ETAP ADMS™ is a combined planning and operation solution to manage, control, visualize, and optimize electrical power distribution network comprising of:

- Geospatial Information System (GIS)
- Electrical Supervisory Control & Data Acquisition (eSCADA)
- Distribution Management System (DMS)
- Distribution Network Applications (DNA)
- Outage Management System (OMS)

**Scalable and modular** solution to manage, control, visualize, optimize and automate utility distribution networks from large cities to rural cooperatives.

**Integrated** network model for planning, protection, reliability and operations.

**Intuitive** and user-friendly graphical user interface used by Distribution Network Operators (DNOs), Dispatchers, Planning Engineers, Reliability Analysts and Managers.

**Advanced Analytics** including Distribution State Estimation, Volt/VAR Optimization (VVO), Conservative Voltage Reduction (CVR), Fault Location, Isolation & Service Restoration (FLISR), Outage Prediction, Load Forecasting, Unified AC & DC Power Flow, Distributed Generation Modeling, Protection, Load Shedding and more.

**Situational Intelligence** provides efficient and reliable grid analysis and management during rapidly changing network state.

**Standardization** with majority of industry applications and easy integration with legacy and third party software.

**ETAP ADMS™**

**Intelligent | Integrated | Comprehensive**

**eSCADA** provides real-time visualization via intelligent graphical user interface comprising of one-line schematics, substation views, distribution feeder layout, geospatial diagrams and analytical dashboards.

**DMS** proactively reduces peak demand, optimizes network assets, while assisting distribution networks deliver electricity more efficiently, reliably, securely and economically.

**OMS** minimizes outage disruption by enabling faster detection and restoration through enhanced situational awareness, automation, and effective use of field crews.

Integrated eSCADA - DMS - OMS
ETAP eSCADA solution enables effective management of an increasingly complex distribution network and allows for maintenance of operational reliability.

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**Monitoring & Visualization**

SCADA Human Machine Interfaces (HMI) provides a modern graphical dashboard with electrical intelligence and situational awareness.

Smart visualization views, combined with predictive analytics, enable the system dispatcher to effectively view and analyze key performance indicators.

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**Communication Protocols**

ETAP's communication architecture integrates seamlessly with third-party hardware, substation automation equipment, RTUs, PLCs, etc. regardless of manufacturer model and protocol. Direct communication protocols include Modbus®, DNP3, IEC 103/104, IEC 61850, OPC-UA®, etc.

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**Alarm & Trending**

Alarming & Notification management system prioritizes sequence of events via graphical and tabular views. Automatically download, visualize, trend, and archive electrical waveforms from relays, meters, PMUs, etc. Operation Monitor tracks, alarms and schedules maintenance for field equipment based on number of operations.

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**Event Playback & Data Historian**

Event Playback is useful for root cause and effect investigations, improvement of system operations, exploration of alternative actions, and replay of what-if scenarios. ETAP Event Playback capabilities translate into reduction of maintenance costs and prevention of costly shutdowns.

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**SCADA Integrator**

SCADA Integrator tool enables quick creation of standardized and reusable one-line diagram and HMI templates for efficient system integration and rapid deployment across the entire organization.

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**Supervisory Control**

Supervisory Control provides comprehensive and flexible online control including intelligent switching interlock enforcement, control validation, programmable schemes & scripts, sophisticated built-in control & protection algorithms, and local & remote control inhibition.

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**eSCADA**

Distribution electrical SCADA with intuitive real-time visualization & analyses

ETAP eSCADA is a model-driven, real-time data acquisition system in a common integration framework and secure infrastructure. eSCADA bridges the gap between network operators and field crew allowing for informed decisions from any location using latest web-based technologies.

Distribution networks with various service territory size or capacity can benefit from state-of-art applications and embedded protocols for critical operations and business decisions.
ETAP Distribution Management System (DMS) is an intelligent and robust collection of GIS based advanced distribution network applications that enhance electric utility performance.

ETAP DMS proactively reduces peak demand, optimizes network assets, while assisting distribution networks deliver electricity more efficiently, reliably, securely and economically.

DMS and DNA provides advanced decision support capabilities for safe and reliable operation of the distribution network. ETAP ADMS provides a user-friendly environment and comprehensive functionality to enhance the management of medium and low voltage radial or looped distribution networks.

ETAP DMS is built on existing and proven ETAP Real-Time™ solution and integrates with GIS, eSCADA, OMS and other applications such as Automated Meter Reading (AMR), and Customer Information Systems (CIS).

ETAP DMS proactively reduces peak demand, optimizes network assets, while assisting distribution networks deliver electricity more efficiently, reliably, securely and economically.

Distribution Management System

Informed Decisions | Advanced Analytics | Optimum Operation

ETAP Distribution Management System (DMS) is an intelligent and robust collection of GIS based advanced distribution network applications that enhance electric utility performance.

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DMS and DNA provides advanced decision support capabilities for safe and reliable operation of the distribution network. ETAP ADMS provides a user-friendly environment and comprehensive functionality to enhance the management of medium and low voltage radial or looped distribution networks.

Distribution Management System is built on existing and proven ETAP Real-Time™ solution and integrates with GIS, eSCADA, OMS and other applications such as Automated Meter Reading (AMR), and Customer Information Systems (CIS).
Integrated Outage Management System (OMS) and Mobile Workforce Management (MWM) solutions minimize outage disruption by enabling faster detection and restoration through enhanced situational awareness, automation, and effective use of field crews.

**Planned Outage Management**
- Planned Outage Management System is used by the Projects or Maintenance department to partially or completely deenergize electric circuits.
  - Notifications & work permits
  - Generate & validate switch plans

**Trouble Call Management**
- Customer outage-related Trouble Call Management summarizes all of the ticket information to analyze location of any ticket (prediction or confirmed outage) and to monitor the repair progress.

**Outage Prediction & Analysis**
- Automatically track outages, predict their most likely source and share information across the network.
  - Reduce duration of individual outages by identifying the locations
  - Uses customer call data and external event data

**Storm Assessment**
- Used in situations where major network damage is present and requires quick response.
  - Geospatial network map with Storm Damage information
  - Summarized damage location records

**Outage Analytics & Reporting**
- Real-time dashboard summaries and tabulation of outage data and quality of service indices.
  - Create custom reports using drag and drop from the data model
  - Create, verify, and edit user-defined QoS formulas

**Crew Dispatch & Management**
- Provides an organized and efficient way to manage the correlation of crews to work orders or tickets. Crew Management user interface enhances the dispatcher’s / supervisor’s situational awareness via an easy to use and visual progress of outage restoration or work resolution.

**Customer Outage & Mobile Workforce Management**

OMS and MWM solutions provide the foundation for improving outage response and restoration times.
ETAP ADMS Enterprise Integration

Unified Smart Grid Management Architecture

ETAP Unified Smart Grid Architecture includes integrated communication with other ETAP solutions:

- Automated Fault Management System (AFAS)
- eProtect Central Relay Database Management
- ETAP Grid™ Distribution Planning & Analysis

**ETAP ADMS Enterprise Integration**

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**Real-Time Network**

- Intelligent Devices
- Feeder Automation
- Substation Automation
- ETAP Microgrid Controller Distributed Resource
- ETAP Energy Management System
- ETAP Automated Fault Analysis System
- Equipment Asset Management
- Fleet / ERP
- Interactive Voice Response (IVR)

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**Enterprise Network**

- Call Management
- Work Order
- AMI / MDM
- Network Model Management
- CIS
- WMS
- Smart Meters
- GIS
- Energy Market
- Enterprise Asset Management
- Enterprise Resource Planning

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**ETAP ADMS**

Advanced Distribution Management System

**DMS**

- Load Flow Analysis
- Short Circuit Analysis
- Fault Detection and Location
- Overload Reduction Switching
- Intelligent Load Shedding
- Automated Switching
- Volt / Var Optimization

**SCADA**

- Data Acquisition
- Data Archiving
- Monitoring & Event Processing
- Supervisory Control & Interlocking
- Inter-Center Communication
- Human Machine Interaction
- Calculation & Reports

**OMS**

- Outage Analysis
- Crew Management
- Trouble Call Management
- Operations Management
- Switch Order Management
- Referral Work Orders

**Visual & Reporting**

- Web Portal
- Dashboards
- HMI

**Mobile**

- Work Orders
- Vehicle Tracking
- Outage Schedule

**Workforce Management**

- Operator Training Simulator
- Crew Management
- Dynamic Scheduling
- Auto Dispatch

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ETAP ADMS bridges the gap between Operations Technology (OT) - Grid assets, infrastructure and applications with Information Technology (IT) - Situational Intelligence for rapid and informed decision making.