

Trilliant Consumer-Engagement Solutions



Trilliant helps utilities and energy retailers successfully deploy a broad set of smart grid initiatives – from advanced metering to distribution automation to consumer applications such as demand response and distributed energy resources. The breadth and depth of the Trilliant Connected Energy Platform deliver the flexible and proven smart grid solutions needed for utilities and energy retailers to deploy mission-critical applications to achieve their business goals.

The innovative Trilliant Consumer-Engagement Solutions bring the industry together around a common solution that helps utilities and consumers realize the tremendous benefits of the Smart Grid.

The solution consists of a purpose-built communications platform that connects the Trilliant UnitySuite™ Demand Side Management Head-End Software (HES) Application to consumer-owned home area networks using a private wireless neighborhood area network.

Trilliant has also created an ecosystem of home area network partners to complement the Trilliant Consumer-Engagement Solutions. The group of partners provides a spectrum of smarter energy in-home devices ranging from energy displays to energy management devices and smart appliances. This group focuses on system-level interoperable solutions for energy providers globally to provide consumers the freedom of choice in deciding how they manage their energy use. Together, Trilliant and this ecosystem of partners are creating a seamless smarter energy system for utilities.

Proven Solutions for a Secure, Safe, Low-Carbon and Affordable Energy System

The Trilliant Consumer-Engagement Solutions can be deployed along with in-home displays, energy management devices, and smart appliances to create the consumer engagement side of a smart meter deployment. The solution excels at delivering relevant information in a timely manner to allow consumers to make better informed decisions about their energy usage. This solution is purpose-built to support consumer programs designed for “prices-to-devices” and “energy awareness.”

High return on investments. Leveraging proven systems that are standards-based, future-proof, and very reliable, based on decades-long energy communications and networking expertise.

Easy to deploy, flexible, enhanced deployment. Utilizes standards-based business processes for deployment. Enables over-the-air configuration and upgrades to

Proven Solutions

- Proven, purpose-built, private wireless RF-Mesh communications for high-reliability neighborhood area network connectivity
- Industry standard communication protocols
- Scalable platform and technology

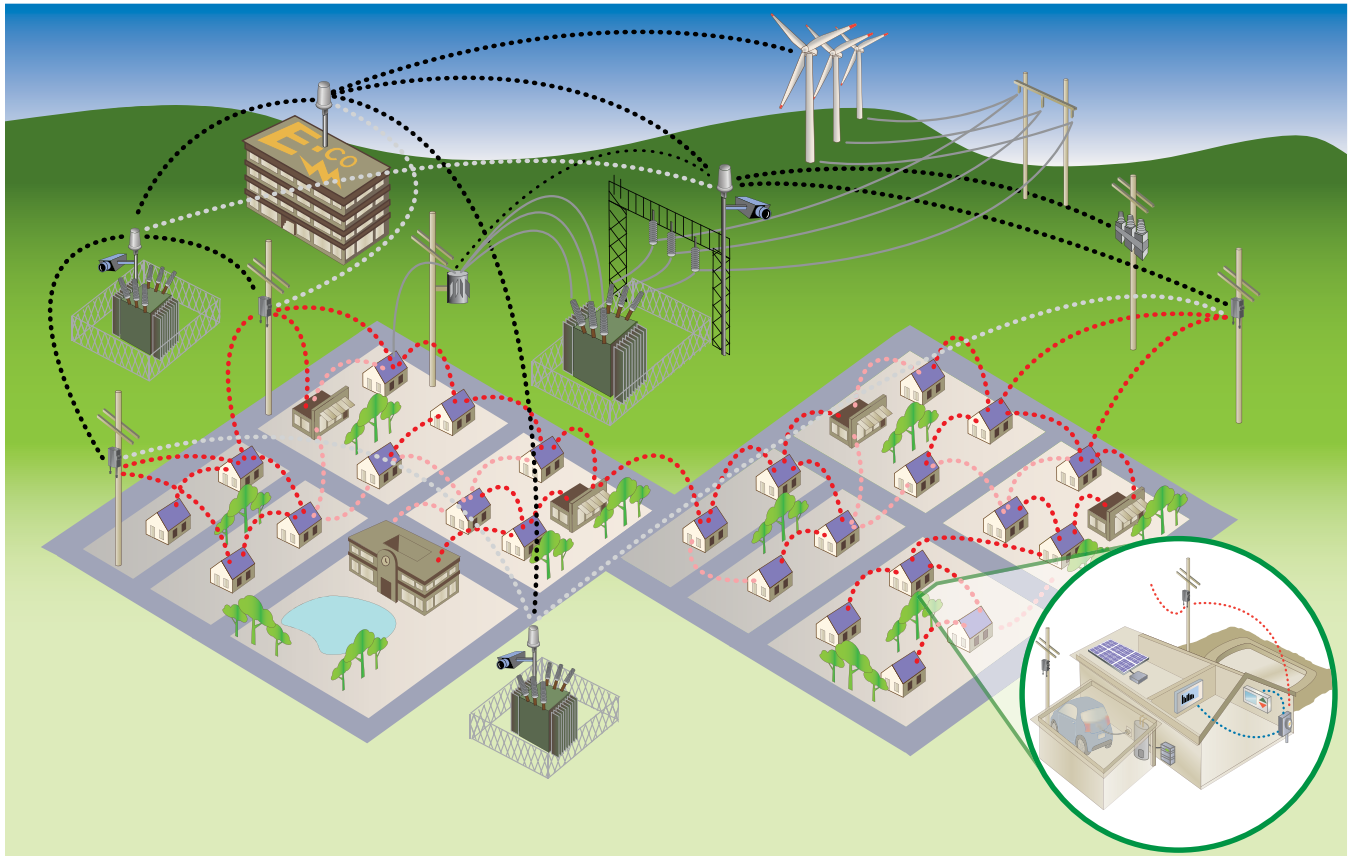
Consumer Program Focused

- Relevant, timely information to empower consumers to make smarter decisions about energy use
- Privacy-preserving features built-in
- Offers value-added benefits to increase consumer satisfaction

True Interoperability

- Broad-based interoperability with world-class partners
- Supports open-standards and true flexibility
- Extensible, upgradeable, and grid-secure

Trilliant Consumer-Engagement Solutions



Quicker, easier consumer engagement business processes

- Easy-to-use software, tools
- Smart rate plan management
- Improved visibility for device management
- Streamlined device registration and security

Grid-secure

- Utility-grade security on the head-end software
- Utility-grade security to the meter
- Industry-standard security in the Home Area Network (HAN)

reduce expenses and allow advanced, value-added services.

End-to-end security. Built-in proven technology that satisfies the highest standards of security requirements.

Trilliant Consumer-Engagement Solutions Overview

The Trilliant Consumer-Engagement Solutions offering comprises two Trilliant products. UnitySuite Demand Side Management (DSM) is the utility-facing software application for our UnitySuite platform. It allows a utility to run consumer programs by enabling capabilities such as creating rate programs and distributing that information to all participating home area networks in the utility's smart grid. UnitySuite DSM works in conjunction with our field-proven SecureMesh® smart meter. Trilliant has enhanced the SecureMesh DDX technology with support for consumer program business processes. Together, these Trilliant products and technologies are designed to work with third party in-home devices. This new offering from Trilliant is exciting because it simplifies the daily activities that a utility performs when running consumer engagement programs while at the same time reducing risk by using embedded grid-security features and built-in privacy-preserving enhancements.

Management Software for Consumer Engagement Programs with a Smart Grid

Trilliant's UnitySuite Demand Side Management Head-End System (HES) Application Software enables a utility to run demand response and dynamic pricing consumer programs over their smart grid network infrastructure.

It is a unified application for Consumer Empowerment programs using consumer-owned home area networks and Demand Response programs using utility-owned home area networks. Its smart rate plan management supports flat rate, time-of-use (TOU), and volumetric rate programs in a scalable, network-efficient manner. It also supports various Demand Response programs, such as those using Critical Peak Pricing (CPP). Moreover, UnitySuite DSM also provides a suite of features and tools for improved visibility for device management, ranging from diagnostic messaging to advanced reporting capabilities. It includes purpose-built features for configuration, control, and monitoring capabilities of SecureMesh DDX meter enhancements for consumer engagement program business processes. UnitySuite DSM also supports time-saving design features for streamlined device registration and security.

UnitySuite DSM is tightly integrated with UnitySuite Platform. This component provides a set of shared services to the UnitySuite Metering and DSM components in a secure management platform that acts as a control plane for all device interactions. This tight integration brings to UnitySuite DSM the capabilities of UnitySuite Platform for device grouping and task



addressing, UnitySuite Metering for account management, and UnitySuite Reporting. The platform is a highly scalable task execution engine that incorporates sophisticated PKI-based security architecture. Collaborating with our partners, the UnitySuite HES is capable of supporting millions of endpoints.

The platform also provides support for a variety of tariffs such as Time-of-Use (TOU) and Block and Blended rate programs. UnitySuite HES supports a multi-tier architecture comprising a web server tier, a multi-component application tier and a database tier. Redundancy is built into the system at all tiers to ensure high availability. Trilliant understands that every deployment of UnitySuite HES is part of a larger ecosystem consisting of MDM, CIS, Outage Management, DMS and other back office/front office enterprise systems. Thus, UnitySuite has been built from the ground up to support integration with other applications in the ecosystem via a robust set of interfaces for virtually all data maintained by the UnitySuite HES.

Pioneering Group for True Interoperability

To deliver simple, interoperable energy awareness devices for utilities to more quickly bring the benefits of smart metering to consumers, Trilliant is bringing the industry together to make interoperable consumer products a reality. Together with a strong ecosystem of leading home energy partners, Trilliant is delivering real smart grid benefits to consumers.

Interoperability is one of the greatest challenges facing a smart grid as a multitude of technologies, systems, and devices need to securely and effectively talk to each other. The very nature of adding information and communications technology to the electric power grid and making everything works together intelligently and securely is a daunting task, yet critical to the success of the Smart Grid. Trilliant brings together a robust ecosystem of industry leaders to enhance and promote interoperability between energy management devices and the smart meter for the benefit of utilities and consumers.

Through the Partner Interoperability Process (PIP), Trilliant and leading partners strive to increase the certainty, clarity, and quality of end-to-end interoperable smart grid-enabled, consumer-owned home area network (HAN) solutions. This reduces the risk for utilities in navigating the rapidly-changing home area network landscape.

Trilliant Consumer-Engagement Solutions



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