

Release Notes

HelixNet V4.5.46.0 RELEASE NOTES



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1 Introduction

1.1 Scope

This document describes 4.5.46.0 firmware release for HMS-4X hosted HelixNet systems only.

Note: Arcadia includes all firmware for HelixNet on Arcadia. This document is for HMS-4X systems only.

1.2 Version 4.5.46.0 – HXII-DPL Powerline Release – Overview

HelixNet version 4.5.46.0 firmware is a feature release that includes support for the HXII-DPL Powerline Device, in addition to feature refinements and bug fixes.

Features:

- 91616 HXII-DPL Powerline Device Support

System Changes:

- 144318 Component Update Support
- 146913 Headset Sense Bypass default Enabled on HBP-2X

Bug fixes:

- 59428 Speaker/Remote Stations require power cycle after changing PoE to Powerline
- 146320 Remote Station Mic On inverted on Keyset 1 with GPO after power cycle
- 128821 Four-Wire input require mute toggle to be heard on Remote/Speaker Station
- 144017 Remote Station Expansion needs to be re-enabled after power cycle

1.3 Version 4.5.46.0 – HXII-DPL Powerline Release – Change Details

Features:

91616 Features – HXII-DPL Powerline Device Support

This release updates HelixNet user stations to recognize connection via the HelixNet HXII-DPL Powerline Device. HXII-DPL is a bridge between ethernet network and a powerline that can be accessed passively by multiple HelixNet User Stations over standard 3 pin XLR cables. When connected via the HXII-DPL the HelixNet user stations make accessible their network and pairing menus and the user station will now operate as if connected by ethernet. Using those the user stations must be given static or DHCP provided IP addresses after which the user station can be paired with the HelixNet main station.

Note:

HelixNet User Stations must be upgraded to version 4.5 prior to use with HXII-DPL Powerline Device.

HelixNet User Stations will not downgrade below version 4.5 when connected via HXII-DPL.

HelixNet HBP-2X beltplacks will work with HXII-DPL if they have been upgraded to version 4.5 using HMS-4X Powerline ports previously.

System Changes:

144318 System Changes – Support for new Flash Memory chipset

Due to component obsolescence new components will be implemented in production runs of HXII-BP early 2024. There will be no feature or functional difference to the user.

146913 System Changes - Headset Sense Bypass default Enabled on HBP-2X

HBP-2X includes a circuit intended to detect if a headset is connected to the beltpack along with logic that reduces data transmission when the headset is not detected. The non-user accessible default value has been changed to bypass this feature to avoid issues when used with certain 3rd party headsets.

Bugs Fixes:**59428 BUG Speaker/Remote Stations require power cycle after changing PoE to Powerline**

HelixNet Speaker/Remote Stations share a network interface between Ethernet and Powerline. As implemented this required a power cycle when going from Ethernet to Powerline operation. This has been fixed.

146320 BUG Remote Station Mic On inverted on Keyset 1 with GPO after power cycle

HelixNet remote stations with keyset 1 function assigned to the stations GPO could result in the Mic On button operating inverted compared to the Keyset 1 Talk key after power cycle along with certain networks.

This has been fixed.

128821 BUG Four-Wire input require mute toggle to be heard on Remote/Speaker Station

Remote/Speaker Station users could find that they needed to toggle a keyset to hear a four-wire input assigned to the channel on the keyset after a power up. This was more likely on larger systems / networks at power up or re-connection and is a further enhancement on bug resolution 73461.

This has been fixed.

144017 BUG Remote Station Expansion needs to be re-enabled after power cycle

In rare instances Remote Stations would not connect and expand on larger systems / networks at power up or re-connection requiring the expansion setting to be toggled on and off to reconnect or power cycle the Remote Station.

This has been fixed.

1.4 Version 4.4.22.0 – Maintenance Release – Overview

HelixNet version 4.4.22.0 firmware is a maintenance release including feature refinements and bug fixes.

System Changes:

- 89354 HelixNet User Stations: mDNS advertisement for Arcadia Discovery
Note: Has no practical use for HMS-4X Hosted HelixNet systems
- 94419 Component Update Support: New physical flash memory
Note: HelixNet Endpoints built from the end of 2022 and onwards will require use with HelixNet HMS-4X version 4.4+ or Arcadia Release 2.1+ (fw version 2.8+).

Feature Enhancements:

- 89354 Headset Mic Level: Additional Gain Steps
- 89354 Sidetone Level: Additional Gain Steps
- 93098 Speaker Dim: Full Cut Option

Bug fixes:

- 73461 4-Wire Audio: Lost after 49.7 days runtime
- 75175/78806 HRM Expansion Mode: Does not connect on system power-up
- 89366 In-Use Tally: Stuck on when disabled in low brightness mode
- 94287 HXII-BP/HBP-2X: Unassigned Keyset 2 Call stays on after entering menu
- 59920 HRM-4X/HKB-2X: Pairing to None does not disconnect from System Host

1.5 Version 4.4.22.0 – Maintenance Release – Change Details

System Changes:

89354 System Changes – HelixNet User Stations advertise their host names with mDNS

HelixNet User Stations now advertise their host names with mDNS on the network. This function is used by Arcadia to discover HelixNet User Stations within the CCM, allowing the user to select and pair discovered units to the Arcadia system instead of having to pair HelixNet User Stations individually from their front panel menu. Central Discovery and Pairing of User stations will **not** be available for HMS-4X, however the mDNS announcements are included in this HMS-4X release to ease the HelixNet User Station pairing to Arcadia should they be used interchangeably on HMS and Arcadia systems.

94419 System Changes – Support for new Flash Memory chipset

Due to component obsolescence a new flash memory chip will be implemented in production runs of HXII-BP, HKB-2X and HRM-4X towards the end of 2022. There will be no feature or functional difference to the user, except that there will be a minimum firmware required for these units and the user will be prompted on the HXII-BP, HKB-2X, HRM-4X to upgrade their system HMS to 4.4+ or Arcadia 2.4+ if required for use with the units.

Feature Enhancements:

93098 Role Feature Enhancement – Speaker Dim Enhancement

The Speaker Dim feature that allows the speaker of a HMS-4X, HRM-4X and HKB-2X to be dimmed while a Talk key is engaged now includes a “Full Cut” option to allow a speaker to fully mute the speaker.

89354 Role Feature Enhancement – Sidetone Level Enhancement

The Sidetone Level setting now includes additional level steps for more granular control of sidetone level. Level setting options now are 0dB through -30dB, in 3dB steps along with the option to mute the sidetone.

89354 Role Feature Enhancement – Headset Mic Type Enhancement

The Headset Mic Type setting now includes additional level steps for more granular control of the headset mic input level. Level setting options now are 0dB through -21dB, in 3dB steps between Dynamic and Electret options. **Note:** going between Dynamic and Electret settings will cause an audible “pop” as voltage is added or removed from the microphone capsule.

Bugs Fixes:

73461 BUG - 4-Wire Audio: Lost after 49.7 days runtime

In rare instances audio could get lost or distorted after extended system uptime due to routine internal system processing not ensuring all audio paths were recreated, requiring a reboot.

This has been fixed.

75175/78806 BUG - HRM Expansion Mode: Does not connect on system power-up

Expansion mode is the ability to merge multiple HMS and/or HRM into a unified User Station for a single intercom user with 8 to 24 keysets, where the headset, gooseneck and speaker is only used on one device in the Expansion Group.

In certain network environments when powering up a whole HelixNet system the HRM Expansion mode could timeout before Expanding to other HRM leaving the user to either re-link or power cycle the HRM that did not expand.

This has been fixed.

89366 BUG - In-Use Tally Role Settings: Stuck on when disabled in low brightness mode

In-Use Tallies were added to HelixNet in version 4.2 to visually show a user which channel(s) have Talk activity. When the In-Use Tallies were disabled in low brightness mode the In-Use Tallies would stay on requiring the user to change the brightness to fully disable the feature on the selected keyset.

This has been fixed.

94287 BUG - HXII-BP/HBP-2X: Unassigned Keyset 2 Call stays on after entering menu

During navigation of the menus of HelixNet belt packs the Call keys are used for menu navigation. Should Keyset 2 be unassigned then the user may notice its Call key erroneously remain lit following exit from menu navigation.

This has been fixed.

59920 BUG – HRM-4X/HKB-2X: Setting network pairing to None does not disconnect from System Host

Ethernet connected HelixNet User Stations allow pairing to the system host (HMS or Arcadia) to be done from the front panel by selecting the mDNS name of the system host. On HRM-4X and HKB-2X it was not possible to disconnect from the currently selected system host. Selecting None kept the previous connection.

This has been fixed. Previously a Known Issue.

1.6 Version 4.2.7.0— Legacy - Feature Release – Overview

HelixNet version 4.2.7.0 firmware is a release which includes administrative functionality for user stations, support for HKB-2X-X7 which is new hardware variant adding (2) PTT/GPI assignable to keys, as well as feature refinements and bug fixes.

Features:

- 66895 In-Use Tally (HMS, HRM, HKB, HBP, HXII-BP)
- 66888 Minimum & Maximum Volume Limits (HMS, HRM, HKB, HBP, HXII-BP)
- 66885 Talk Interlock Group (HMS, HRM, HKB, HBP, HXII-BP)
- 66887 Secondary Talk Action (HMS, HRM, HKB, HBP, HXII-BP)
- 66886 Talk Latch: Permanent (HMS, HRM, HKB, HBP, HXII-BP)
- 66889 Loudspeaker Mute (HMS, HRM, HKB)
- 66890 / 66891 HKB Shift Page Options (HKB)
- 71674 Headset Key Options (HMS, HRM, HKB)
- 69579/57904 Support for new HKB-2X-X7 7-pin XLR headset variant with 2 PTT/GPI

System Changes & Enhancements:

- 67303 IP Traffic: DSCP QoS tag value change
- 67665 Unique Password: Workflow Refinement
- 61431 HMS new front panel reset options
- 57904A PTT/GPI: assignable to Headset (HSet) key
- 57904B PTT/GPI: can be assigned to multiple functions
- 70043 / 61223 Termology Changes: GPIO
- n/a New default for CCM Assignment page “Hide all unused channels” tickbox
- 65062 Expansion Member Reset: Improved prompt
- 60919 Invalid File Recall: Improved prompt

Bug fixes:

- 60766 HRM Invalid front panel menu item
- 60923 CCM Program Audio Parameter name clarification
- 71090 HRM Expansion Host doesn’t publish mDNS name for slave connection

1.7 Version 4.1.35.0 – Legacy - Maintenance Release

HelixNet version 4.1.35.0 firmware was a minor release including enhancements for large system deployments, improved support capabilities, feature refinements and bug fixes.

System Changes:

- 55129 CCM New Default Password - Now Unique to the HMS-4X hardware

User must find the Device Unique Password from the Front Panel Menu under Administration.

Enhancements:

- 57691 GPI Control of MIC ON for HelixNet HMS and HRM
- 46201 HMS restore functionality allowing configuration of cold standby units
- 46306 Front panel Role selection list sorted alphabetically
- 52138 Restore and Reset function terminology clarification
- 45936 HRM - Resource load on HMS can be manually allocated
- 45937 CCM - System resource counter
- 50465 Time synchronization for support information
- 52553 SSH access disabled
- 53943 Contour filter default changed to OFF
- 50464 Service Function: USB Logging - Non-volatile support information
- 59177 Service Function: USB Reset – Allows unit to be reset from USB
- 53187 Datasheets/Documentation: Network Specifications added

Bug fixes:

- 66393 BUG: HXII-BP Connection Recovery Mechanism
- 61341 BUG: Link Group members do not always connect upon power up
- 57456/60607 BUG: Configuration not restored from USB after upgrade w/o Reset to default
- 58687 BUG: HRM duplicated for 25 seconds following pairing to another HMS
- 50784 BUG: HMS power-up issue resulting in one-way audio on HLI modules
- 42288 BUG: HMS/HRM Expansion slave connection issue on power-up
- 54172 BUG: HLI-2W2 – Null parameters are not always recalled
- 44677 BUG: Roles do not update from endpoint menu
- 49969 BUG: GPO assignment limitations
- 47657 BUG: CCM edited endpoint names are not stored
- 56273 BUG: Missing host name when not in DHCP
- 50992 BUG: CCM Display Corruption
- 58865 BUG: HXII-BP Talk key stays lit when set to Disabled
- 51141 BUG: CCM Add Role dialog sticks to the Default role
- 56540 BUG: Jitter buffers do not fully expand on heavily loaded Powerlines

1.8 Version 4.0.53.0 – Legacy – Minor Maintenance Release

Minor release providing bug fixes.

Bug fixes and enhancements:

- 40313 - Excessive noise gate triggering when input gain is set to a very low value
- 40387 - Several CCM functions not working when HMS is used as an expansion panel
- 40549 - Restore through front panel menu fails HMS when no Ethernet module is present
- 40585 - Improperly inserted interface module or a defective module may cause system to reboot
- 41792 - Switching role sometimes overwrites with previous values
- 41830 - HMS in reboot loop after upgrade from version 3.x to 4.0
- 41872 - Modification of role settings may result in a corruption of the role and possible interruption of the system
- 41168 - Unable to fire GPO (relay) on HMS that has been assigned to trigger on Call from an Agent-IC mobile client

1.9 Version 4.0.28.0 – Legacy – Minor Maintenance Release

Minor release providing bug fixes.

Bug fixes and enhancements:

- 37681, 37684, 37736 - Fixed a variety of mDNS issues
- 37680 - SA key press and release results in lost latched keys on expanded panels
- 37682, 37683 - Audio outputs on 4W and 2W modules occasionally missing the first syllable

1.10 Version 4.0.18.1 – Legacy – First Release

Major release providing new features, enhancements and bug fixes.

New Features:

- Linking of up to three LQ Series devices to any HelixNet Main Station set into Link-Master mode thereby providing access to a variety of interface types including 4-wire, 2-wire, GPIO, SIP, IVC and Agent-IC virtual panel application connectivity.
- Split-ear configuration and operation on all HXII-BP HelixNet Beltpacks
- Common look and feel of the CCM between both HelixNet and the LQ series

Bug fixes and enhancements:

- 28593: Single-channel assignment on a beltpack when “Rotate Display” is also enabled, results in the level control becoming ineffectual

1.11 Upgrade Instructions

Upgrade Process:

1. Back up the system configuration
2. Update all HMS-4X and LQ in a Link Group to matching minor (4.4.x) firmware versions
3. Allow the HMS-4X to complete update of its system components and configuration
4. Load the HXII-BP *.ubifs.gz file into all HMS-4X

Using the CCM browser-based interface with HMS-4X units running v3.0 or higher:

1. Download the two v4.5.46.0 upgrade files (.ccb and .ubifs.gz)
2. Within the CCM browser utility, navigate to **Device > General** on the target HMS
3. Select the .ccb upgrade file and click **Upgrade**. Allow the system to update endpoints and system configuration.
4. Select the .ubifs.gz upgrade file and click **Upgrade**. Allow the system to update.
5. Verify that all HMS are updated to version v4.5.46.0 from within the **General** page (IP on device icon is orange).

Using the front panel menus on HMS-4X units running v1.0* or higher:

1. Download the two v4.5.46.0 upgrade files to a USB Flash Drive (.ccb and .ubifs.gz)
2. Insert the USB Flash Drive into the USB port on the front of the Main Station
3. Press the Menu button on the HMS and navigate to: **Administration > Software > Upgrade**
4. Select the .ccb upgrade file within the 4th display and press the encoder to apply. Allow the system to update.
5. Press the Menu button and navigate to: **Administration > Software > Upgrade**
6. Select the .ubifs.gz upgrade file within the 4th display and press the encoder to apply. Allow the system to update.
7. Verify that all HMS are updated to version v4.5.46.0

Please Note:

- Loading the .ccb file upgrades the HMS, any hosted HLI modules and paired HBP, HKB and HRM. Following firmware upgrade the HMS will upgrade its system configuration during which the HMS and the CCM may be slow to respond. Allow 5 minutes before power cycling the HMS.
- HelixNet configurations on HMS are forward compatible and automatically upgraded following the firmware upgrade. Allow 5-10 minutes following the upgrade before power cycling the HMS to allow the HMS to process the configuration update. Due to addition of features and ongoing development, configurations upgraded configuration files are not backwards compatible.
- To upconvert an older configuration file, the file must be on HMS during a firmware upgrade. Configuration files should be only be upgraded to the next major version (i.e. 3.x to 4.x etc).
- System downgrades will reset any configuration to default.
- Stored HelixNet configuration files are only compatible with the version they were stored on.
- HelixNet HRM-4X, HKB-2X and HXII-BP built from end of 2022 and onwards need to run on HelixNet version 4.4+ or Arcadia 2.4+.

For devices running old firmware:

- HelixNet 1.x endpoints should be stepped to be upgraded to version 2.0 and then onwards to version 3.1 before upgraded to version 4.x. Reset device to default if issues are encountered.
- HelixNet 2.0 endpoints - connected over Ethernet - need to be upgraded to version 3.1 before being upgraded to version 4.x or higher due to internal IP port changes.

2 Part Number Reference

2.1 Firmware

Part No	Description	File Type	Production Rev	Dev Issue	Last updated in Release
780G061	HelixNet System Firmware	*.ccb	H	4.5.46.0	V4.5
780G061	HelixNet HXII-BP	*.ubifs.gz	H	4.5.46.0	V4.5

2.2 Documentation

Part No	Description	Production Rev	Doc Issue	Last updated in Release
810589Z	HelixNet Partyline Quick Start Guide	F	F	V4.1
399G070	HelixNet Partyline Quick Start Guide (HRM/HKB)	B	B	V3.0
399G051	HelixNet Partyline Linking Quick Start Guide	C	C	V3.0
399G230	HelixNet Partyline Roles Quick Start Guide	B	B	V4.1
399G229	HelixNet Partyline User Guide v4.x	E	E	V4.4
None	HMS-4X HelixNet Main Station Datasheet			
None	Digital-Analog Partyline Cabling Comparison Technical Guide			
None	HelixNet Cabling Calculator			
None	SFP Chart for Clear-Com Products			
None	HelixNet Passcode Customer Letter Template			

3 Known Issues

This section details those issues that contradict the relevant manuals included in this release. These issues have not yet been resolved and are listed here to help you use the system more effectively.

38782	HRM Stage Announce: Occasional loss of audio on HRM Stage Announce Output after a reboot of HMS. Workaround: Un-pair/Re-pair HRM or reboot HRM if this condition exists after the reboot of the HMS has completed.
28593	HBP and HXII – with Reversed Display: When assigned to one channel the audio level control may not work. Workaround: Assign the same channel to both keysets.
28442	Endpoint Role Selection Dialog: The dialog allows selection of the name of the endpoint – Hostname - this selection has no function at all. The endpoint will remain on the previous selection. Workaround: Reselect the desired Role / Local Config.
62686	HMS Expansion mode: Expansion mode may on rare occasions fail to deploy on system power-up if one of the HMS Link Members is a Host to another HMS Link Member Slave. Workaround: Designate the HMS Link Master as an Expansion mode Host and HMS Link Members as Link Member Slaves.
28600	HXII-BP Upgrade Counter on HMS front panel: During an upgrade that includes a large number of HXII-BP the device counter on the front panel of the HMS may not initially show a full device count. The counter will eventually update. All beltacks will upgrade. Workaround: Allow the system to finish its update.
28601	Support info following upgrades: In rare instances it will not be possible to export Support info following a system upgrade. Workaround: Wait for the system or power cycle the HMS.
59428	Changing connection methods between IP and Powerline may require IP setting refresh: When changing a portable endpoint from IP connectivity to Powerline the endpoint may not change to the different network interface by itself. Note: Only one connection method can be used at a time is the specified behaviour. Workaround: 1) Power cycle the endpoint after the first connection. 2) Reset the endpoint.
59429	IP connected endpoint does not connect when on a different subnet than HMS: It is possible to do a Pair-by-Name from an endpoint to HMS even though the endpoint is not on the same subnet as the HMS. This is because the mDNS name of the HMS can transverse subnets while connection can't. Workaround: Configure the IP settings of the endpoint so it can connect to the HMS.
59820	HBP-2X Do not load stacked keys during HMS power up: The legacy HBP-2X beltack (metal version) has been observed missing stacked key assignments when connected during HMS power up. Workaround: Unplug and connect the beltack after the system has booted or reselect role.

75587	<p>HMS-4X Link Group Member does not re-link following change to IP Address: Following a change to the IP address the Master may take time to re-correlate mDNS and the updated IP address.</p> <p>Workaround: Reboot the Link Group Master</p>
75633	<p>HMS-4X Link Member – Changing Channel names from front panel: Changing a Channel name on the front panel of HMS-4X configured will only change the name of the Channel for endpoints connected to the HMS-4X Link Member. The change will not propagate to the Link Master and the rest of the system.</p> <p>Workaround: Change the Channel name on the HMS-4X Link Master or in the CCM.</p>
71545	<p>Active GPI states not maintained during configuration change; When the properties of a button are change while assigned a GPI that is made, the button state may not read the GPI state until the GPI state is changed.</p> <p>Workaround: Toggle the GPI following a configuration change.</p>
n/a	<p>HMS does not find an inserted USB key: In rare instances the HMS may not be able to read older or larger USB memory devices connected to the front panel USB A connector for firmware upgrades or config backups.</p> <p>Workaround: Suggest trying a different or newer USB stick or formatting. 16Gb or smaller.</p>