



RAJANT



# RAJANT Case Study

ES1 BREADCRUMB DESIGN



# Partnership

- Rajant Corporation, a broadband communications technology company that invented patented Kinetic Mesh<sup>®</sup> networking, BreadCrumb<sup>®</sup> wireless nodes, and InstaMesh<sup>®</sup> networking software, partnered with Vizmonet for the development of wireless networking hardware components and systems
- Vizmonet was entrusted with custom ES1 hardware design, development, and life-cycle management based on Rajant's requirements.



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Kinetic Mesh<sup>®</sup> networking, BreadCrumb<sup>®</sup>, and InstaMesh<sup>®</sup> are registered trademarks of Rajant Corporation



## Product Requirements



# Collaborative Design

- Vizmonet led the hardware design effort, including circuit design and packaging, while continuously incorporating Rajant's feedback from testing and validation..
- Rajant took the lead in software design and development, as well as the system integration of the ES1 hardware, software and accessories.
- Vizmonet acted as a satellite R&D center for Rajant and worked closely with Rajant to manage the complete product lifecycle.
- Vizmonet team worked very closely with Rajant development team during product design, characterization and validation phases, continuously improvising the design to meet the demanding and stringent Rajant Quality requirements.
- Vizmonet team worked with regulatory Labs to get the product approved for FCC/IC/CE and other geography specific homologation.

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# Solution

- Award winning ES1 Breadcrumb family
- The ES1-2450IS, which is based on the ES1, has been developed for deployments in Hazardous Locations governed by IECEx/ATEX1(EU) and C1D1 (North America)
- Diverse frequency combinations
- Operating frequency combinations covering 2.4 GHz, 4.9 GHz, UNII-B1,B2A,B2C & B3 Bands
- Multiple derivatives for OEM integration
- -40 deg C to +85 deg C internal system (operating) temperature
- IEC60068-2-64 Vibration Resilience
- 24x7x365 High Availability
- FCC/IC/CE Regulatory Approvals.

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# End Results

- Vizmonet' Partnership adds value to OEM customers' offerings
- ES1 Breadcrumbs gained great traction and acceptance across various industry verticals
- It has helped Rajant to expand into new markets
- The project was a great success for Rajant and their customers
- As of now, thousands of Es1 Breadcrumbs have been manufactured, shipped and deployed successfully across the globe.

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# Why Vizmonet?



## WIRELESS DESIGN EXPERTISE

- With over 90 years of combined Wireless product development experience and in-depth understanding of wireless eco-system
- Continuous Innovation



## ZERO-DEFECT QUALITY POLICY

- We aspire to achieve zero-defect as part of our Quality commitment.
- Continuous Process improvements by leveraging on home-grown Test, Process and Operation Automation Tools



## BRAND PROMISE

- VIZMONET as a brand helps your brand grow.
- Business well knitted with Integrity as the core Value
- Our products are complimentary to Customers and not competing in the same market space.

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# Thank you

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