



Communications for a Smarter Grid

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**U.S. – Mexico Smart Grid Conference
March 29, 2012**

Mexico City

Safe Harbor

This presentation contains forward-looking statements that involve substantial uncertainties and risks. These forward-looking statements are based upon our current expectations, estimates and projections about our business and our industry, and that reflect our beliefs and assumptions based upon information available to us at the date of this release. We caution readers that forward-looking statements are predictions based on our current expectations about future events. These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions that are difficult to predict. Our actual results, performance or achievements could differ materially from those expressed or implied by the forward-looking statements as a result of a number of factors, including but not limited to, changes in economic conditions generally and the smart grid market specifically, changes in technology, legislative or regulatory changes that affect us, the availability of working capital, changes in costs and the availability of goods and services, the introduction of competing products, changes in our operating strategy or development plans, our ability to attract and retain qualified personnel, and changes in our acquisition and capital expenditure plans, and the risks and uncertainties discussed under the heading "RISK FACTORS" in Item 1a of our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, and in our other filings with the Securities and Exchange Commission. We undertake no obligation to revise or update any forward-looking statement for any reason.

Ambient at a Glance

- Public Company: NASDAQ:AMBT
- Operations: Headquarters Newton, MA – USA
- Customers: U.S. utility Duke Energy
- Products: Smart Grid Communication Nodes / Network Management Systems / Energy Sensing Products / Current Transformers (CTs) / Partial Discharge Monitoring
- History: Focused exclusively on utility communications and applications for over 10 years. Since 2007, Ambient has offered an interoperable IP-based platform.
- Revenues: \$2.2M(2009) \$20.4M(2010) \$62.3M(2011)

Ambient Corporate Objectives

- Enable our customers with the most efficient smart grid communications platform
- Grow our customer base
- Expand our proven technology to new territories
- Seeking Utility partners to;
 - contribute to their Smart Grid R&D agenda
 - participate in Field trials that lead to larger scale deployments

Ambient Approach to Smart Grid

The utility of the future requires a two-way digital communications infrastructure that provides a flexible and scalable multi-purpose platform from which to extract end-to-end Smart Grid benefits.

Smart Grid Utility Systems - ("Platform model")

Alternative to the traditional vertical networks or "silo" approach.



Common Communications Platform

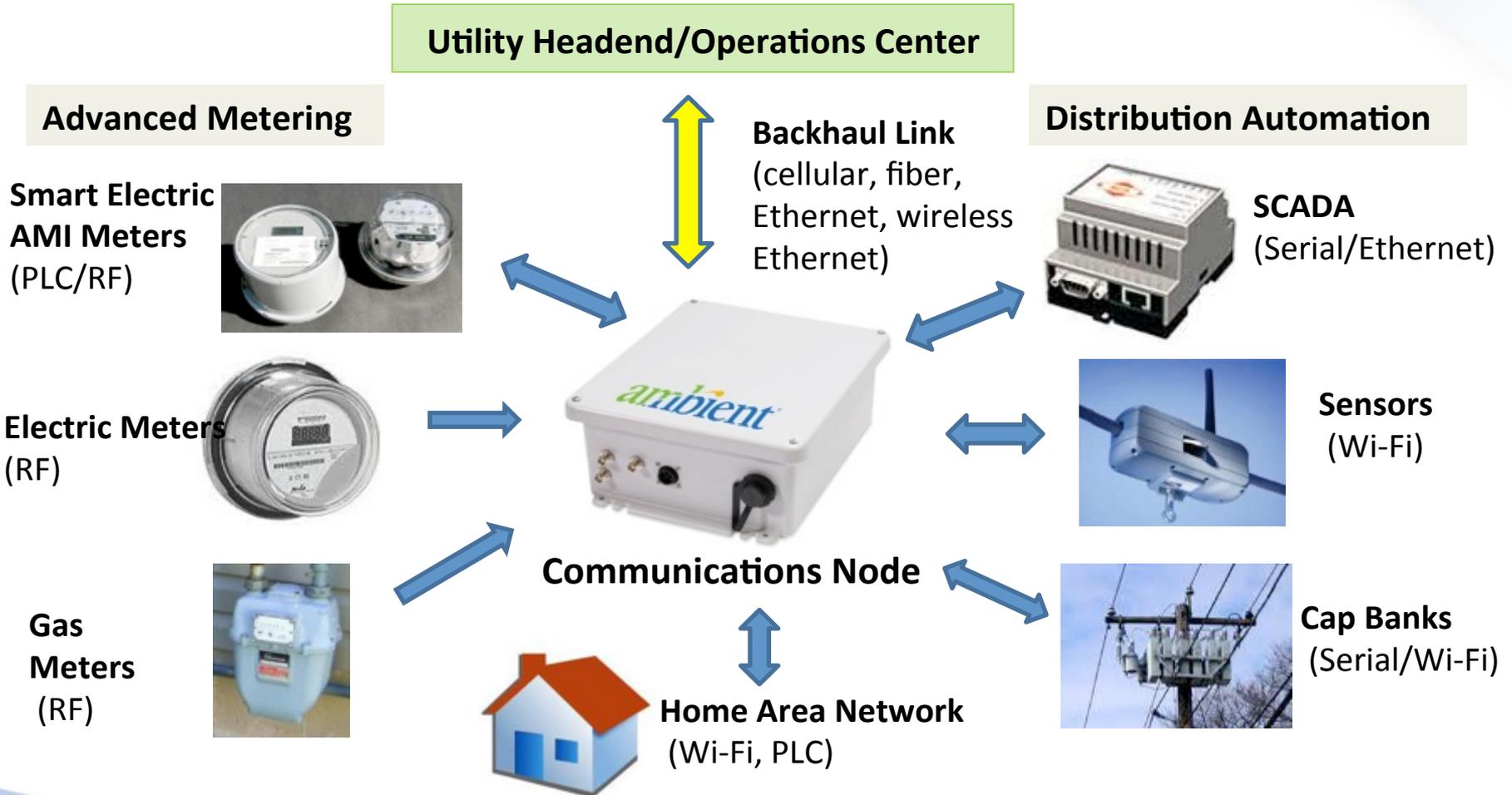
Silos picture source:
www.cs.colostate.edu

Ecosystem - Partners



Flexible Communications Platform

Enabling Multiple Smart Grid Applications



The Ambient Smart Grid Communications Platform

Advantages of Node

- Single, tightly integrated, multi-purpose device
- Minimizes operational & management overhead
- Holistic approach vs. individual application approach
- A key component for a distributed intelligence architecture

Technology Selection Independence

Maintaining Functional Independence

Ambient Smart Grid Communications Platform

Delivers the benefits of a distributed architecture

- Choice – where to analyze
- Performance - real time monitoring and analysis
- Reduce effort/cost
 - for centralized storage & data
 - Communications cost
 - Data Warehouse storage cost

Inherent Smart Grid features

- Communications flexibility
 - Cellular, Wi-Fi, PLC, RF, Serial, Ethernet
- Security
 - Tamper resistance, Watchdog, Battery backup
 - Encryption, Un-configured ports, SNMP V3 based
 - Local passwords, Network authentication, offline access
 - Integral firewall, SSL protected remote access, Wi-Fi WPA
- Network Management
 - SNMP based
 - Monitor & Manage

Optional Ambient Applications *Development*

- Outage & Restoration management
- Power Quality Monitoring / Energy Sensing (PQM)
 - VoltVAR data points
- Partial Discharge Monitoring (PDM)
- Commercial and Industrial Metering Communications
- RF (ERT) Data Collection Module *Bridging AMR deployments*
- “Distribution Automation” for legacy infrastructure assets
- DNP3

Centrally Managed/Reside on Node *Applications*

- Voltage Monitoring
- Transformer Overload Monitoring
- Remote Fault Detection
- Integrated Volt/VAR Management
- Demand Response Event Management
- Streetlight Monitoring
- Plug In Electric Vehicle (PEV) Monitoring



Smart Grid Communications Node

Duke Energy



- 2005 Utility of the Future Pilot
- 2006 Pilot Demonstration/First Commercial Agreement
- 2008 Second Commercial Deployment
- 2009 Long Term Agreement
- 2010 Duke signs SGIG contract with the U.S. Dept. of Energy
- 2012 Will end with 100K Smart Grid Nodes deployed

ConEd



- 2001 Initial BPL pilot/Investment of \$1.4M
- 2004/6 Demonstration/deployment
AC Controls, Video Surveillance, Remote Switching
- 2012 Legacy Meter Reading & Data Acquisition System

Ambient Smart Grid Platform

Communications Nodes

- Based on open, IP standards for complete interoperability
- Contains hardware and software
- Configured to act as individual data processors and collectors
- Directly interfaces with any device with an Ethernet port



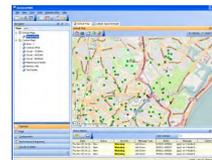
Integrated Applications

- Real-time & historical reading of current and voltage characteristics of the grid
- Real-time monitoring of underground electric lines
- Incorporated directly into communication nodes
- Incorporates third party solutions



Network Management System

- Suite of integrated applications for performance analysis and reporting
- Manages a large number of endpoints
- Comprehensive controls, provisioning, event logging, data collection, alerts, reporting and multiple levels of security



Maintenance & Consulting Services

- Maintain software within nodes
- Enables software upgrades and new features to be distributed remotely
- Consulting services: product development, deployment strategy and network management services



Closing

- Introduction to Ambient
- Insights to “Communications for a Smarter Grid”
- Built on Open, Flexible, Standards based
- Designed for Agile development, expansion & integration
- Platform built on;
 - Standard, open, IP platform
 - Scalability – 90,000+ nodes
 - Depth and Width – RF, PLC, Wi-Fi/AMI, DA, DG
 - Solid financials – continued growth year after year



Communications for a Smarter Grid

Thank You!
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