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**Gemini RayFish Controller
Distribution 3.3.1
Release Notes**

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Gemini RayFish Controller Distribution 3.3.1 Release Notes

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Product Description

The Gemini RayFish Controller software consists of the following PCC, SDR, Bootloader, Slice controller, and Slice software versions:

- Gemini Software Versions:
 - Gemini PCC Version: 3.3.1.1015
 - Gemini Distribution-3.3.1.10010 DEF File (or greater)
 - Bootloader Version: 2.7.3.1
 - GSM SDR Version: 4.8.5.1
 - CDMA SDR Version: 7.6.4.0
 - UMTS SDR Transceiver Version: 3.4.4.1
 - UMTS SDR Receiver Version: 3.4.4.1
- LTE Software Versions:
 - Slice Controller Version: 2.6.0.1007
 - Slice System Software Version: 2.6.0.1016
 - Slice Application Software Version: 2.6.0.1012
- Support Product Software Versions:
 - Map Router 1.8.0.1037
 - RayFish Download Utility 4.3.0.1017

Important Notes

- Gemini is compatible with Windows XP, Windows 7, and Windows 8.1 (32 bit and 64 bit). Windows 7 is the recommended operating system.
- You cannot downgrade from Gemini 3.3.1 to a previous version of Gemini when using a HailStorm. If this is necessary, please contact the WPG support team.
- During installation, ensure that only the latest Gemini DEF file is located in the same directory as, or one directory above, the Installer.exe file.
- New ArrowHead SW is released with Gemini 3.3.1. When first connected, it may take up to 10 minutes for the upgrade to complete. DO NOT power cycle the ArrowHead during this time.
- It is strongly recommended to run the Gemini Installer without RayFish hardware attached.
- When running the Gemini Installer, new foundation files required by Gemini will first be installed onto the laptop, followed by the installation of the Gemini PC Controller. If prompted to reboot

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the PC during any portion of the installation, select "No" and let the full installation finish. Once all the software is installed, it is recommended to manually reboot the laptop.

- Gemini 3.3.1 utilizes the USB drivers that were first introduced with Gemini 2.3, iDEN 2.3, and RDU 4.3. These drivers are incompatible with the legacy controller software for GSM, CDMA, and UMTS, previous versions of Gemini, and previous versions of the RDU. If previous versions of RayFish applications are needed, it is recommended to use a separate computer.
- Any manipulation of PC time must be addressed by changing only the current time zone. Incorrect date and/or time may trigger an expiration of the Gemini activation license.
- Contact Customer Support if the SyBIR requires updating. The StingRay II SyBIR software was removed from the Gemini DEF file to improve StingRay II hardware stability. We are advising customers to not install SyBIR software from older versions of the Gemini DEF file.

Features

This release of the Gemini RayFish Controller includes the following features:

New Feature:

- **UMTS Survey Uplink Measurements Option** – A UMTS survey preference is now available to turn on/off the Uplink Measurements for the RF Spectrum view. This option will be turned on by default for KingFish, StingRay II, and HailStorm platforms. It will be turned off by default for StingRay I platforms.

New Feature (HailStorm only):

- **Slice Auto-recovery Mechanism** – Gemini 3.3.1 introduces Auto-recovery mechanism to improve Slice stability on the HailStorm. If a Slice gets into a corrupt state, the system has the ability to automatically recover the Slice by re-installing the software with no user interactions. This could take up to 15 minutes after a slice disconnects.

Bug Fix (HailStorm only):

- **LTE Transmit Idle** – Occasionally, a Slice would stay in the Idle state after starting a mode but then recover on the next iteration. This has been resolved.

General Enhancement (HailStorm only):

- **Slice Controller Connectivity** – The Slice Controller would fail to connect when an unsupported version of Java was installed on the laptop. This has been resolved by providing the supported Java version in the installer directory.

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Bug Fix:

- **Empty Combo Box Crash** – An occasional registration crash was resolved when first starting the mode.

Known Issues (New)

- **Slice IP configuration Issues on Windows XP** – On Windows XP laptops, Slices occasionally enumerate to the same IP address, causing issues at first start-up. To resolve, the USB connection to the laptop will need to be switched to a different USB port.
- **Database Viewer Invalid Format Error** – An invalid format error will prevent you from displaying the UMTS MSDF All Results in the Database Viewer if a Subscriber state was "Lost". To view the UMTS MSDF data, the database can be opened in another database reader, such as SQLite.
- **SDR resets on UMTS Survey** - Some legacy units exhibit SDR resets during UMTS survey when UMTS Uplink Measurements are enabled during survey. To avoid SDR resets, disable the UMTS Uplink Measurements option under Preferences->Survey->UMTS.

Known Issues (Old)

Add New Provider Association Comm Failure – Occasionally when using a HailStorm, the Gemini PCC will close with a Comm Failure after attempting to save a new Provider Association.

Long-term Survey Stability – AutoSurvey may crash with an Access Violation after hours of uninterrupted Survey.

iPhone 5s/5c Cross-Protocol Redirect Incompatibility – MSDF Redirect from UMTS to GSM will not work with the iPhone 5s/5c models. The option to redirect will be disabled for the iPhone 5s/5c.

Microsoft Security Essentials PCC Lag Issues– If using Microsoft Security Essentials, it tracks Gemini PC Controller as suspicious activity and utilizes the majority of the CPU usage, causing Gemini to significantly lag. Recommendation is to disable Security Essentials, or add Gemini to the ignore list.

CDMA MSDF AJ-W False Bearing – If the previous CDMA MSDF session was stopped while the AJ was active, the previous bearing will display until the Rx antenna icon is toggled. This happens when the Rx options is defaulted to use the Main antenna.

Authorization Notification Disabled LTE MSDF Results Blank – The results view during an LTE MSDF operation will not update with the Subscriber information when the Authorization Notification option is disabled. When the option is enabled, the Subscriber information will be visible.

Gemini Restart – Closing down Gemini and then immediately restarting it sometimes causes USB drivers to become unrecognizable. This is fixed by waiting approximately 30 seconds and trying again. If that doesn't work, unplug the USB cable in the controller PC, plug it back in, and try again.

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CDMA BSDF SDR0 – CDMA BSDF only works on SDR 0. Sometimes StingRay 1 will attempt to perform BSDF on SDR 1 and fail.

IMSI Swapped Subscribers – When a subscriber is registered with a swapped IMSI, the registration result is displaying the original subscriber tag when first registered, as opposed to the updated, auto-generated subscriber tag. All subsequent registrations display the proper tag.

Incorrect PLMN with GSM Load Last – Sometimes the incorrect PLMN is loaded when “Load Last” is used on back-to-back GSM active modes.

External GPS – Sometimes an external GPS device will emit erroneous GPS ticks, causing the Gemini activation license to expire.

Transmit Timing Source (CDMA) – Changing the CDMA Transmit Timing Source could cause some handsets to update with the incorrect time.

Inconsistent Results with Cross-Protocol Redirect – Some handsets react inconsistently when redirected across protocols GSM to UMTS and/or UMTS to GSM.

Registration Loading (CDMA) – CDMA ACN Reg Loading graph is incorrectly displaying % rather than the actual number of Access Channels (ACNs) in use.

TX Ready Indicator – The TX ready indicator doesn't always reset to red after the survey is clear/restarted. This has been seen to occur when databases are very large. Also, on rare occasions Gemini will perform gathering data even though the indicator is green.

Interfering Channels – When manually adding channels for transmit, Gemini is not correctly warning users of channels that would interfere with each other.

General Bands (CDMA) – During CDMA channel selection, if a band was surveyed before it was disabled in General Bands, channels in the disabled band could still potentially be displayed for transmit.

Bluetooth Connection – Gemini will display the Bluetooth connection window when Bluetooth connection is enabled regardless of whether USB is connected or not. Gemini should ignore Bluetooth if a USB connection has already been established.

Harpoon Detailed Status – The text “VARIABLE” is displayed incorrectly on each line of the harpoon hardware status.

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