Advanced Distribution Management System

Schneider Electric Smart Grid Solutions Suite

Managing the Power Networks of the Smart Grid Era

Make the most of your energy™
Electric utilities are preparing for the multitude of challenges facing the industry – growing regulatory and customer pressure for increased reliability and reduced carbon emissions, adoption of distributed renewable generation and energy storage, increase in severe weather patterns and network outages, and the inevitability of both an aging workforce and infrastructure.

The Schneider Electric\textsuperscript{TM} Advanced Distribution Management System (ADMS) – with advanced DMS analysis to optimize network operations, combined with a field-proven SCADA system to addressing modern cyber security requirements and embedded OMS for improved resiliency and reliability – is the ideal solution. It provides utilities with modular and flexible platform within a common user experience, data model, integration framework, and secure infrastructure. ADMS provides advanced monitoring, analysis, control, optimization, planning, and training functions allowing utility companies to provide more reliable, safe, and efficient power.

ADMS integrates energy efficiency, demand response, and distributed energy resource technologies to enable synchronized and automated approaches to demand management otherwise not possible. ADMS provides automation through closed loop control, advanced apps for volt/VAR optimization (VVO), demand management/peak shaving, and fault location, isolation and supply restoration (FLISR).

The Schneider Electric ADMS solution presents clear and consistent realtime forecasted, and historical views of the distribution network. It allows system operators, dispatchers, planning engineers, reliability analysts, and managers to work as a team - accessing the same as-operated representation of network grid information. This common situational awareness provides efficient and reliable management of grid operations in the face of a diverse, rapidly changing environment. ADMS benefits include greater network reliability, improved operational efficiency, reduced operations costs, increased safety, enhanced security, support for regulatory compliance, better asset utilization, and standards-based integration.
What’s New: recent developments

The most recent release of ADMS contains significant enhancements:

**Simplified Deployments** – Ability to deploy SCADA, OMS, DMS comprehensively or individually/separately, as desired, along with the option for virtualized deployments expediting and simplifying system deployment and maintenance.

**Enhanced Data Management** – Managed and configurable workflow and reduced data requirements for integration with external data sources, such as GIS, including pre-built equipment catalog, default values configuration, and comprehensive model promotion.

**Equipment Management**

- **Improved Reliability and Resiliency**
  - **Fault Management Processes** – manual and automated FLISR seamlessly integrated with OMS to accurately predict incident locations and reduce restoration times.
  - **Network Instability Forecasting** – near-term forecasting of load and storm impact, enhanced with historical analysis and integrated weather services.

- **Regulatory Compliance** – network operation visibility and improved regulatory indices on a secure infrastructure supporting regulatory audits.

- **Optimized Network Operations**
  - **Switch Order Management** – automated process creating optimal switching steps efficiently validated, via simulation, to reduce outage times and increase operational safety.
  - **Crew Dispatch** – optimized crew dispatch, aligned with forecasted workload and enhanced with AMI integration, mutual aid support, and damage assessment functions.

**Mobile Field Client** – using advanced mobile technologies, Field Client includes dashboard, geographic and schematic views, supports both disconnected (off-line) and connected work, switching management, and outage management for improved coordination and resiliency.

- **Increased Energy Efficiency and Quality**
  - **Energy Losses** – innovative functions for reducing technical and commercial power losses using advanced optimization algorithms.
  - **Voltage and VAR Profiling** – advanced functions for providing the highest quality of power and optimal voltage levels.

- **Demand Side Management** – supporting various types of demand side management programs allowing optimization of prioritized objectives.

**Reduced Total Cost of Ownership and Capital Investment**

- **Common Platform** – common user experience, data model and structure, integration framework, secure infrastructure, and training simulator for system planning as well as operator training.

**DG & EV Planning and Historical Analysis**

- Improved planning for increased deployment and connection of distributed generation & electric vehicles, optimization of capital expenditures in network reinforcement and automation, as well as advanced filtering and reports for detailed historical analysis.

- **Transmission Analysis** – Transmission, and subtransmission network modeling and analysis that can be deployed either fully integrated with DMS or as a stand-alone system.
Modular Architecture – ability to deploy individual ADMS components, lowering initial deployment costs and allowing a phased approach, where components can be added as needed, utilizing the same architecture.

Integration – standards-based CIM integration with external systems such as GIS, AMI, GIS, and Weather Services, etc.

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The Schneider Electric ADMS solution represents the evolution of control room technology by merging DMS, OMS, and SCADA technologies into one comprehensive network management solution. As part of the Schneider Electric Smart Grid solutions suite, it can help your utility transition into a next-generation energy provider by enabling safer, more reliable, and more efficient power management.

For More Information...
Scan the QR code to email one of our subject matter experts about how this unified solution can help you meet your utility’s Smart Grid goals.