



Energy Services Interface Whitepaper A Very Brief Overview

B2G/I2G/H2G DEWGS

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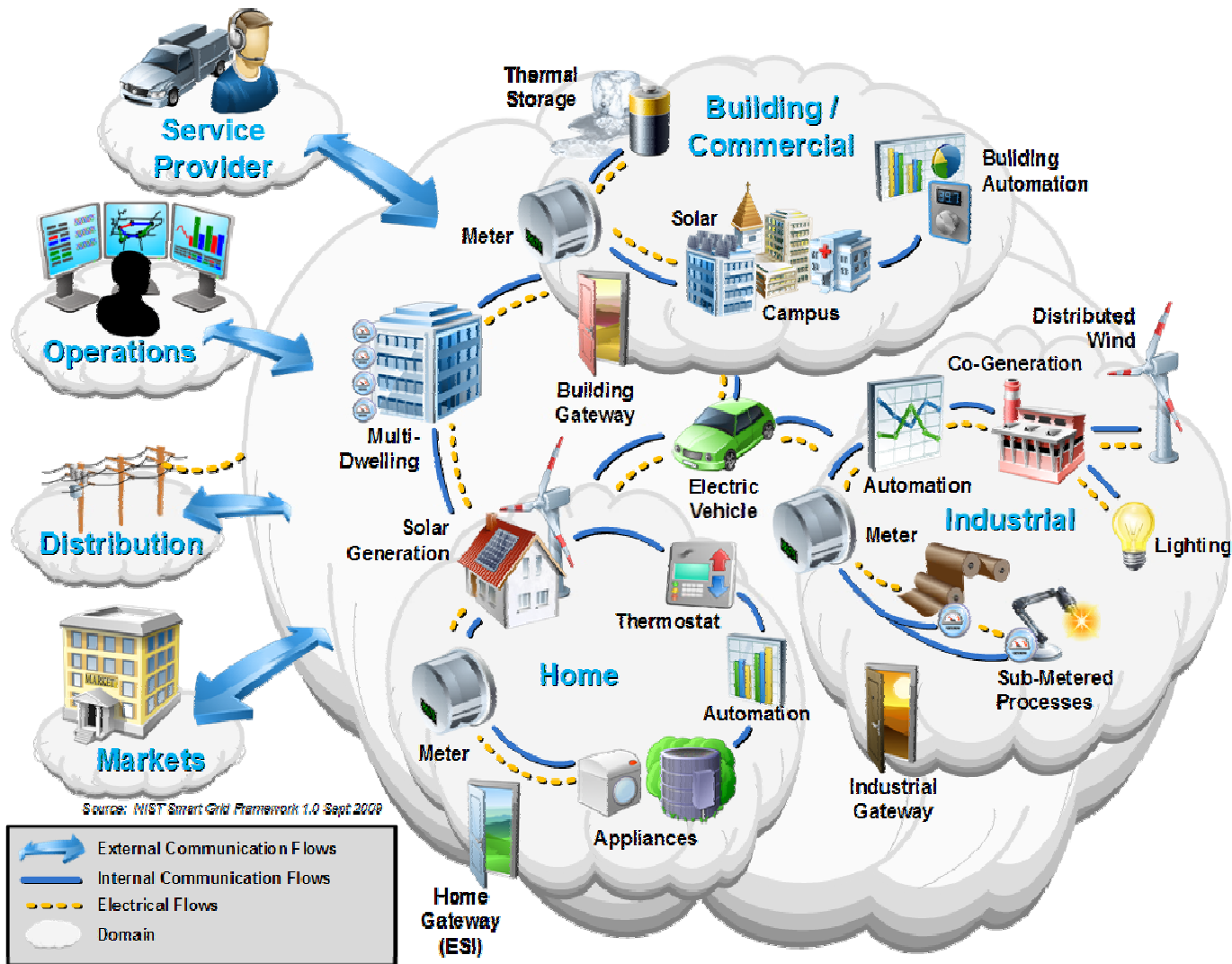
- <http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/B2GEnergyServicesInterface>
- Link on B2G and I2G TWIKI Pages
- Developed by B2G, I2G and H2G DEWGS
- Current Version: 8.1

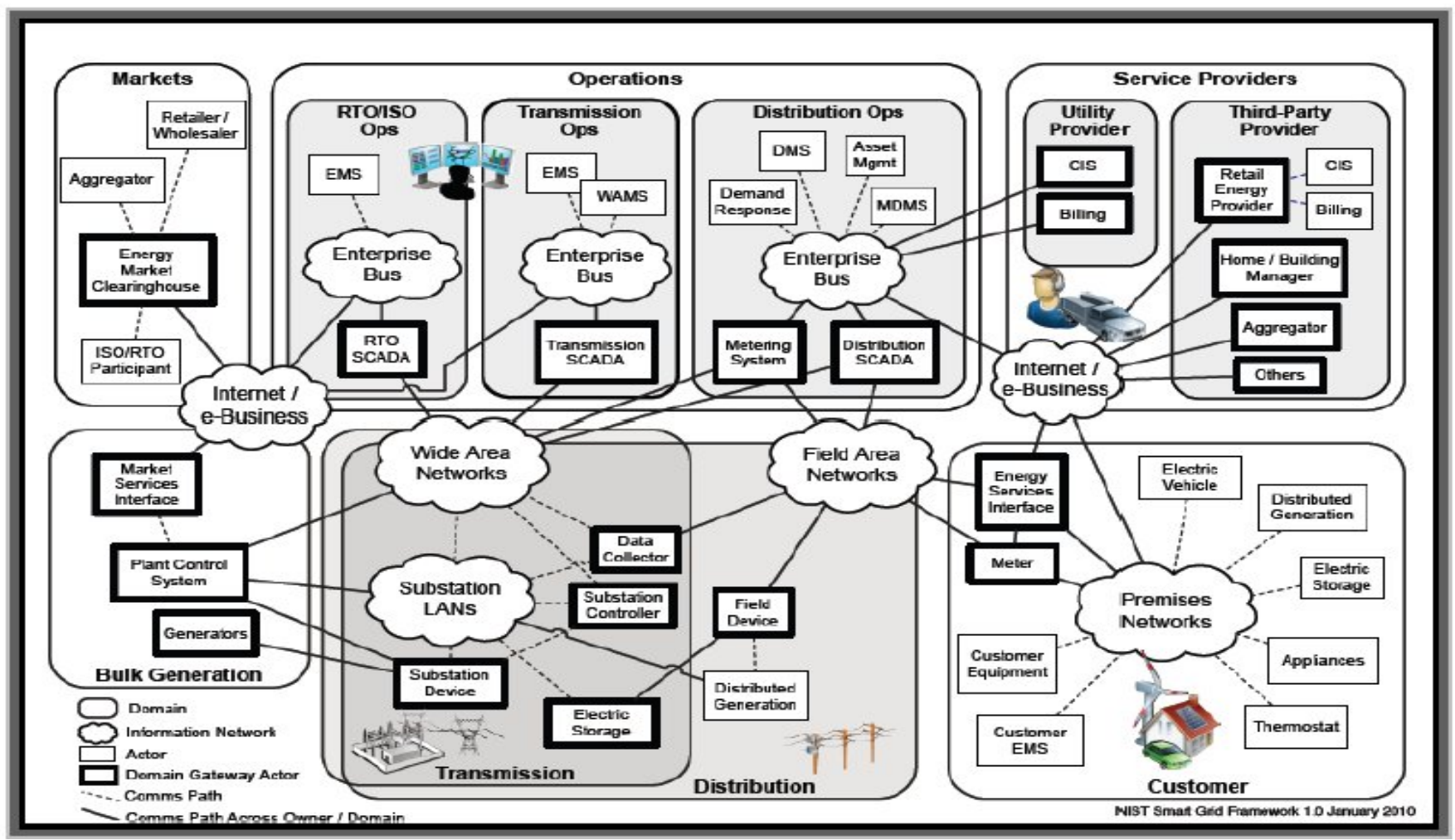
- Enhancing interoperability between energy service providers and energy customers
- Providing stakeholder context and guidance
- Generating further discussion among residential, commercial, industrial and other stakeholders
- Providing input to the Smart Grid Interoperability Panel (SGIP) working groups, including the standing committees
- Highlighting gaps in standards

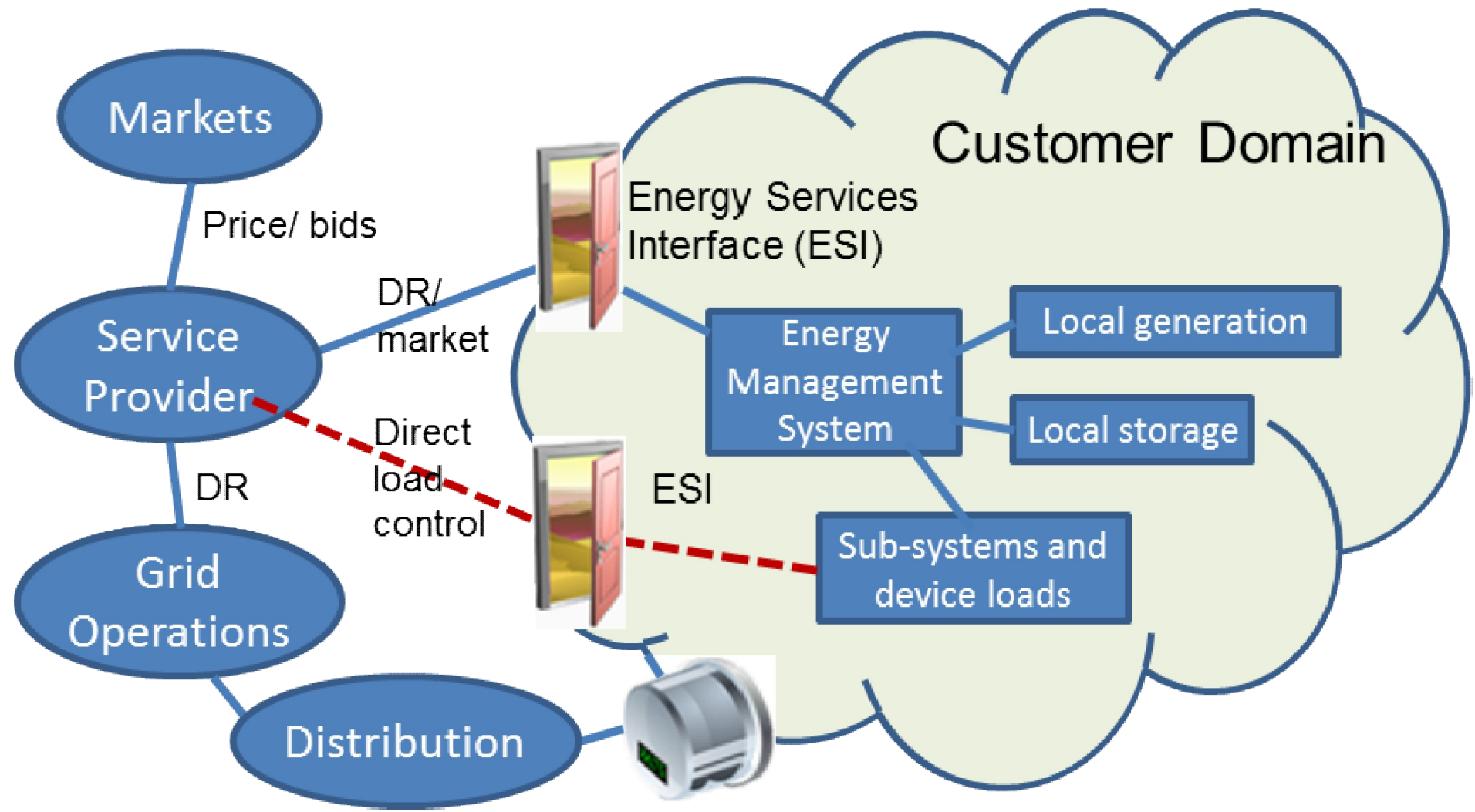
- Examining the information and use cases for communications across the ESI
- Understanding the different levels of abstraction for cross-domain interactions
- Examining the standards that exist or are under development that touch the ESI

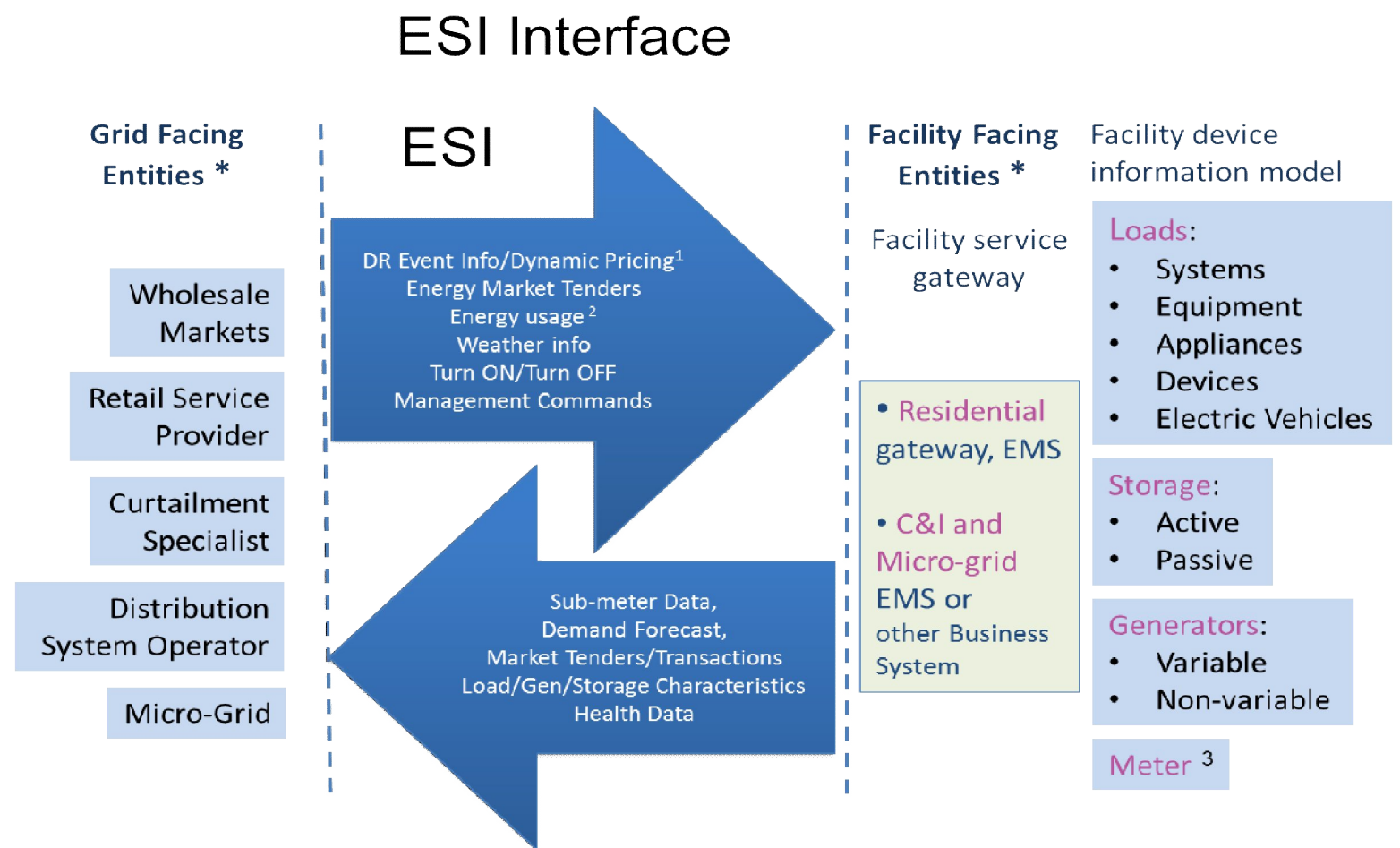
- The Customer
- Business Considerations
- Information Exchange at the Interface
- Existing ESI Definitions
- Functional Characteristics
- Quality Characteristics
- Architectural Considerations
- Principles of the Abstract Interface
- System Design Considerations
- Standards
- Conclusions and Recommendations

Customer









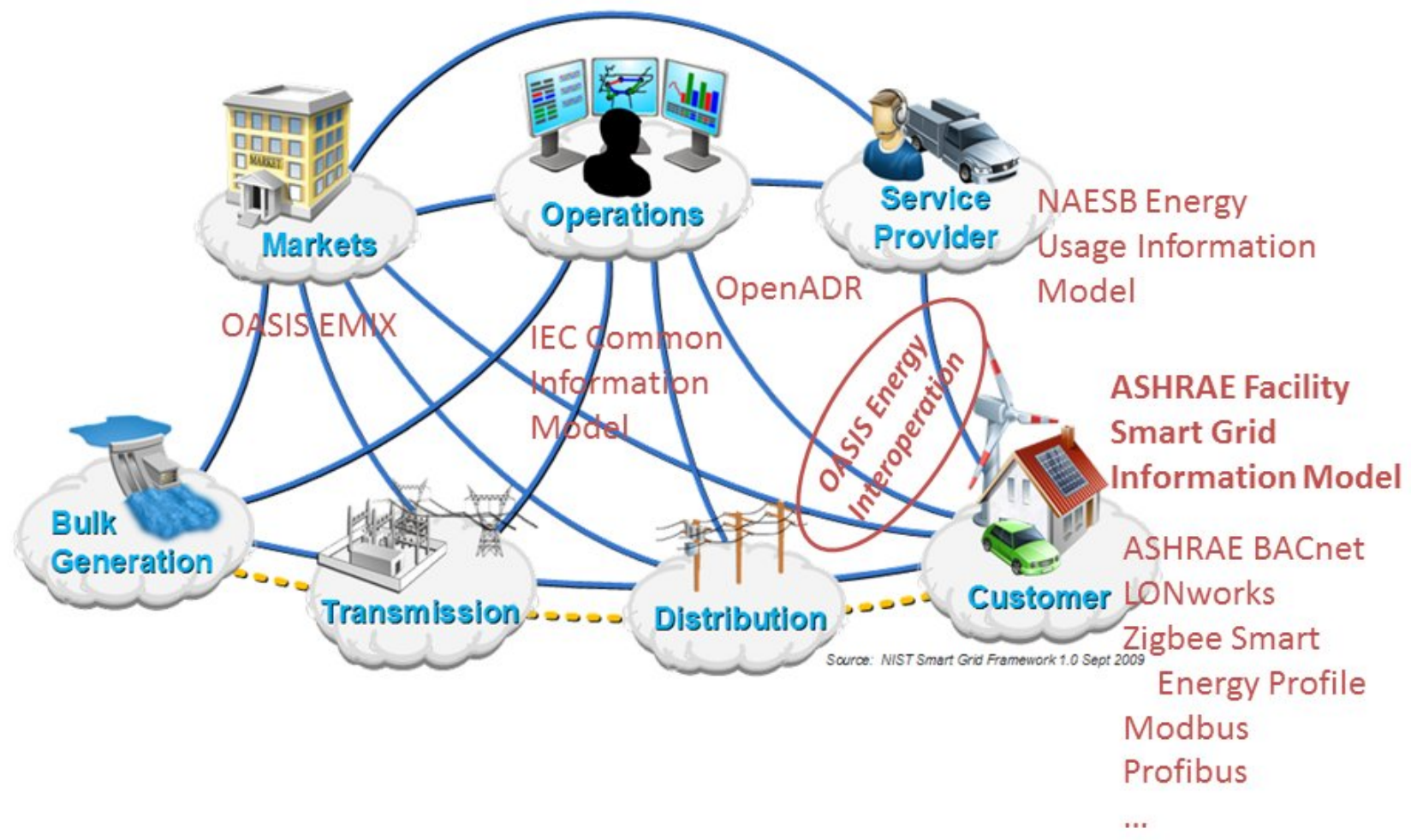
¹ DR event notification, start time, duration, shed level/ price, bid acceptance

² Energy usage, per NAESB ESPI standard provides validated meter data from utility back end.

³ The meter shown here in the facility domain is a sub-meter. The utility revenue meter may also provide data to the facility owner using the facility meter data model.

*The service providers and consumers listed here are given as examples and not meant to be comprehensive.

Conceptual Model of the Smart Grid



- Evaluate the alignment between existing internal facility communication protocols
- Evaluate alignment between OASIS Energy Interoperation and ASHRAE 201P and SEP2
- Coordinate with IEC (PC 118)
- Integrate SAE J2847/1 (V2G) with OpenADR2
- Analysis and requirements for high-performance, scalable transport protocols
- Standardize tariff rate structures

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