Overview of Interoperability Standards Landscape and T&C

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July 9, 2018
Sources of Standards

SEPA/SGIP SG CoS List

Identified SG Standard List of NIST Framework R3.0

DSO Priority List

New Standards:
- New Standards
- New versions of old standards

Smart Grid Standards for Evaluation (244 Standards)


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*Note: The table and diagram above are placeholders for the actual content.*

**Information Model**
- Description: This standard establishes acceptance criteria for new types of on-peak, off-peak, and demand meters.
- Characteristics: It provides new service performance levels for meters and devices used in real-world applications.

**Communication Model**
- Description: This standard describes the criteria required for communication between devices and systems.

**Performance**
- Description: This standard provides details for a complete implementation of an OSI 7-layer model.

**Test method**
- Description: This standard defines a Table structure for test application data to be passed between End Device and other devices.

**Communication Mapping**
- Description: This standard provides a common data structure for one-to-one interactions.

**Model Mapping**
- Description: This standard provides a common data structure for one-to-one interactions.

**Guideline & Practice Security (Types)**
- Description: This standard provides a common data structure for one-to-one interactions.
Preliminary Data Analysis

Smart Grid Standards and Associated Testing & Certification

- **Information Model**
  - Standards Functional Category
  - Number of Standards: 17/61

- **Communications Protocol**
  - Standards Functional Category
  - Number of Standards: 26/114

- **Performance**
  - Standards Functional Category
  - Number of Standards: 14/30

Communication

Information Model

Performance
Gaps persist in assuring interoperability

• The collection of standards that support grid modernization continues to grow and diversify.

• There remains a gap in the availability of testing and certification programs to ensure that standards have been implemented appropriately and consistently to support interoperability of devices and systems.

• Even as some standards are converging on a subset of requirements, they are typically on parallel pathways.