Mira - The complete solution for your Internet of Things

Mira™

Mira is a platform for creating self-healing multi-hop networked systems utilizing the world wide license-free 2.4GHz ISM band. Mira builds upon LumenRadio's patented technologies for Cognitive Coexistence, enabling deployment even in highly congested wireless environments.
Cognitive Coexistence enable Mira networks to operate alongside other wireless networks in the same frequency range. Wireless environments change all the time; walls are built, trucks or buses can block the line-of-sight outdoors, etc. Mira networks are self-organizing and self-healing, meaning that the network data finds its way through the network over multiple radio hops if necessary - and the traffic will automatically get re-routed if a communication path gets blocked. Mira networks even utilize multi-path redundancy, allowing traffic to propagate towards its target using several different routes at the same time.

Mira networks can scale up to several thousands of nodes. Mira networks are easy to set up thanks to LumenRadio's commissioning feature that allows for both network setup as well as user application setup.

MiraOS™

MiraOS is the foundation of the Mira platform and includes the entire communication stack. While it incorporates advanced technologies like Cognitive Coexistence, 6LoWPAN, etc., it's still extremely easy to use when developing your applications. MiraOS exposes a developer-friendly API and deals with all the advanced logic in the background. MiraOS is multi-tasking allowing applications to use multiple threads to simplify application development. MiraOS also comes with a full hardware abstraction layer (HAL) that lets the developer write generic easy to read software without the hassle of writing code for handling the hardware.

MiraOne™

The MiraOne radio module is easy to integrate into your next product. MiraOne features a powerful 32bit ARM Cortex-M3 micro controller that can host your MiraOS based application for lowered BOM costs, or interface an external processor via a serial interface. Solderable as a SMT assembly, MiraOne is aimed to meet the cost requirements for high volume production, but still allow for low volume production and easy prototyping.

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