Silver Spring Networks Company Overview

- Celebrating a decade of success
- The leader in open energy networks
- Global reach
- 18.5M Silver Spring-enabled devices delivered
- The broadest ecosystem, with 75+ partners
- Listed on the NYSE – SSNI
Smart Grid Architecture

<table>
<thead>
<tr>
<th>BACK OFFICE</th>
<th>NETWORK OPERATING CENTER</th>
<th>SMART GRID NETWORK</th>
<th>SMART GRID DEVICES</th>
<th>SMART HOME</th>
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<tbody>
<tr>
<td>OMS</td>
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<td>DMS</td>
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<td>CIS</td>
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<td>MDMS</td>
<td>EAI/MESSAGE BUS</td>
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</table>

- UIQ SUITE
- UIQ NEM
- UIQ AMM
- UIQ ODS

WAN
- Ethernet
- CDMA
- GSM

ACCESS POINT
- RELAY
- CAP BANK/Bridge
- SWITCH/Bridge
- RELAY

SMART HOME

CPS Energy
Silver Spring Networks
Silver Spring Smart Grid Devices

- Gen4 Access Point (AP)
- Gen4 Relay
- Bridge
- Field Service Unit
- Electric Commercial Meter
- Electric Residential Meter
- Gas Residential IMU
- Gas Commercial IMU
- Gas Commercial IMU
Wireless Mesh Network: Pole-Top Canopy

- Pole-top mounted network devices create a canopy mesh.

- The pole-top canopy mesh, in addition to tower mounted network equipment, provides wireless backhaul for smart meter, DA and other applications.

- Pole-top network devices include Access Points and Relays which are attached to existing CPS Energy utility poles.

- Relays extend and fill in the mesh.

- Access Points provide backhaul to the back-office system through cellular or utility provided data uplinks.
CPS Energy Field Network: AP & Relay Placement

Access Points
~255

Relays
~1,100

- After determining AP locations, relays are designed to link between meter populations and APs.
- Very few relays in central core of territory.
- Large amounts of relays in the periphery of territory. Direct correlation with low meter density in these areas.

Meters Per Square Mile with 1.0 sq. mi Grid
- 1,001 to 3,001 (227)
- 501 to 1,001 (154)
- 101 to 501 (279)
- 51 to 101 (196)
- 26 to 51 (200)
- 11 to 26 (191)
- 1 to 11 (236)
CPS Energy
Electric Meters and Gas Meters

<table>
<thead>
<tr>
<th>Electric Premises</th>
<th>~750,000</th>
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<tbody>
<tr>
<td>Gas Premises</td>
<td>~340,000</td>
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</table>

- Electric and Gas meters mesh together to create the ‘meter mesh’.
- The meter mesh then connects to the pole-top mesh for backhaul to the back-office utility and billing systems.
Access Point/Relay Installation

Pole-top Mesh Installs in CPS Energy Service Territory Began December 2013
Silver Spring Security

• Strong smart grid security measures required throughout every element of the grid.
• Private Cellular Network for communications between back office and mesh network devices.
• We utilize standards-based security technologies and practices to ensure end-to-end protection of devices and communications on its smart grid platform.
• Layered approach to security known as "defense in depth," to apply multiple protection techniques - such as encryption, authentication and authorization
• Validated by constant testing and evaluation by vendors, customers, security researchers, and independent third-party testers.