

SECURESMART™: A WIRELESS FIELD NETWORK MONITORING SOLUTION

Visibility for Security, Operations, and Security Troubleshooting

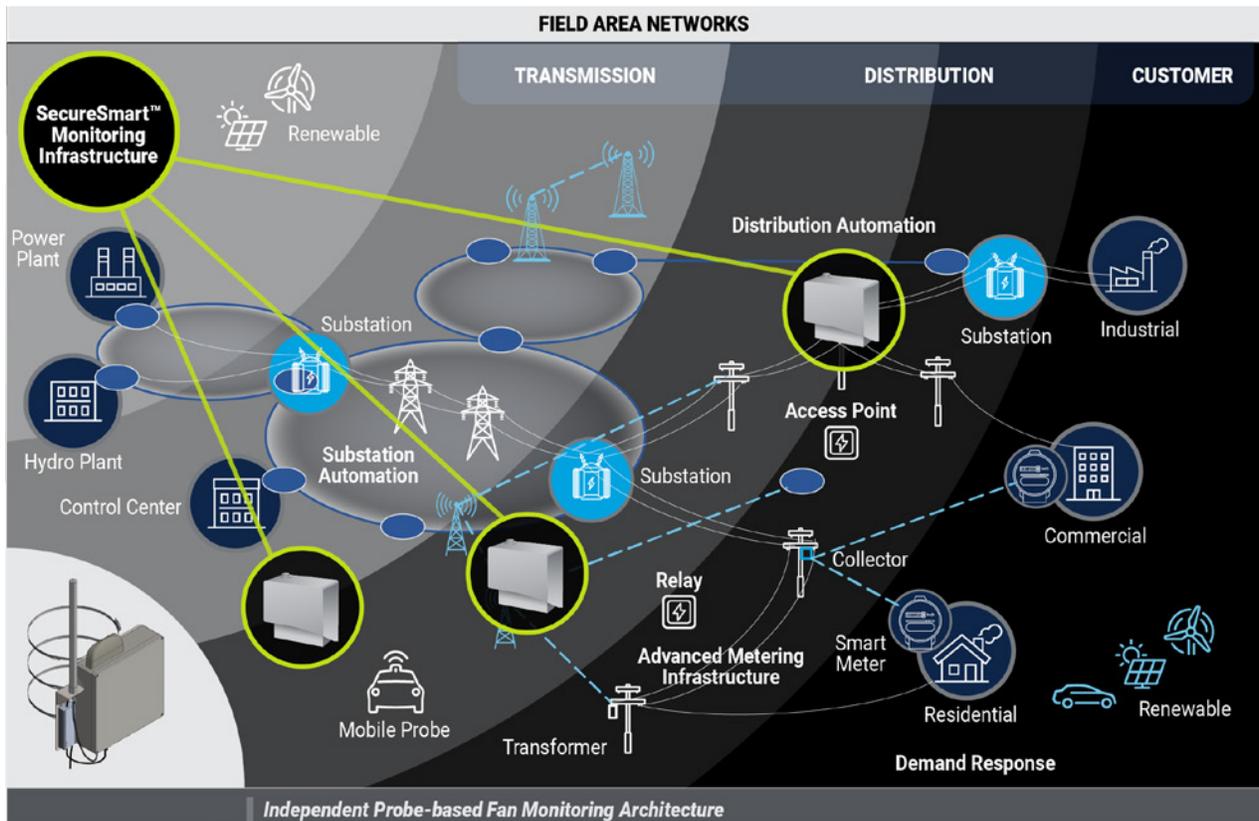
Utilities rely on Smart Grid wireless field networks to perform meter reading for electric, water and gas service, connect/disconnect operations, load management and to manage smart streetlights. These wireless field networks exist everywhere, operate 24-7, and have increasingly become a desirable cyber target as they present opportunities for hackers to steal information and disrupt or deny service using low-cost software defined radios.

Since more than 90% of all wireless field network traffic is invisible to traditional back-end monitoring operations systems, utilities need a smart way to detect threats and monitor network operations for service assurance.

SecureSmart™, an innovation from Peraton Labs, is an integrated cybersecurity, operations and engineering solution for advanced metering infrastructure (AMI) and Distribution Automation (DA).

SecureSmart uses a sparse network of patented wireless field sensors to passively capture and analyze over-the-air traffic. With Peraton Labs “follow-me” technology, SecureSmart monitors all channels simultaneously in multichannel, multi-data rate Smart Grid systems.

The sensors are strategically installed on utility poles, substations, buildings, and towers. GPS-enabled mobile sensors can be installed in fleet vehicles to provide added service territory coverage and create a mobile troubleshooting platform. SecureSmart sensors use a separate, secure, backhaul network to avoid consuming service network bandwidth or gateway resources. Sensor intercept range is effectively extended by the relaying behavior within mesh networks. SecureSmart sensors can be configured for full-or sampling operation.



The Peraton Labs' SecureSmart solution provides unique technology to monitor and protect utility applications by delivering threat detection, situational awareness, and network performance monitoring. SecureSmart defends meter-to-cash, from cyber intrusion, monitors the privacy of rate payer information, and supports network operations and system optimization to ensure reliable secure utility services.



SecureSmart is the industry leading AMI field network monitoring solution, providing real-time network health, anomaly detection, security analysis and visualization. SecureSmart delivers live field traffic and views of device interaction, real-time packet dissection starting at the radio level, ground-truth visibility and cybersecurity threat detection that enables infrastructure operators to answer critical questions such as:

- Is my smart infrastructure under attack or leaking sensitive information?
- Why are certain areas prone to meter read problems and poor performance?
- Is there a source of ground truth information to investigate distribution automation mis-operation events?
- Can my existing infrastructure support new applications or increased interval data reads?
- Can I manage my multi-service network to a performance standard?

Key SecureSmart benefits:

- Ground-truth network visibility using an easy-to-deploy, independent, sensor-based architecture
- Continuously validates wireless cybersecurity controls
- Monitors key service assurance metrics for multi-application smart grids
- Supports field network troubleshooting, performance monitoring and provides network buildout tools for service territory expansion

Key SecureSmart capabilities:

- Live traffic intercepts with decomposition from physical through application layers
- Deep packet inspection using custom threat detection models based on experience-driven findings and offensive systems security analysis of proprietary and standards-based protocols
- Real-time traffic profiling of key security, network, and service performance indicators for AMI and DA infrastructure
- Network analytics and visualization tools construct logical and GIS-based traffic routing maps

Across America, utilities are using SecureSmart as an operator-run licensed product or as a hosted service managed by Peraton Labs to defend metering and distribution automation services against cyberattacks, ensure the security of ratepayer information, keep advanced distribution operations running smoothly, and to troubleshoot and optimize field networks to support managed multi-service delivery.

SecureSmart. The smart way to assure reliable, secure utility services. Visit www.peratonlabs.com/market-energy.html or contact info@peratonlabs.com for more information.