MiWi™ MESH Version 2.10 Release Notes

The MiWi™ MESH stack is released with sample applications to demonstrate various stack features including its extended range via mesh networking, self-healing and new paths calculations, sleeping end devices, and a node's mobility within a network.

What's new in MiWi MESH version 2.10

- The MiWi-MESH stack is now being released in a Library format. Previous versions were 100% source code. Starting with version 2.10, the Application and MiMAC layers will remain in source code format, but the stack layer will be in the form of an easier to maintain library.
- The MIWi-PRO stack has been depreciated. PRO and MESH has been combined into a singular MESH stack.
- The MiApp API layer has been enhanced to accommodate new stack features. There are 5 new MiApp API functions.
- New features added:
    1. Dynamic switching of the roles a node may realize in a network. A MiWi MESH node may switch from an End Device to a Sleeping End Device without recompiling the code.
    2. MiWi MESH nodes may be mobile within the network. The stack automatically handles the switching of a mobile node, from one parent to the next without any intervention required from the user application.
    3. Support for over a 100 hops.
    4. Additional MiApp API's have been added to monitor and control the wireless node.
- The self-healing feature of the MESH network has been significantly improved.
- The routing algorithm has been improved to allow faster path calculations, and more stable and consistent device-to-device communications.
- Support for version 1.38 and above of the XC8 compiler.
- Support for version 1.26 and above of the XC16 compiler.
- The Frequency Hopping feature has been depreciated.
- The Network Freezer feature has been depreciated.
- Support for the MRF49XA has been depreciated, due to the device been EOL.

Hardware Supported

Microcontrollers: 8 bit and 16 bit PIC microcontrollers.
Transceivers:

- MRF24J40 2.4 GHz transceiver.
- MRF89XA Sub GHz transceiver.

Notes:

Beginning with version 2.10 of the MiWi MESH stack, Microchip has begun partnering with one of its design partners – Viper-Design, to design, implement and share in the support responsibilities of the MIWI=MESH stack. Customers are encouraged to first contact their local Microchip Field Application support personnel if they have any questions regarding the MiWi stacks.