FX30 14.0.4.002 Release Notes

Compatibility

Hardware

Release 14.0.4.002 is compatible with all Sierra Wireless FX30 and FX30S 3G Programmable IoT Gateway commercial units. This release is not compatible with FX30 early samples with serial numbers starting with LLxxx and xxx < 629.

Compatibility with Developer Studio

The FX30 target is available on Developer Studio 5.1 or newer. For more information about the current version of Developer Studio, please see the Developer Studio 5.1 Release Note and the Developer Studio 5 Install Instructions, available on the Source.

You can use Developer Studio to:
- build and install a Legato app into an FX30/FX30S unit
- build and install a Legato System consisting of a group of apps. The system will replace all existing apps once installed.
- create and install a legato.cwe file from this system. The .cwe file includes the scripts and daemons included in a regular Legato build.
- upgrade FX30/FX30S firmware.

A Yocto Kernel custom build is available.

Build contents

The Bootloader/Kernel/Yocto source code is available on the Source at: https://source.sierrawireless.com/resources/airlink/software_downloads/fx30-firmware/fx30-firmware/

Note: Sierra Wireless supports building the Legato source code using Ubuntu 14.04 or Ubuntu 16.04 only. The Legato source code cannot be built using Ubuntu 18.04.

This firmware is based on WP8548 Release 14.0. For more information, see the Release 14.0 Customer Release Notes.

The fwupdate query command will return the following results:

Firmware Version	SWI9X15Y_07.12.09.00 r34123 CARMD-EV-FRMWR1 2017/04/26 23:34:19
Bootloader Version	SWI9X15Y_07.12.09.00 r34123 CARMD-EV-FRMWR1 2017/04/26 23:34:19
Linux Version	3.14.29ltsi-a00e464379_499694411b #2 PREEMPT Tue Jun 12 16:49:03 PDT 2018
FX30 Version	R14.0.4.002
Legato Version	16.10.1.m3_f5d280aff1eaa96ea8459ca6effa50c5

*Note: The Legato version reported is 16.10.1.m3, which is a maintenance version branched off the official Legato version 16.10.3. Although the version is 16.10.1.m3, the version is **not** based off Legato 16.10.1.*

New Features

Wi-Fi

Added support for Talon Wi-Fi card (native Wi-Fi support only). For Bluetooth support, please see the Application Note 41111745.

Serial

Added RS485 configuration python script

Security Enhancements

Addressed potential vulnerabilities related to CVE-2017-8890 (see https://nvd.nist.gov/vuln/detail/CVE-2017-8890)

Addressed potential vulnerabilities related to CVE-2017-11176 (see https://nvd.nist.gov/vuln/detail/CVE-2017-11176)

Addressed potential vulnerabilities related to CVE-2017-14106 (see https://nvd.nist.gov/vuln/detail/CVE-2017-14106)

Bug Fixes

Resolved Ethernet network adapter configuration issue

Resolved uninitialized variables in the columbiaAtService application

Resolved incorrect FX30 version reported in images built via legato-spm

Resolved custom FX30 version not reported in images built via legato-spm

Resolved an issue where the AT!RMARESET=OEM command caused the FX30 to become inoperable. See also Known Issues on page 3.

Cumulative fixes to resolve PDP cycling issue

Legato: Fixed an incorrect registration state returned by the registration state handler

Legato: Resolved an issue where DHCP clients were not dropped after rapidly stopping and starting a connection

Legato: Fixed PDP cycling after rapid network registration changes

Resolved risk of corruption in User partition after power loss

Resolved an issue where the radio module tried to read the I2C EEPROM from the IoT card, causing the module to fail at bootup

Resolved an issue where mapping NMEA service to UART2 caused boot to fail

Resolved an issue where units with IMEIs ending in 5237 or 5235 would crash after starting an AirVantage session.

Known Issues

AT!RMARESET=OEM command causes AirVantage synchronization issues.

Warning: *Executing the AT!RMARESET=OEM command will result in AirVantage synchronization issues. The device may fail to sync, or sync after a long delay.*

FX30S: The Power LED does not turn off when entering Ultra Low Power Mode. Instead, you can manually turn off the Power LED using an AT command or sysfs.

FX30S: The serial transceiver is not disabled when entering Ultra Low Power Mode. Instead, you must enable RS485 mode before entering ULPM.

FX30 with the Talon Mirage IOT card Wi-Fi client in WEP mode returns error code -6

Note: WEP is not a recommended Wi-Fi Security protocol because of its inherent vulnerabilities. Use WPA/WPA2 instead.

Wi-Fi Client mode: The FX30 with the Talon Mirage IOT card has not been tested in WPA Enterprise or WPA2 Enterprise mode.

Wi-Fi Client mode: The FX30 with the Talon Mirage IOT card may not connect to a router that has implemented MAC address restrictions (e.g. a "whitelist"). If the FX30 does not connect, try disabling the whitelist.

Upgrade Procedures

Local Upgrade

SSH on USB:

1. Copy **FX30_WP8548_full_R14.0.4.002.cwe** to the FX30 file system using scp.

2. Open an SSH session.

3. Execute **fwupdate download FX30_WP8548_full_R14.0.4.002.cwe** .

Note: Legacy firmware images will still have the filename format
mcu-rmfw-boot-yocto-legato_wp85.cwe

Remote Upgrade

Using AirVantage.