

PRISM™ Smart Grid Applications



minsait ACS

An Indra company

PRISM Smart Grid Applications

The Minsait ACS PRISM™ platform includes an extensive suite of applications to enable your transformation to the next generation grid. Minsait ACS applications have all been developed from the ground up to be deployed as a tightly integrated, high performance solution to meet the needs of utilities both large and small.

PRISM SCADA

- SCADA
- Switching Order Management
- Load Management
- Short Term Load Forecasting
- Power Factor Control
- Voltage Reduction
- Historical Data Archiving

PRISM Distribution Management

Visualization Applications

- GUI supporting Very Large Dynamic Maps
- Topology Processor
 - Circuit tracing
 - Loop detection
 - Phase current flow direction
- Synchronized Visualization
 - Geographic view
 - Schematic view
 - Hybrid (GeoSchemaVu)
- Dynamic Network Colorization, by:
 - Outage
 - Fault zone
 - Phase
 - Load/amp violation
 - Planned/abnormal
- ReShape™ (automatic schematic generator)
- Real-time Redline™ (dispatcher temporary topology changes)
- PRISM PlayBack™

Analysis Applications

- Load Estimation
- Distribution State Estimator
- Three Phase Unbalanced Distribution Load Flow
- On-line Dispatcher Load Flow
- Short Circuit Analysis / Fault Location
- Protection Coordination
- Load Forecasting
- Real-time Study Mode

Automation Applications

- Loss Minimization (Capacitor Power Factor Control)
- Voltage Control/CVR
- Integrated Volt/VAr Control (IVVC)
- Fault Location Isolation and Service Restoration (FLISR), supporting:
 - Feeder faults
 - Substation faults
 - Auto return to pre-fault configuration
 - Storm mode
 - Intentional islanding with multi-source loops
- SwitchPlan
 - Switch order requests, creation, approval & execution

Optimization Applications

- Optimal Capacitor Placement
- Optimal Switching, for:
 - Loss minimization
 - Voltage minimization
 - Load balancing
- Optimal Feeder Reconfiguration
- Intelligent Switch Order Creation
 - Isolation/device outage
 - Unplanned/planned
 - Restoration
 - Return to normal

DER Applications

- Renewable Volt/VAr Control (IVVC/r)
- Feeder Injection Test (FIT)
- Maximum Injection Capability (MIC)
- Emergency Load Transfer (ELT)
- Synchronized Load Transfer
- Optimal Feeder Reconfiguration
- Energy Storage Optimization (ESOp)

PRISM Outage Management

- Manual Customer Call Taking/Call Management
- Automatic Prediction Analysis
- Incident and Outage Ticket Generation
- Restoration Switching Plans
- Work Process Management
- Storm Survey Management
- Crew Assignment/Crew Management
- Interactive Voice Response (IVR)
 - Customer calls and crew call-out
- Real-time IEEE 1366 Reliability Indices Calculation
- Web-enabled Public Outage Map
- Social Media Integration
- Water Outage Management (H₂O MS)

PRISM Energy Management

- DASmap™ Unified T&D Model Editor
- State Estimator
- Dispatcher Power Flow
- Contingency Analysis
- Optimal Power Flow
- Training Simulator

PRISM Load Management and Control

- Peak Shaving
- Emergency / Rotational Load Shed
- Scheduled Load Shed
- Rotational Planned Load Control
- Demand Response / Load Reduction
- Direct Load Control
- Transformer Load Survey

PRISM Network Simulation

- XpertSim™ Distribution Dispatcher Training Simulator
 - Control center model
 - Power system model
 - Event scheduler/simulation control (trainer interface)
- Distributed Generation & DER Modeling
 - Load and frequency generator control
 - Microgrid operation
 - Turbines, windmills, PVs, EVs



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PRISM Mobile Applications

- Utility/Crew Tools
 - GridVu Network™ - dynamic system map viewer
 - POWR Mobile™ - outage/non-outage work
 - SwitchPlan Web
- Public Tools
 - GridVu Public™ - outage map

Centrix™ Feeder Automation

- Centrix™ - a model-driven standalone solution for feeder automation, supporting:
 - FLISR (self-healing feeders)
 - Integrated Volt/VAr Control (IVVC)
 - DER applications
 - DNP3 real-time interface to existing systems

PRISM Data Archiving and Analysis

- The PRISM Portal Enterprise™ solution provides:
 - Temporal data historian
 - Hierarchical Utility Data Model™ (UDM)
 - Complex calculation engine and analysis tools
 - Intuitive and flexible report designer
 - Interactive, ad hoc web reports
 - Data visualization and dashboard widgets

Interfaces

- GIS Interface
 - DASmap™ for model/database/display generation
 - ESRI auto extract
 - Intergraph GTech auto extract
 - Smallworld Insync extract
 - Autodesk® Map extract
- IVR/AMI Interface
 - “Last Gasp” outage call/event notification
 - Call back list notification
 - AMI/AMR ‘ping’ confirmation
 - TOU load reporting
- ICCP/IEC 60870-6/TASE.2
- MultiSpeak V4

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