Smart Utility Networks – Developmental Trends

Description: The objectives of this report were to show the role of ICT to support the Smart Grid infrastructure; and introduce some trends in the ICT development. The report also updates previous Practel reports published in 2009-2011.

Particular, the report addresses the following:

Section I - Introduction. It explains the major Smart Grid goals and provides examples of developments.

Section II - Provides detailed Smart Grid background. The activities of multiple Smart Grid associations and industry organizations are covered.

Section III - Provides marketing and technological analysis of the Smart Grid ICT; covers industry characteristics and Smart Meters developing. The surveys of products portfolios of major industry players are provided.

Section IV - Provides the analysis of evolving Smart Utility Networks standards and technologies; marketing characteristics are also addressed as well as the survey of evolving industries. This includes the following:

- The IEEE 802.15.4g and related technologies
- The IEEE 802.22 and related technologies
- The ITU G3 PLC and related technologies.

Section V - Conclusions.

The report also contains two Appendixes.

This report is written for a wide audience of technical and managerial staff that is involved in the development of Smart Grid ICT.

Target Audience

This report is important to a wide population of researches, technical and sales staff involved in the developing of the Smart Grid ICT and particular in SUN. It is recommended for both service providers and vendors that are working with related technologies.

Research Methodology:

Considerable research was done using the Internet. Information from various Web sites was studied and analyzed. Evaluation of publicly available marketing and technical publications was conducted. Telephone conversations and interviews were held with industry analysts, technical experts and executives. In addition to these interviews and primary research, secondary sources were used to develop a more complete mosaic of the market landscape, including industry and trade publications, conferences and seminars.

The overriding objective throughout the work has been to provide valid and relevant information. This has led to a continual review and update of the information content.

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Aeris (Wireless Network Provider)
Alcatel-Lucent (Infrastructure)
Analog Devices (RF Transceivers)
AT&T/SmartSynch (Network Services)
BPL Global (Software Platform)
Carlson Wireless (Radio Platforms)
Current Group (Systems, Sensors)
Cisco (IP-based Infrastructure, hardware)
Eka Systems (Network Nodes-Mesh) - Acquired by Cooper Power Systems in 2010
Elster (AMI, AMR)
Echelon (Smart Metering System)
eMeter (Management Software)
GE (Hardware and Software-Smart Meters)
Google (SW)
GreenBox (Management Platform) - Acquired By Silver Spring Networks in 2010
GridPoint (Network Platform)
Grid Net (Network Management Software)
Infotility (Software)
Itron (Intelligent Metering)
Oracle (Software)
Landis+Gyr (Metering Devices)
Sensus Metering Systems (Data Collection and Metering)
SmartSynch (Networking)
Silver Spring Networks (Networking)
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Spinwave (Building Control, HAN)
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