

MeshScape® GO

MeshScape® GO is Millennial Net's pre-configured application ready wireless sensor networking system designed to be deployed right out of the box. MeshScape GO uses an extremely efficient networking protocol to achieve the highest performance in reliability, power efficiency, scalability, and responsiveness.

MeshScape GO Features

MeshScape GO is an optimized industrial-class wireless mesh network that provides more robust interference resistance, higher scalability in real world environments, and lower power operation:

- **Low Latency** capability reduces the end-to-end packet delivery time to below seconds within a multi-hop environment.
- **Highly Flexible Addressing** eases installation and commissioning for large and complex networks.
- **Patented Persistent Dynamic Routing (PDR)** routing techniques form a self-configuring, wireless mesh network. PDR uses a node-initiated network formation to enable efficient topology discovery and facilitates network re-formation by applying "best route" information.
- **Supports Various Interface Protocols** including industry standards such as Modbus RTU, Modbus TCP/IP and BACnet IP.

MeshScape GO Modules

- **MeshGate:** MeshGate, the MeshScape gateway, aggregates data from the network, configures network parameters, enables network features, and acts as a portal to monitor network performance.
- **End nodes:** End nodes integrate with sensors and actuators to capture data in star and hybrid star-mesh configurations for continuous battery operation up to 5 years*.
- **Mesh nodes:** Mesh nodes extend network area coverage, transmit around obstacles, and provide backup routes in case of network congestion or device failure. Mesh nodes can also integrate directly with sensors and actuators in full-mesh and hybrid star-mesh configurations.

MeshScape GO Specifications

Parameter	Value	Notes
Operating frequency range	2405 ~ 2475 MHz	ISM band
Number of available channels	15	IEEE 802.15.4 channels 11 ~ 25
Channel spacing	5 MHz	
Maximum RF transmit power	18 dBm	
Receiver sensitivity	-95 dBm	At 10 ⁻⁵ bit error rate
RF data transmission rate	250 Kbits/sec	
Channel agility	Yes	Automatically realigns RF channel when network (MeshGate) switches to a new channel.
Routing Technology	Persistent Dynamic Routing	
Hardware Platform	CC2430	

Try It for Yourself

Setting up a wireless sensor network is fast and easy with the MeshScape GO Reference Kit. You can prototype your application in a matter of hours. To order a Reference Kit or to learn more about our products and services, please contact us at (978) 569-1925 or e-mail us at info@millennialnet.com

* Actual battery life depends on the device type, radio communication and sensor sampling intervals, radio power, network coverage and other factors.

