

**Unite the
Internet of Things**



MeshWorksTM

ARMED WITH THE



SCRIPTTM
NINJA



Get Unwired. Wireless Development Just Got **Faster & Easier.**



- Built-In Sensor Capabilities**
- Temperature Sensor
 - Humidity Sensor
 - Light Sensor
 - Asset Movement
 - Reed/Switch Open/Close
 - Rotation Detection
 - Drop/Shock Detection
 - Compass Orientation
 - Proximity Sensor
 - I/O Sensor Expansion Port

Get Started Today. Nearly **2 Billion** Connected Devices Have Been Deployed.

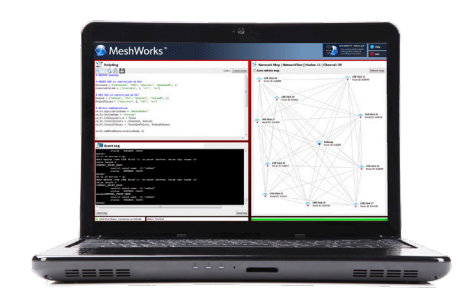
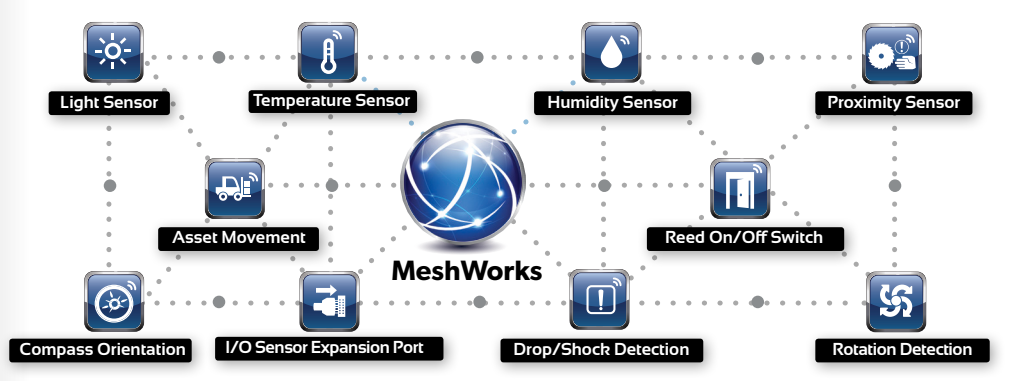


8 Billion Devices Will be Connected to the Internet of Things By the Year 2020.
Are you ready?

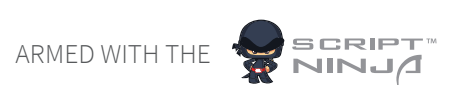
What is MeshWorks?

MeshWorks™ is a turnkey wireless solution for fast development and implementation of a wireless sensor or control network. With MeshWorks, you can easily customize your network and get it up and running to the cloud in mere hours.

NETWORK VIRTUALLY ANY SENSOR TYPE OR CONTROL NODE



COMBINE THEM INTO A ROBUST SELF-HEALING MESH NETWORK USING THE MESHWORKS SUITE



CONNECT THE ENTIRE NETWORK TO THE CLOUD

- Sensor Monitoring
- Remote Node Control
- Data Visualization & Analytics
- Real-Time Locating Services (RTLS)



MeshBenefits

- 1 Powerful & Robust Self-Healing Mesh Networks**
- 2 Exceptionally Easy to Implement Software**
- 3 Get Up & Running with Prototypes in Mere Hours vs. Months**
- 4 Get to Production Quickly Using CEL's Wireless Solutions**
- 5 Easily Connect to the Cloud**
- 6 Implement State-of-the-Art Monitoring & Control**

MeshFeatures

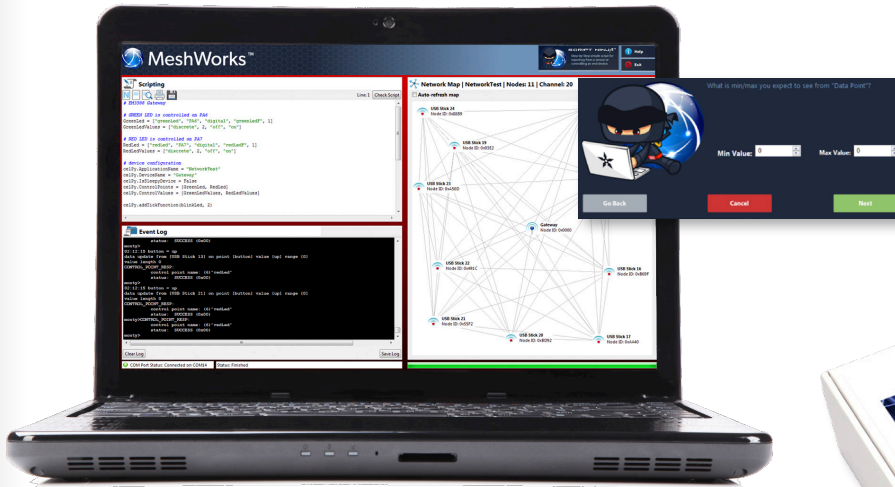
- A mesh network automatically implements redundancy to ensure connectivity despite challenging RF propagation environments.
- Uses proven, industry-leading 802.15.4 EmberZNet PRO™ Stack from Silicon Labs (deployed in millions of residential and commercial installations).
- Supports state-of-the-art secure encryption.
- No experience writing in C or using a compiler required.
- No need to be fluent in complex mesh networking protocols like ZigBee or Z-Wave.
- Utilizes simple Python-based coding, augmented by the MeshWorks ScriptNinja™ tool for step-by-step script generation.
- Use the 10 built-in sensor capabilities of the MeshWorks OpenTether Sensor Node to quickly test concepts.
- The Sensor Node also contains a built-in I/O expansion port to connect to any external sensor or control node using I2C, analog or digital I/O.
- Utilize CEL's reference designs to add wireless connectivity to your custom solution. Simply combine your sensor or control circuitry with CEL's EM35x wireless family.
- Modules are 100% RF tested and pre-certified for FCC, IC and CE Compliance.
- Future-proof firmware with Over-the-Air (OTA) capabilities.
- Access the cloud via off-the-shelf Cellular, WiFi and Ethernet gateway offerings.
- Exosite cloud service included in the Development Kit as a reference design.
- Utilize customized skins and widgets from Exosite to quickly visualize your data and set up automatic notifications.
- RTLS Technology from Buzby Works runs as a supplement on top of the MeshWorks code to enable location tracking.
- Easily compile sensor & control data for powerful analytics.

Markets Served

- TANK MONITORING
- BUILDING AUTOMATION / HVAC
- LIGHTING CONTROLS
- ENVIRONMENTAL SENSING
- INDUSTRIAL CONTROL
- ASSET TRACKING / RTLS
- AGRICULTURE
- INTELLIGENT WATER MANAGEMENT SYSTEMS
- SOLAR / SMART ENERGY
- HOME AUTOMATION
- HEALTHCARE
- RAILWAY MONITORING
- HEAVY MACHINERY
- FOOD & BEVERAGE PROCESSING

HOW TO GET STARTED

OBTAIN A MESHWORKS DEVELOPMENT KIT



ScriptNinja™ is the Simple Built-in Step-By-Step Script Generator Tool



x1 MeshWorks Software Suite

(Laptop not included in kit)



x2 OpenTether Sensor Nodes



x1 Ethernet Gateway

Or



x1 Cellular Gateway

Development Kit	Part Number
Cellular Gateway	ZMW-KIT-CELL-1
Ethernet Gateway	ZMW-KIT-ETH-1



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**VISIT TECH SUPPORT
 FOR MORE INFORMATION**
www.cel.com/MeshWorks

