4G LTE

July 6, 2022

Your Feedback Please

We always want you to feel that you made the right decision to use our products. If you have suggestions, comments, compliments or complaints about our products, documentation, or support, please write or call us.

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ICX35-HWC Release Notes

For public use.

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Printed documentation is available for purchase. Contact ProSoft Technology for pricing and availability.

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1 Start Here

This document highlights the new features, fixes, enhancements and known issues for the ICX35-HWC radios.

1.1 About the ICX35-HWC Products

Model	Standards	LTE Bands
ICX35-HWC-A	FCC	2, 4, 5, 13, 17, 25
ICX35-HWC-E	ETSI	1, 3, 7, 8, 20

The ICX35-HWC Industrial Cellular Gateway provides secure wireless Ethernet and serial connectivity to remote devices over 4G LTE cellular service with fallback to 3G. These devices include PAC/PLCs, RTUs, DCS systems, instruments, electronic billboards and communication towers. Remote devices can be accessed using secure VPN tunnels over Internet connections.

The ICX35-HWC is ideal for programming and maintenance of remote equipment, remote data collection, SCADA, and machine-to-machine (M2M) applications.

1.2 Release Enhancements

Release Version	Release Date	Description
1.13.001	5-Jul-2022	<p>New Features: Added support for Proxy ARP. This feature allows users to connect end devices that are in different locations but in the same subnet using a layer 3 tunnel. When configured, the gateway is able to reply to the ARP request in its LAN and then forward the packets according to its routing table.</p> <p>Fixes & Changes:</p> <ul style="list-style-type: none"> Fixed – Users are no longer required to use port 8080 when accessing the local UI. Change – ProSoft Connect™ is now called Belden Horizon™. Please go to www.prosoft-technology.com for more information. <p>Known Issues:</p> <ul style="list-style-type: none"> Status page: Serial Sent Encapsulated Messages and Bytes do not change from 0 in UDP mode. Any Settings changes may stop Serial communication and requires re-enabling the protocol. Remote packet capture will not work during firmware upgrade. When IPsec is in use and the tunnel becomes disabled at one end, IPsec traffic should be stopped for 20 seconds before re-enabling the tunnel. To create a new IPsec tunnel, IPsec should be reconfigured on both ICX35-HWC endpoints. If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. ICX35-HWC firmware can be updated via Belden Horizon or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via Belden Horizon. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> The ICX35-HWC must be disconnected from the tunnel. If the ICX35-HWC is part of a PDN project in Belden Horizon, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.12.97	4-Feb-2022	<p>New Features</p> <ul style="list-style-type: none"> Packet capture file name includes timestamp of when the file was created on the gateway. Displays available memory as part of device diagnostics. <p>Fixes & Changes</p> <ul style="list-style-type: none"> Fixed - The SMS center number is limited to a maximum count of 15 numeric characters (0 to 9). Fixed - In LAN settings, DNS configurations accept the Broadcast IP. Fixed - Cellular interface shows 'Connecting' even though the interface is disabled. Fixed - ICX35-HWC was not being recognized in RSLinx. Fixed - The "Application" name under <i>Configuration > Firewall > Port Forwarding</i> will not support alpha-numeric characters. Fixed - In <i>Configuration > Advanced > Serial / Encapsulation > Encapsulation Table</i>, the serial address entry will be validated to ensure it is in the range 0-254. Fixed - In <i>Administrator > SMS > Received SMS</i>, each of the received messages begins on a new line. Fixed - When gateway firmware is being updated, user status messages have been clarified.

		<ul style="list-style-type: none"> • Fixed - Cellular data usage did not display measurement units. • Fixed – ProSoft Connect Activation Key will expire and will not be displayed if device is no longer connected to internet. • Fixed - Web UI now accepts (.) as a valid character in Module name. <p>Known Issues</p> <ul style="list-style-type: none"> • Status page: Serial Sent Encapsulated Messages and Bytes do not change from 0 in UDP mode. • Any Settings changes may stop Serial communication and requires re-enabling the protocol. • Remote packet capture will not work during firmware upgrade. • When IPsec is in use and the tunnel becomes disabled at one end, IPsec traffic should be stopped for 20 seconds before re-enabling the tunnel. To create a new IPsec tunnel, IPsec should be reconfigured on both ICX35-HWC endpoints. • If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. • ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via ProSoft Connect. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> ○ The ICX35-HWC must be disconnected from the tunnel. ○ If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.11.8	29-Jul-2021	<p>New Features</p> <ul style="list-style-type: none"> • Improved login security via local UI by restricting the number of incorrect login attempts. The incorrect attempts are logged in <i>syslog</i> and <i>/psft/loginRecords.txt</i> • Remote packet capture option is enabled from PSC. Users can capture the tcpdump on LAN or WAN interface for a specified duration. Captured files is stored in ProSoft Connect. <p>Fixes & Changes</p> <ul style="list-style-type: none"> • Fixed - EIP Driver fault due to low RSSI strength. • Fixed - Sometimes, linktime appears to be greater than uptime. • Fixed - Multiple calls to processMonitor.sh causes the ICX35-HWC to halt for a period of time. (Mainly due to WAN/LAN) • Fixed - PSC gets randomly disconnected from ICX35-HWC • Fixed - Modbus RTU Communication breaks after reboot. <p>Known Issues</p> <ul style="list-style-type: none"> • Status page: Serial Sent Encapsulated Messages and Bytes do not change from 0 in UDP mode. • Any Settings changes may stop Serial communication and requires re-enabling the protocol. • Remote packet capture will not work during firmware upgrade. • When IPsec is in use and the tunnel becomes disabled at one end, IPsec traffic should be stopped for 20 seconds before re-enabling the tunnel. To create a new IPsec tunnel, IPsec should be reconfigured on both ICX35-HWC endpoints. • If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. • ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended to update the ICX35-HWC firmware via ProSoft Connect. If the firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> ○ The ICX35-HWC must be disconnected from the tunnel.

		<ul style="list-style-type: none"> ○ If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.10.30	2-Nov-2020	<p>New Features</p> <ul style="list-style-type: none"> • None <p>Fixes & Changes</p> <ul style="list-style-type: none"> • Fixed - User Interface issues. <ul style="list-style-type: none"> ○ Gray out the Activate/Deactivate button until operation completes. ○ No countdown when gateway is reset to default. ○ Default timeout bit is not getting updated correctly for serial encapsulation. • Fixed - ICS-VU-926944 UI Security vulnerability. <ul style="list-style-type: none"> ○ User must change default password on first login. When the user accesses the local UI to change gateway configuration, the user can change password again. There is no status check of the previous password. This has been resolved. • Fixed - EIP Driver Hang Issue. • Fixed - Disabling WAN access from ProSoft Connect, disable LAN access to webpage. • Fixed - When using IPSec with Verizon public static WAN IP to connect to gateway, the cellular interface frequently disconnected. • NTP Service upgraded as part of continuous improvement process. <p>Known Issues</p> <ul style="list-style-type: none"> • When IPSec is in use and the tunnel becomes disabled at one end, IPSec traffic should be stopped for 20 seconds before re-enabling the tunnel. To create a new IPSec tunnel, IPSec should be reconfigured on both ICX35-HWC endpoints. • If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. • ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via ProSoft Connect. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> ○ The ICX35-HWC must be disconnected from the tunnel. ○ If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.9.62	22-May-2020	<p>New Features</p> <ul style="list-style-type: none"> • None <p>Fixes & Changes</p> <ul style="list-style-type: none"> • A modem reset may result in the inability to connect to the cellular network. <p>Known Issues</p> <ul style="list-style-type: none"> • If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. • ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via ProSoft Connect. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> ○ The ICX35-HWC must be disconnected from the tunnel. ○ If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.9.61	16-Mar-2020	<p>New Features</p> <ul style="list-style-type: none"> • Connection Recovery mechanism added • Password change at first login

		<ul style="list-style-type: none"> License page added on Administration local UI <p>Fixes & Changes</p> <ul style="list-style-type: none"> Security fixes and improvements Other bug fixes and small changes <p>Known Issues</p> <ul style="list-style-type: none"> If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via ProSoft Connect. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> The ICX35-HWC must be disconnected from the tunnel. If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.8.30	11-Oct-2019	<p>New Features</p> <ul style="list-style-type: none"> OpenVPN improvements: Added support for two simultaneous connections. <p>Fixes & Changes</p> <ul style="list-style-type: none"> Security fixes and improvements Other bug fixes and small changes <p>Known Issues</p> <ul style="list-style-type: none"> If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via ProSoft Connect. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> The ICX35-HWC must be disconnected from the tunnel. If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.7.30	17-Jul-2019	<p>New Features</p> <ul style="list-style-type: none"> SMS improvements: added sent message list to the Local UI. Added support for OpenVPN user/password authentication. <p>Fixes & Changes</p> <ul style="list-style-type: none"> None <p>Known Issues</p> <ul style="list-style-type: none"> If the ICX35-HWC is being used in an OpenVPN setup, it will reboot if an unrecoverable error is detected. ICX35-HWC firmware can be updated via ProSoft Connect or via the local User Interface (UI). It is recommended that ICX35-HWC firmware be updated via ProSoft Connect. If firmware needs to be updated via the UI, then: <ul style="list-style-type: none"> The ICX35-HWC must be disconnected from the tunnel. If the ICX35-HWC is part of a PDN project in ProSoft Connect, then the ICX35-HWC needs to be moved to a standard project prior to the firmware upgrade.
1.6.20	3-May-2019	<p>New Features</p> <ul style="list-style-type: none"> None <p>Fixes & Changes</p> <ul style="list-style-type: none"> SMS: <i>Message Center</i> configurable from UI. Added additional method of time sync when NTP is unavailable.

		<ul style="list-style-type: none"> • <i>Serial Encapsulation</i> setting available with OpenVPN enabled. • Cellular interface works with PIN saved. • When enabling or disabling the Cellular Interface, the ICX35-HWC will reboot. <p>Known Issues</p> <ul style="list-style-type: none"> • None
1.5.65	19-Feb-2019	<p>New Features</p> <ul style="list-style-type: none"> • Support for retrieving the logs from ProSoft Connect. • Support for remote shell for the Support Team. <p>Fixes & Changes</p> <ul style="list-style-type: none"> • User Sessions are extended based on last activity. • Support for remote shell for the Support Team. • Allowing for a 5 character user name. • User Interface fixes. • Fixed a bug related to factory reset using the jumper. <p>Known Issues</p> <ul style="list-style-type: none"> • When the Cellular Interface is toggled from <i>Disabled</i> to <i>Enabled</i>, the LAN interface is automatically set to <i>Static</i>.
1.4.110	14-Dec-2018	<p>New Features</p> <ul style="list-style-type: none"> • Fixed issue with using User Name and Password for WAN connection. • DNS request will be resolved correctly when ICX35-HWC is used to provide Internet Access. • Redesigned the <i>Internet Access through LAN</i> feature. It is now configured through the <i>Cellular Interface</i> toggle. <p>Known Issues</p> <ul style="list-style-type: none"> • When the <i>Cellular Interface</i> is toggled from Disabled to Enabled, the LAN interface is automatically set as static no matter its previous configuration.
1.4.90	29-Oct-2018	<p>New Features</p> <ul style="list-style-type: none"> • Fixed memory usage issue affecting connectivity with ProSoft Connect. • Added support for "@" character in SMS messages. <p>Known Issues</p> <ul style="list-style-type: none"> • Serial encapsulation port modes RS-485 and RS-422 are not supported. • ICX35-HWC only sends Modbus SMS messages to the odd-numbered phone numbers in the list.
1.4.78	19-Jun-2018	<p>New Features</p> <ul style="list-style-type: none"> • Serial encapsulation port modes RS-485 and RS-422 are not supported. • Added Modbus TCP/IP support for diagnostics and SMS send/receive. • Added SMS send/receive feature from Local UI. • Additional EtherNet/IP object functions added: reboot, clear SMS messages. • Unit no longer reboots when changing configuration parameters in Local UI. • Access to ProSoft Connect on LAN. • Security updates • Status screen improvements. • Logging system improvements. • Editing the IP address is now allowed even if <i>Port Forwarding</i> and <i>Pass Through</i> are enabled. Changing the LAN IP Address will remove invalid <i>Port Forwarding</i> entries.

		<ul style="list-style-type: none"> Supports only GSM Basic Character Set. Character Set Extension set is not supported when sending SMS message.
1.3.5	7-Dec-2017	<ul style="list-style-type: none"> Fixed an issue with resolving DNS request.
1.3.4	31-Oct-2017	<ul style="list-style-type: none"> Fixed issue with Port Forwarding not working in case IP Pass-Through is disabled. Fixed issue with IP Pass-Through being enabled when it is configured to be disabled. Fixed issue with SIM Automatic Unlock not being persisted through power cycle. <p>Known Issues</p> <ul style="list-style-type: none"> AT&T 3G-only connections may occasionally reset. On AT&T, only rapid SMS messages received may temporarily disconnect radio.
1.3.3	11-Sep-2017	<ul style="list-style-type: none"> Addressed security vulnerabilities. Added ability to disable Host IP pass-through feature. Fixed issue with DF1 serial port communications experiencing periodic serial port disconnects. Fixed an issue with OpenVPN tunneling. Fixed an issue with multi-line SMS messages causing network disconnection. Improved port forwarding configuration. <p>Known Issues</p> <ul style="list-style-type: none"> AT&T 3G only - connections may occasionally reset AT&T only - rapid SMS messages received may temporarily disconnect radio
1.3.2	15-Jun-2017	<ul style="list-style-type: none"> Addressed security vulnerabilities. Fixed IPSec connectivity issue. Fixed IMEI display inconsistency. Fixed DHCP renewal issues for certain cellular network connections.
1.3	20-Mar-2017	<ul style="list-style-type: none"> Verizon Support Users will be able to use the ICX35-HWC with Verizon SIM card. SIM PIN Entry Some cellular services, such as prepaid data services, require a Personal Identification Number to activate the SIM card. Users will be able to enter and change the PIN number from their SIM cards through the ICX35-HWC and, if needed, use the PUK code to unlock the SIM. <p>Note: We strongly encourage using 4G/LTE SIM cards.</p>
1.2	7-Sep-2016	<ul style="list-style-type: none"> Network Time Protocol (NTP) support - Configures an NTP server to update the time on the ICX35-HWC. Radio card firmware upgrade mechanism - Upgrades the radio card firmware using the ICX35-HWC user interface. EtherNet/IP support - Enables EtherNet/IP controllers to gather diagnostic and data from the ICX35-HWC. SMS support - Enables SMS support. <p>Note: We strongly encourage using 4G/LTE SIM cards.</p>
1.1a	29-Apr-2016	<ul style="list-style-type: none"> Fixes a firmware update issue with ProSoft Connect.
1.1	31-Mar-2016	<ul style="list-style-type: none"> Port Forwarding feature enabled – Max 10 entries. ProSoft Connect integration feature enabled.
1.0	5-Feb-2016	<ul style="list-style-type: none"> Data Loss Transferring Large Files in Serial Generic Mode - Transferring packets exceeding 1024 bytes in length in Serial Generic mode may result in a loss of data. Serial DF1 Full Duplex using UDP does not transfer data properly.

2 Support, Service & Warranty

2.1 Contacting Technical Support

ProSoft Technology, Inc. is committed to providing the most efficient and effective support possible. Before calling, please gather the following information to assist in expediting this process:

- 1 Product Version Number
- 2 System architecture
- 3 Network details

If the issue is hardware related, we will also need information regarding:

- 1 Module configuration and associated ladder files, if any
- 2 Module operation and any unusual behavior
- 3 Configuration/Debug status information
- 4 LED patterns
- 5 Details about the interfaced serial, Ethernet or Fieldbus devices

Note: For technical support calls within the United States, ProSoft Technology's 24/7 after-hours phone support is available for urgent plant-down issues.

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2.2 Warranty Information

For complete details regarding ProSoft Technology's TERMS & CONDITIONS OF SALE, WARRANTY, SUPPORT, SERVICE AND RETURN MATERIAL AUTHORIZATION INSTRUCTIONS, please see the documents at: www.prosoft-technology.com/legal