



## ***Silver Spring Networks Technology Fact Sheet***

Silver Spring Networks' *Smart Energy Platform* is a unified platform that intelligently connects devices that generate, distribute, consume or monitor energy. The *Smart Energy Platform* is comprised of hardware, software and services that allow utilities to deploy a variety of Smart Grid applications, including advanced meter management, distribution automation, demand response and smart home initiatives. Silver Spring's hardware includes Communications Modules, Access Points, Relays, and bridges that create a wireless mesh network. This network links and enables two-way communication among meters, other grid devices, consumers and the utility.

Silver Spring's software includes UtilOS® firmware for driving hardware functionality, the UtilityIQ® application suite for Smart Grid applications in a utility's back office, and the CustomerIQ™ web portal for providing energy information to consumers. The Silver Spring Smart Grid Services group provides a comprehensive array of service offerings that enable utility customers to deploy, operate and maintain a Smart Grid, including design, installation support and customer support services, as well as application hosting.

Our comprehensive, end-to-end solution is characterized by the following:

**Open End-to-End with Flexible Transport Options** – The *Smart Energy Platform* is based on standard Internet Protocol, including IPv4 and IPv6, which enables utilities to deploy standards-based networking throughout their infrastructure and allows for interoperability as new devices are continually attached to the network. Our solution supports flexible transport options to connect to the utility back office, such as Ethernet, cellular, and WiMAX. Utilities can choose best-of-breed products, adopt multiple transport technologies and leverage a diverse set of applications from a variety of vendors.

**Secure** – The *Smart Energy Platform* incorporates an end-to-end, multi-layer security architecture including authentication, authorization, and encryption. Use of proven, standards-based, IP and associated security techniques enables our utility customers to benefit from the security advances that hundreds of thousands of programmers have contributed over decades.

**Scalable and Extensible** – The *Smart Energy Platform* can be deployed rapidly and on a large-scale basis, allowing utilities to quickly implement the Smart Grid to a large number of homes and businesses. An extensible architecture enables utilities to deploy our Smart Grid platform for one solution, such as advanced metering, and then add new capabilities, such as demand response and electric vehicle management, quickly and cost-effectively. In addition, our platform enables over-the-air firmware upgrades.

**Broad, reliable coverage** – Silver Spring's Communications Modules, Access Points, relays and bridges incorporate 1-watt radios with multiple channels, sophisticated routing techniques and high-speed, node-to-node communications combined with a mesh architecture that enables us to provide broad network coverage throughout diverse terrain and population densities, ranging from urban to rural. Devices with our Communications Modules work together to form and extend the reach of our RF mesh network, which is highly resilient, self-configuring and self-healing. Endpoints can communicate with multiple Access Points giving them multiple paths they can follow to reach the utility back office.

**Cost effective** - RF mesh is a high-quality, low-cost architecture in comparison to more expensive tower-based, cellular, or power-line communication-based architectures.