At a glance
PSS®ODMS is a multi-purpose software product for electrical power transmission system planners and operators. The software is currently used by power companies around the globe to manage grid/network models, train system operators, augment existing SCADA/EMS functionality with online advanced network applications, and facilitate compliance with interoperability regulations based on the IEC CIM 61970 standard (NERC CPSM and ENTSO-E profiles).

PSS®ODMS offers a broad range of features designed to increase power system security, reliability, network modeling accuracy and productivity. The network modeling and analysis functions support past, present and future network states (including alternative future scenarios).

The challenge
In today’s energy industry, network modeling accuracy and efficiency problems result from transmission planning and operations departments maintaining and using completely separate data models. Each department relies on these models to help plan and execute important business decisions. When there is no consistent, sustainable data sharing approach, day-to-day efficiency and even system reliability can be compromised.

Our solution
Siemens PTI offers the Single-user Model Management (SMM) to create, merge, maintain and exchange network models in common information model (CIM) format.

Specifically, the SMM solution facilitates the following key features.

- Maintain the official version of your network model in a powerful CIM-based environment.
- Build study cases, solve power flow, visualize results and export directly to PSS®E.
- Exchange network models with other entities in CIM/XML format.
- Create scripts to automate data conversion processes via powerful Python APIs.

Optional features
Project modeling is an optional module that provides a set of functions to interactively record, manage and analyze planned model changes in advance of commissioning. Future model changes can be organized into multi-phase projects, with each project phase having a specific, editable commissioning date.

All of these capabilities available in SMM facilitate efficient and productive workflows related to maintaining and exchanging CIM-compliant planning models.

Ensure grid models comply with interoperability requirements / regulations based on the CIM standard.
Application example

Problem

“We are facing increasing pressures to facilitate interoperable exchange of power system network data between neighboring utilities / balancing authorities / system operators, and to exchange data between applications within our organization. We are hamstrung by all of the proprietary data formats that are in use. We need a tool to import and export network models in industry standard CIM format.”

Solution

PSS®ODMS allows engineers to maintain and exchange network-related data quickly and easily. It converts proprietary network model data (including PSS®E and various EMS formats) into the industry-standard International Electrotechnical Commission (IEC) Common Information Model (CIM) format and can import and export data in CIM/XML. The product has more than a decade-long history of participation in official CIM interoperability tests in which it has been certified as fully compliant with both the CPSM (Common Power System Modeling) and ENTSO-E CIM profiles.

Benefits

- Comply with interoperability regulations based on the CIM standard
- Facilitate interoperability and information exchange between and within power transmission organizations