Bluetooth® | mesh networking

what is mesh?

Bluetooth® mesh networking enables many-to-many (m:m) device communications and is ideally suited for creating IoT solutions where tens, hundreds, or thousands of devices need to reliably and securely communicate with one another.

It brings the proven, global interoperability and mature, trusted ecosystem associated with Bluetooth technology to the creation of industrial-grade device networks.

where is Bluetooth mesh networking being used?

control systems

Bluetooth mesh is quickly being adopted as the wireless communications platform of choice in a number of control systems, including lighting control for the smart building and smart industry markets.
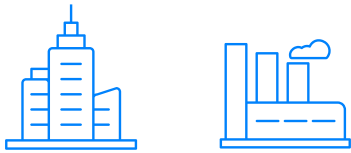
monitoring systems

Bluetooth wireless sensor networks are monitoring lighting, temperature, humidity, and occupancy to improve employee productivity, lower building operating costs or reduce unplanned downtime of production equipment.

automation systems

Bluetooth mesh enables the automatic control of a building's essential systems, including lighting and heating, ventilation and air conditioning to harness energy savings and lower operating costs.

industrial-grade solution

Bluetooth mesh uniquely meets the reliability, scalability and security requirements of building and factory automation markets that demand true industrial-grade solutions.

- **Reliability:** Enables self healing networks with no single points of failure
- **Scalability:** Supports thousands of nodes with industrial-level messaging performance
- **Security:** Provides industrial-grade security for protection against all known attacks

proven, global interoperability

Only Bluetooth mesh delivers the proven multi-vendor interoperability that enables markets to flourish and assures that products from different vendors across the globe work together.

- **A full-stack solution:** A unique full-stack approach that defines everything from the low-level radio to the high-level application layer, ensuring all levels of the technology are fully specified
- **An interop-centric spec:** Comprehensive interoperability testing conducted prior to specification release, not after
- **Time-tested tools and processes:** A 20-year history of delivering the qualification tools and processes necessary to ensure global, multi-vendor interoperability

mature, trusted technology

The value-added capabilities, mature ecosystem, and global brand awareness that Bluetooth wireless technology provides enable the creation of much richer solutions with a faster time to market.

- **Location services:** A mesh network built on Bluetooth can also provide localized information, asset tracking, wayfinding, and space utilization services
- **A mature ecosystem:** The best enabling technology, along with the development and test tools and services needed to shrink your time to market
- **Global brand awareness:** A trusted global brand that stands for simple, secure wireless connectivity

To learn more or download the spec, please visit Bluetooth.com/mesh