Trilliant SecureMesh WAN/NAN

Communications on a smart grid infrastructure requires two-way network systems that can include millions of devices, all scattered over thousands of square miles. While some networks require real-time data communications, sometimes they don't, and others don't require it at all.

Trilliant provides network solutions that cover all aspects of an AMI system requirements:

- **Trilliant SecureMesh® Wide Area Network (WAN).** You get real-time communications with large numbers of devices across a large geographic area
- **Trilliant SecureMesh® Neighborhood Area Network (NAN).** Use it when device signals need rapid but not necessarily real-time processing

SecureMesh WAN

Our SecureMesh WAN supports the most demanding application requirements:

- Speed – Provides latency times between device to head end of less than 10 milliseconds
- Uninterrupted communications – Uses dynamic routing. Your data has multiple paths to its destination
- Security – Features a complete menu of industry security standards

The Trilliant SecureMesh WAN is an efficient communications network that covers large territories under a single system. And with SecureMesh, there's no need to change out any of your current meters. Our SecureMesh WAN (and all Trilliant communications systems) are device agnostic.

And integrating a SecureMesh WAN with a neighborhood are network (NAN) expands coverage exponentially.

Trilliant SecureMesh NAN

Trilliant SecureMesh NAN is designed for higher density AMI deployments and can provide high speed two-way communications. It's a self-healing communications network that adapts to the ever-changing urban landscape and growth of the network.

Both SecureMesh WAN and SecureMesh NAN provide an adaptive mesh networking configuration. If an endpoint loses connection with its neighbor, it will find alternative routes, a self-healing network that creates new routes autonomously.

Many types of utility device connections don't require real-time processing. So rather than routing all your device communications through a high-speed network, you can supplement your system with Trilliant SecureMesh Neighborhood Area Network (NAN).

The SecureMesh NAN uses a mesh network to gather data and communicate controls to AMI meters and other sensors on the distribution grid. SecureMesh endpoints utilize neighboring endpoints to reach collectors that are optimally located throughout the AMI deployment area. Another feature of SecureMesh NAN is the ability to adapt to different network conditions, increasing the range of the endpoints by adjusting the transmission rate.

SecureMesh WAN can be used to link the collectors to common backhaul takeout points, or each can be independently connected to any IP-based backhaul – cellular LTE, fiber, or any available networked system. The SecureMesh NAN also provides a lower cost with adaptive modulation. In response to different network conditions, you can reduce or increase the amount of data going through the NAN at any one time.

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SecureMesh WAN Gateway

Trilliant SecureMesh® Wide Area Network
Broadband solution with high bandwidth, low latency infrastructure. Low-cost backhaul capability for other network tiers and/or solution/technology providers.

SecureMesh® WAN

- Standards-based 5 GHz (IEEE 802.11n) 2x2 MIMO
- High Bandwidth
- 6 ms low-latency communications
- Up to 12 km Range
- IPv6-enabled
- GPS Synchronization
- VLAN & Quality-of-Service

SecureMesh WAN Connector

Questions, comments: info@trilliant.com