

# Distribution Automation (DA) Solutions



## Applications Enabled by Deploying Distribution Automation:

- Volt/VAR Optimization
- Transformer Monitoring
- Fault Detection, Identification and Recovery (FDIR)
- Substation Automation
- SCADA
- Line Switch Automation
- Voltage Monitoring
- Substation Video Monitoring

## Reliability

- Remote monitoring and predictive maintenance
  - Reduction in the number and duration of outages
  - Reduction in the number of equipment failures
- Facilitated field repairs
- Improved customer satisfaction

## Efficiency

- Enhanced utilization of generation sources such as power flow control from central and distribution sources
- Reduced operations and maintenance (O&M) expenses
- Improves Forecasting

## Asset Utilization and Protection

- Grid load information for planning
- Optimized capital expenditure timing
- Improved safety

Enhance your distribution network with our Distribution Automation Solution

Distribution Automation brings enhancements to the distribution network which have historically functioned autonomously, responding to local signals and conditions without operations center involvement. DA applications can include remote monitoring and control of components in the substation (substation automation), components on feeders (feeder automation), and components at customer sites (meter automation). Each of these solutions provide a distinct element of managing the distribution grid and these applications help utilities improve operational efficiency, system reliability and asset utilization.

Trilliant's SecureMesh® WAN was designed to provide a cost-effective broadband networking solution to enable communications throughout the entire distribution grid. Through a patented wireless mesh system, the standards-based SecureMesh WAN can connect grid devices with high capacity and low latency links, offering Smart Grid solutions that support both AMI backhaul as well as distribution networking.

## EXPERIENCE YOU CAN COUNT ON

The next generation of smart grid and smart cities solutions must be built on an open and secure network that allows frictionless exchange of data and we believe that our architecture will propel the energy industry to a bright future with an integrated solution that is flexible, standards based, scalable and connected. Our advanced technologies, designed to work with virtually any system, provide a secure, powerful source of connectivity and data now and for generations to come.

At Trilliant, we make our customers future-ready through innovative software and communications solutions.

**WE EMPOWER YOU - BY CONNECTING THE WORLD OF THINGS®**





## TECHNOLOGY AT A GLANCE

As the industry continues the aggressive growth trajectory to a brighter future, we are here to help you manage your communications needs. We work with you to understand your challenges and deliver solutions that meet your needs for today and tomorrow.

### Analytics

- Our UnitySuite Business Intelligence platform provides you a fully customizable software suite that provides a single pane viewing of your data, your way.

### Advanced Metering Infrastructure

- We provide the most adaptive and flexible Advanced Meter Infrastructure solution that delivers the functions and data needed to meet your specific vision for today and tomorrow.

### Demand Response

- Our demand response implementations enable utilities to lower peak demand allowing utilities to postpone capital investments in generation capacity and reduce the need to purchase energy at peak prices.

Our networking technology, software, services, and unique partner ecosystem unlock the potential for you to make a better life for your customers through instantaneous information. We believe that you are the custodians of critical information and will not constrain how you use your data today or in the future.

Our SecureMesh® platform, developed specifically for smart grid applications, is a secure, multi-tier NAN/WAN communications platform, per-engineered to work seamlessly together. Featuring high bandwidth and low latency, this solution provides highly reliable, future-proof, superior performance necessary to support smart grid applications – distribution automation, smart metering, demand side management – all on one powerful platform.

- **Cellular:** Our communications hub solution is a communications platform that connects to the Trilliant UnitySuite® Head-End Software (HES) using public wireless networks to create a secure communications link to electric and gas meters. When deployed with in-home displays and other in-home energy management products, this hub creates the consumer engagement side of a smart meter deployment.
- **SecureMesh® Narrow Area Network:** Our SecureMesh NAN is a standards-based, high-bandwidth wireless AMI technology that provides you a secure, scalable solution. Featuring adaptive mesh technology, the meters autonomously report to the NAN access point and then polled by the head end system, via the WAN, which enables scalability. We chose a standard 2.4 GHz radio as the core to ensure you have both the protection of a standards-based solution with the operational benefits of a high-data rate solution.
- **SecureMesh® Wide Area Network:** Our SecureMesh WAN is a broadband mesh network built specifically for the Industrial Internet of Things (IIoT) that provides reliability, bandwidth and low latency necessary for advanced applications such as street lights, video surveillance, AMI, and smart city deployments. SecureMesh WAN is based on standard 802.11 chipset that provides high-bandwidth wireless IIoT technology featuring adaptive mesh technology.
- **Trilliant RPMA®:** Our Random Phase Multiple Access solution is designed from the ground up as a low data rate / high capacity network that provides you deep, wide area coverage. Featuring Star based network topology, this private network offers point-to-multipoint technology capable of supporting a true opt-in deployment strategy. The high network capacity is achieved through access point's ability to support up to 1200 simultaneous endpoint connections. Our solution offers extreme coverage and capacity while still providing the stringent security that you've come to expect with a Trilliant solution. Due to the extreme coverage, and capacity an RPMA solution has a low network planning and deployment cost, and a very low ongoing operational cost.
- **Software:** A secure management platform that acts as a control pane for all device interactions. It provides scalable management of multiple smart grid communications technologies with unified business process integration to other utility systems.



# Trilliant

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