



# Iridium Extreme<sup>®</sup> PTT

Software Release Note

IRDM-1023-SRN-004 v7.0

HP23001

## Iridium Proprietary Business Information

Iridium Satellite LLC, 1750 Tysons Boulevard, Suite 1400 McLean, VA 22102 USA  
Toll Free US Only: +1 866 947 4348 International: +1 480 752 5155 E-Mail: [info@iridium.com](mailto:info@iridium.com)  
[www.iridium.com](http://www.iridium.com)



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## 1 Introduction

This document details the use of the Iridium Extreme® PTT software upgrade tool and lists the feature changes contained within the version HP23001 release.

## 2 Upgrade Tool OS Compatibility

The upgrade tool that accompanies this release has been tested with Microsoft Windows 10. The instructions that follow in this document assume the use of this version of Microsoft Windows.

## 3 Performing the Upgrade

The following steps should be used to upgrade an Iridium Extreme® PTT from version HP15003 or later.

- Run the upgrade installer application.
  - The application is named "Iridium Extreme PTT Software Upgrade HP23001 Installer.exe".
  - This will place the upgrade tool into the C:\Program Files\Iridium\Extreme PTT directory.
- Prior to performing the upgrade complete the following:
  - Disable Bluetooth on the PC running the upgrade.
  - Remove the SIM card from the handset and install the handset battery.
  - Turn the handset on.
  - Ensure that the battery is fully charged or a charger is connected to the handset.
- Connect the handset to the PC using a USB cable.
  - If the handset is being connected to this PC for the first time, or to a USB port that has not been used before, the driver will be installed automatically. If this is the case, wait for Windows to show the "New Hardware Installed" notification before proceeding.
  - If Windows is unable to automatically locate the USB driver, it can be found at C:\Program Files\Iridium\USB\BC5\VCOM directory.
- Run the Iridium Extreme PTT Software Upgrade tool.
  - A shortcut to this application should be available in the Start Menu in the Iridium Extreme Software Upgrade folder.
  - The target of the shortcut is C:\Program Files\Iridium\Extreme PTT\Upgrade\_Tool\Iridium Extreme PTT Software Upgrade HP23001.exe



- Follow the instructions presented by the upgrade tool user interface.
  - During the upgrade process the handset will display various information on the screen, including “Upgrading...”
  - At times the handset screen may go completely blank.
  - Do not disconnect the handset or press any keys while the upgrade is in progress.

**Note:** The handset will be rebooted into a USB standard Device Firmware Upgrade (DFU) mode during the upgrade. The DFU driver will be installed if the PC has never been used with a handset in DFU mode before. If Windows is unable to automatically locate the USB DFU driver, it can be found in the C:\Program Files\Iridium\USB\BC5\DFU directory.

## 4 Hardware Compatibility

This software release has been tested to be compatible with the following hardware models.

Hardware Models			
IRID0315D01	IRID0315M		
IRID0315K			

Iridium may produce and distribute hardware models loaded with software version HP23001 that are not indicated on this list at its sole discretion and without notice.



## 5 Change List

### 5.1 HP23001

Description
Updates to support transceiver improvements.

### 5.2 HP21001

Description
Added optional audible indication of network connectivity status changes. User-configured in Menu > Setup > Volume and Tones > Network Tone.
Improved probability of push-to-talk listeners hearing the Release Tone after the talker has released the floor.
Improved communication channel selection algorithm used when establishing a connection with the network in telephony mode.
Added stronger validation checking of periodic radio calibration changes before storing to persistent memory in telephony mode.
Improved communication channel timing alignment between the transceiver and network in push-to-talk mode.
Reduced delay of talkgroup activity indications to user in push-to-talk mode.
Improved reliability of call setup in push-to-talk mode.
Enhanced the communication channel selection algorithm used when communicating with the network in push-to-talk mode.
Optimized radio management algorithm to improve allocation of receiver resource in push-to-talk mode.
Addressed issue in push-to-talk mode where channel assignments were inadvertently being discarded.



### 5.3 HP19004

Description
Leveraged enhancements offered by the Iridium NEXT constellation to improve network connectivity and improve reception of transceiver ring notifications from the core network.
Fixed an issue preventing display of predictive help content.
Corrected an issue preventing display of software version in French.
Updated Iridium branding content in Upgrade Tool.

### 5.4 HP18005

Description
Resolved an issue wherein when the user attempted to enter the SMS menu when the outbox on the SIM was full the handset would reboot.
Enhanced GPS receiver performance when handset is powered from external sources including docking stations.
Modified battery charging algorithm to ensure compliance with battery specifications.
Modified transceiver behavior to comply with the European Union Radio Equipment Directive in failure conditions.

### 5.5 HP17004

Description
Addressed an issue in both telephony and push-to-talk mode where channel assignments were inadvertently being discarded in some situations thereby improving overall handset performance.
Resolved a pair of issues in push-to-talk mode where an infrequent race condition and failure mode in the over-the-air provisioning could result in the talkgroups indicated on the handset being out-of-sync with the push-to-talk gateway elements.
Fixed a set of memory leaks in push-to-talk mode that could cause the handset to become unstable when operated for long periods of time.
Fixed an edge-case issue in push-to-talk mode that could cause the handset to stop indicating the current received signal strength.
Updated product software to be compatible with most current handset hardware.



## 5.6 HP17002

Description
Improved accuracy of reporting when SMS storage on the SIM has reached capacity.
Updated startup splash screen to display a NEXT constellation satellite.
Improved handset upgrade: added support for Windows 10; required drivers are now installed automatically; and the upgrade itself is faster in some situations.
Added functionality to allow short codes to be stored in the phonebook, used from the phonebook, and dialed directly.
Improved responsiveness to power button press to turn the handset off.
Improved the translations for some non-English menu languages, added support for all languages in push-to-talk mode, and added Kurdish (Sorani) as a new language option.
Fixed issue where a redialed SOS call would show "Calling %s" instead of the correct number.
Fixed an issue where Location Based Services would not work correctly after a power cycle with the charger connected.
Improved reporting of signal strength on the user interface and the AT interface.
Fixed an issue where a remote DTMF button press could unmute a local handset.
Use of SBD services is now permitted when no SIM card is present in the handset. (Note: Mobile-Terminated SBD messages are not supported on the Iridium Extreme® PTT handset.)
Added an alert to notify the user that the antenna should be extended when placing a push-to-talk call.
Various minor user interface improvements in push-to-talk mode.
Removed delay that could occur in some situations after a user initiates the switch to push-to-talk mode from the menu option.
Fixed an issue where AT commands could not be used after switching between push-to-talk and telephony modes.
Improved screen signal strength indications to more quickly reflect the signal strength seen by the handset when in push-to-talk mode.

## 5.7 HP15003

Description
First production release.