



Firmware Release Notes

Cisco Ultra Reliable Wireless Backhaul (formerly Fluidmesh) FM1200 Volo, FM3200-series and FM4200-series radios

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Applicability

These firmware release notes are applicable to FM1200 Volo, FM3200-series and FM4200-series radios only. (Note that these radios were formerly sold as the Fluidmesh 1200 VOLO, 3200 BASE, 3200 ENDO, 4200 FIBER and 4200 MOBI.)

This document contains important change information regarding the following device firmware versions:

- 7.5.1 (FM1200 Volo, serial numbers below 120020x only)
- 7.7.1 (FM1200 Volo, serial number 120020x and greater only)
- 8.4.1 (all FM3200 Base and FM4200-series radios)

Firmware changelog

The following device-specific changes were introduced:

- **FM-QUADRO** (second release). This includes the following new features:
 - The FM-QUADRO user interface no longer needs Adobe Flash Player or Apache Flex to function.
 - FMQuadro 1.0 and Fluidity Quadro were previously two separate tools that needed users to toggle between them to effectively manage stationary and Fluidity networks. In contrast, FM-QUADRO 2.0 combines the functionality of both tools into a simpler, easier-to-use interface.
 - Operation of all aspects of the FM-QUADRO functionality has been streamlined and made more intuitive.
 - Visual cues have been incorporated that allow users to immediately distinguish between wired and wireless links and between stationary and mobile radios, and to immediately interpret the functional status of all components in the network cluster.
 - The user is only ever two clicks away from all functional information regarding individual radios and radio links.
 - The FM-QUADRO 2.0 view is completely customizable, and radio link information can be shown or suppressed as needed.
 - A representation file of the current network layout can be exported, allowing Fluidmesh Technical Support to visualize the network for troubleshooting purposes.
- **Telemetry:** A new telemetry protocol has been introduced, featuring support for FM-QUADRO 2.0.
- **Fluidity:**
 - An access-point coloring feature has been introduced to distinguish between Fluidmesh APs installed on different train tracks, in open sections of railway.

Bug fix changelog

- A pole-proximity safe MCS feature has been added.
- A combined pole-proximity protocol has been added. This combines the established pole-ban functionality with LER detection: if a current pole to which it is possible to connect has been banned, and the LER at the currently connected pole is too high, the banned pole is unbanned, and the safe-mcs parameter is set to allow pole proximity.
- A pole-proximity dynamic duration feature has been added, allowing radios to automatically estimate pole ban durations.
- The Webserver functionality has been updated with support for FM-QUADRO 2.0 and various security fixes.

Bug fix changelog

The following bug fixes were introduced for firmware version 7.5.1:

- **QoS:** Traffic shaper fixes
- **FMQuadro:** Graphical fixes
- **RADIUS:** Time sync fix with some operating modes
- **FluidMAX:** Fixed a bug that caused the radio to enter FluidMAX under certain circumstances even when FluidMAX was disabled.
- **VLAN:** Fixed a bug in bridge mode that prevented tagged VLAN to be properly forwarded
- **CLI:** Fixed several commands (e.g. l2tp, FLUIDITY, MPLS)
- **SNMP fixes:**
 - Fixed a bug getting incorrect wireless statistics when radio is in bridge mode
 - Fixed a bug sending incorrect periodic traps in bridge mode
- **TITAN fixes:**
 - Fixed the on-board failover when the vehicle includes more than two mobile units
 - Fixed a problem when LNOs were enabled on mesh-end units
- **STP:** Fixed snooping with STP and RSTP protocol variants

The following bug fixes were introduced for firmware version 8.4.1:

- A potential memory leak involving packet fragmentation was fixed.
- A bug was fixed whereby Native VLAN tags were not preserved across the wireless network if radios are in Bridge Mode.

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