Actility ThingPark

Software Release Notes

Multitech Conduit Base Stations - LRR 2.6.72

Under NDA

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VERSIONS

Version	Date	Author	Details
01	5-Aug-2022	Actility	Initial Version

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1 SUPPORTED PLATFORMS

For each LRR version, the combination of hardware model, FPGA and firmware version validated is mentioned with restrictions if applicable.

Note that in the list of features and fixed issues, no distinction is made regarding impacted hardware models. Some features/fixes can then be applicable to only some hardware models providing the required characteristics (like GPS support for instance).

1.1 Version 2.6.72

Hardware Model	FPGA	Firmware	HAL	Comment
Multitech Conduit Access Point	31	5.3.31	4.1.3_1 + patch #2	• Spectral scan issue • LBT: only 128µs carrier sensing time (5ms does not work)
Multitech Conduit V1.0 (USB)	-	-		• No more supported
Multitech Conduit V1.0 (SPI)	-	-		• No more supported
Multitech Conduit V1.5 (SPI)	31/35	5.3.31	4.1.3_1 + patch #2	• LBT: only 128µs carrier sensing time (5ms does not work)
Multitech Conduit Refresh V1.5 (SPI)	31/35	5.3.31	4.1.3_1 + patch #2	• LBT: only 128µs carrier sensing time (5ms does not work)
Multitech Conduit Outdoor IP67 V1.5	31/35	5.3.31	4.1.3_1 + patch #2	• LBT: only 128µs carrier sensing time (5ms does not work)
Multitech Conduit Outdoor IP67 V2.1	61	5.3.31	5.1.0 + patch #1	• LBT: only 128µs carrier sensing time (5ms does not work)

1.2 Information about HAL patches

- #1: wrong GPS timestamp calculated:
  - Issue fixed into Semtech HAL (patch of HAL source).
  - Patch shared with Semtech and agreed, not yet included into a new Semtech HAL release
- #2: do not reset FPGA when connecting (caused downlink to be stopped after a spectral scan analysis)
  - Know issue at Semtech (https://github.com/Lora-net/lora_gateway/pull/113), not fixed in an official release,
  - Fix integrated in Actility delivery

Version 4.1.3_1 is patched over 4.1.3 to allow FPGA v35.

2 NEW FEATURES

2.1 Version 2.6.72 (from 2.6.36)

2.1.1 Support of a new firmware version

This version introduces the support of 5.3.31 firmware version:

- Fix cellular connection in the US following AT&T 3G Sunset.
- Support for new hardware revision of Multitech Conduit Refresh V1.5 and Multitech Conduit Outdoor IP67 V1.5

2.1.2 Automatic AES-keys generation on v2.1 gateways

- PT-1733: Automatically compute AES keys during installation

3 BUG FIXES

3.1 Version 2.6.72 (from 2.6.36)

- RDTP-17388: openssh command no longer tries to download autorevssh.txt file
- PT-2085: Fix suplog gateway IP display when ethernet is not the active interface
- PT-2083: vpn will fail to connect if ppp default route is set with no scope
- PT-2078: configurable autoreboot check periodicity with 60s value
- PT-2070: Fix failover with static ethernet rescue interface
- PT-2064: Fix auto-restore stopping all services when no backup is available
- PT-2062: Fix systematic rescue restart on failover startup
- PT-2002: Add system log when exporting configuration and logs
- PT-1970: Gateway manager shall not wait for cellular interface when it is not activated
- PT-1969: Gateway manager shall not call reconfig_ppp twice
- PT-1922: Fix special characters support in download/upload credentials
- PT-1918: NFR920 migration fix when ipsec.conf is empty
- PT-1914: NFR920 update default NTP minpoll/maxpoll to 6/10
- PT-1900: allow hyphen in cellular APN and username
- PT-1895: checkvpn2: fix route table 220 check
- PT-1886: checkvpn2: Fix ipsec restart
- PT-1885: checkvpn2 failed to download IPSec certificate when USE_IDENTITY=0
- PT-1872: ipfailover2: Fix default route of principal interface on service launch
- PT-1846: checkvpn2 does not check anymore for missing parameters which are not used by current USE_IDENTITY mode
- PT-1836: Use a different function to estimate utc time in case of class B dl. This must resolve some A2 cause problems in class B dl cases
- PT-1836: Don't loose last PPS when switching mode of lgw_get_trigcnt
- PT-1821: Add checkntp service

- PT-1772: Improved pppd redial
- PT-1768: Fix downlink set as class B and class C simultaneously
- PT-1668: Fix 100% CPU usage displayed after 497+ days uptime
- PT-1224: Downlink error if power is too low (v2.1 only)

4 KNOWN ISSUES

- PT-1383: LRR lost connection to LRC with message "error write FrameI on RTU (root cause unknown). Requires a restart of the LRR process.
- PT-1582: metrics can show a constant high CPU usage. No impact on LRR capabilities detected so far.
- PT-1599: "Listen-before-talk" (LBT) cannot detect collision with carrier sensing time set to 5ms. Use 128µs when possible.

ABOUT ACTILITY

Actility is an industry leader in LPWAN (Low Power Wide Area) large scale infrastructure with ThingPark™, the new generation standard-based M2M communication platform. Actility's ThingPark Wireless™ network provides long-range coverage for low-power sensors used in SmartCity, SmartBuilding and SmartFactory applications. Actility also provides the ThingPark X which provides big data storage for sensor data and exposes sensor function through an open API allowing developers to provide vertical applications on top of rolled out sensors. To help vendors transform their sensors, Actility provides the ThingPark IoT platform which include embedded software solutions and cloud solutions to help devices connect to innovative applications. Via the ThingPark Market, an online marketplace engine dedicated to the IoT sensors, applications and network solutions, Actility enables the roll-out of new innovative IoT services for sensor vendors and network solution vendors. Actility is a founding member of the LoRa Alliance™: the largest, most powerful standards-based effort to enable the Internet of Things (IoT). Visit www.actility.com.

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