

RAJANT KINETIC MESH®

Rajant: Powering Precision Farming of the Future

Rajant Kinetic Mesh networks are uniquely equipped to handle the complexities of today's evolving farming operations. Are you facing connectivity gaps with your LTE or Wi-Fi network? Rajant has a solution. **We make LTE and Wi-Fi better.** The technology behind our **Kinetic Mesh** powers a "living" mesh solution that moves and evolves to meet today's and tomorrow's connectivity demands. **Rajant** provides seamless broadband that scales to your farming needs. Whether stand-alone or hybrid network, the multi-radio distributed intelligence of **Rajant BreadCrumbs®** allow for precision planting, field mapping, and harvesting to maximize every available inch of fertile land.

Rajant has solutions with zero infrastructure and costly ongoing management to communicate with any Wi-Fi, LTE, or ethernet-connected device to deliver real-time, low-latency, high-throughput data, voice, and video applications. **Rajant Kinetic Mesh** can load balance traffic detected congestion and dynamically adapting to changes in topography. It is the only wireless network that can meet the connectivity challenges of precision agriculture and autonomous farm equipment.

Kinetic Mesh: Powering Faster, More Agile Autonomous Farming Equipment

Unlike traditional networks, Rajant BreadCrumbs communicate peer-to-peer via multiple and simultaneous connections. This node- and frequency-level redundancy forms resilient mobile connectivity for farms.

Once tractors, fleets, UGVs, soil sensors, and more are connected to Rajant's peer-to-peer network via BreadCrumb nodes, they form an autonomous Industrial Internet of Things (IIoT) environment. BreadCrumb nodes go wherever your farming assets do, seamlessly connecting hot zones to provide ubiquitous coverage over vast acreage.

Maintain the Range & Mobility You Require, Even in Hard-to-Network Areas

Outdoor agricultural environments span vast acreage with natural obstructions that can block wireless signals. Ideally, the network must maintain multiple simultaneous connections for inherent redundancy and to mitigate signal blockage and interference as assets move across the farm. A Kinetic Mesh network can autonomously balance traffic, mitigate interference by routing around obstacles, and dynamically react to topography changes to provide continuous connectivity without fail. Rajant technology increases productivity and prevents costly downtime.

Support Machine-to-Machine (M2M) Communications Between Farming Equipment

Rajant helps agricultural operations leverage autonomous machinery and robots with a network that enables machine-to-machine communications and extends connectivity everywhere equipment goes. Rajant BreadCrumb nodes communicate peer-to-peer via multiple, simultaneous connections, and this node- and frequency-level redundancy forms resilient 'never-break' mobile connectivity for farms.

Once a farm's tractors, fleets, UGVs, soil sensors, and more are connected to Rajant's peer-to-peer network via BreadCrumbs, they form an autonomous IIoT environment. The on-equipment nodes go wherever farming assets do, seamlessly connecting hot zones to provide ubiquitous coverage over vast acreage and allowing machinery to communicate with each other on the move.



Real ROI for **Agricultural Operations**

Rajant Kinetic Mesh for agriculture can support precision farming applications by moving with farm operations.

- **Enhance Productivity:** Maximize all farming assets' performance and functional life and decrease downtime due to signal blockage.
- **Improve Yield:** Automate precision planting, field mapping, and harvesting to maximize every available inch of fertile land.
- **Increase Revenue:** Invest in automated farming equipment and an IIoT-enabled network to save money on labor costs and bring more crops to market.
- **Enable Responsible & Sustainable Farming:** Lessen the harmful effects of climate shifts by maximizing existing field space, monitoring soil balance, and creating efficient irrigation systems.

Rajant Offers a Variety of Products for **Your Specific Application Demands**



Cardinal



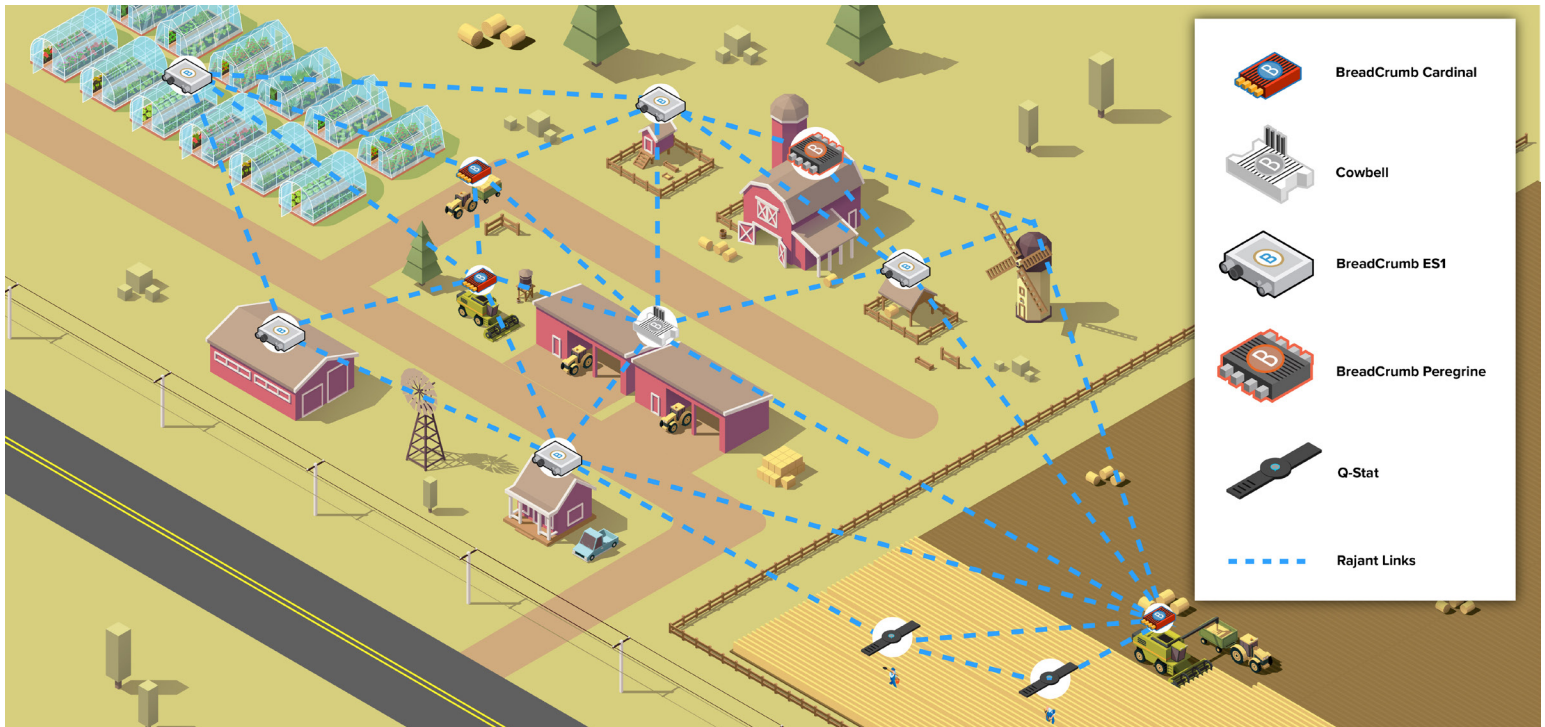
Sparrow



Hawk

The #1 Choice - **Fully Mobile, Always Adaptable**

Rajant Kinetic Mesh networks work autonomously to provide optimal connectivity across agricultural fixed and mobile assets, delivering robust applications in real time. They feature total mobility, proven resiliency, rapid scalability, extreme ruggedness and security, and maximum bandwidth utilization.



Get the edge over other fault-tolerant networking options.

Discover how Rajant can help you stay connected—no matter how your team operates. Our technology means **Reliability, Redundancy, and Resiliency**. Learn more about Rajant's one-of-a-kind technology at www.rajant.com



www.winn-marion.com

A Rajant partner since 2019, Winn-Marion customers can leverage the power of real-time data to deliver on-demand, mission-critical business intelligence.

