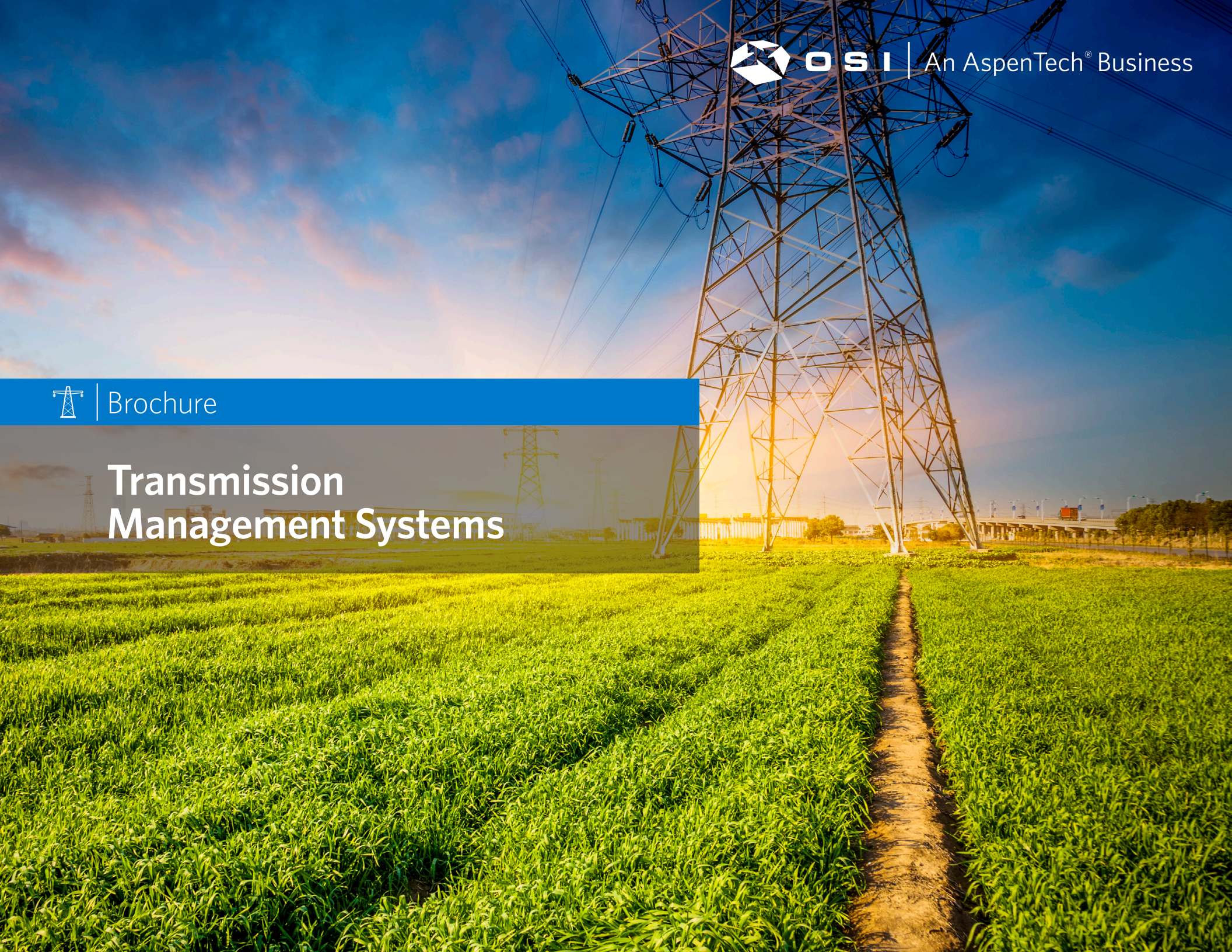
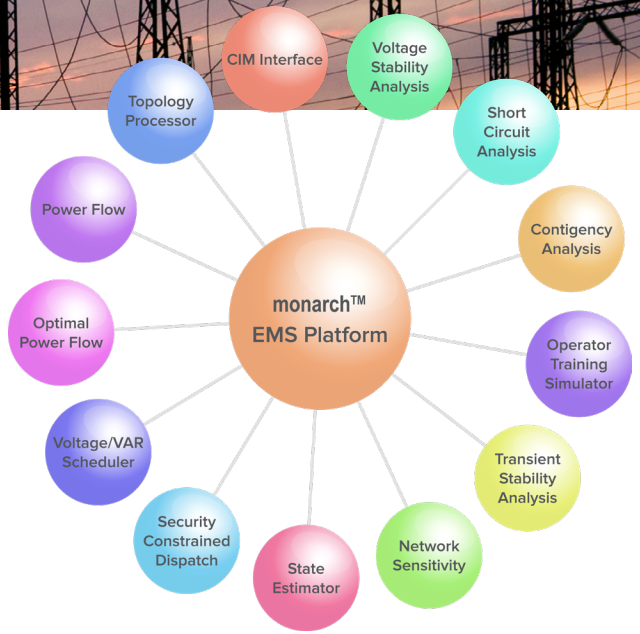

OSI | An AspenTech® Business
Brochure
Transmission
Management Systems

Overview

Transmission owners and operators today face new challenges due to stringent regulatory mandates, system security concerns and inherent capacity limitations in the face of increased transfer demands. Additionally, they are facing growing cost pressures for minimizing or curtailing operational or capital investments in the transmission asset arena. The need for practical, effective and reliable tools to help manage these important assets in real-time has never been stronger.

Effective management of these assets involves efficient and holistic monitoring of the complex transmission network; intelligent and reliable security analysis tools for developing effective strategies to avert, mitigate and cope with system emergencies; and well-rehearsed scenarios and well-trained operators to deal with localized or system-wide emergencies, blackouts, voltage collapse, loss of critical equipment, etc. The blackout of August 14, 2003, and other similar collapses in various grids in Europe and the Americas, greatly underlined the need for strong and reliable transmission monitoring and management tools as well as effective and realistic operator training systems.



OSI has been at the forefront of developing the next generation of effective transmission and energy management system (EMS) applications since the mid 1990s.

OSI's EMS applications framework was developed from the ground up for effective real-time use, as opposed to the industry's practice of adopting off-line system planning tools. Efficient algorithms, effective on-line maintenance tools, intuitive graphics and user interface techniques provide for a powerful security monitoring and analysis environment for transmission operators.

OSI's transmission management and EMS applications have been helping many transmission operators of various size and grid complexity worldwide.

From China's fast-growing and challenging transmission systems to overly burdened transmission systems in Australia, Europe or the Americas, OSI's EMS applications have been the reliable nucleus of many companies' real-time security analysis strategy.

OSI's operator training simulator is the friendliest simulation platform for effective training of system operators. Using detailed dynamic modeling of the power system and an exact replica of the control center environment, system operators can rehearse a full spectrum of system events, emergencies and restoration techniques in the most realistic settings.

Modules

OpenNet™

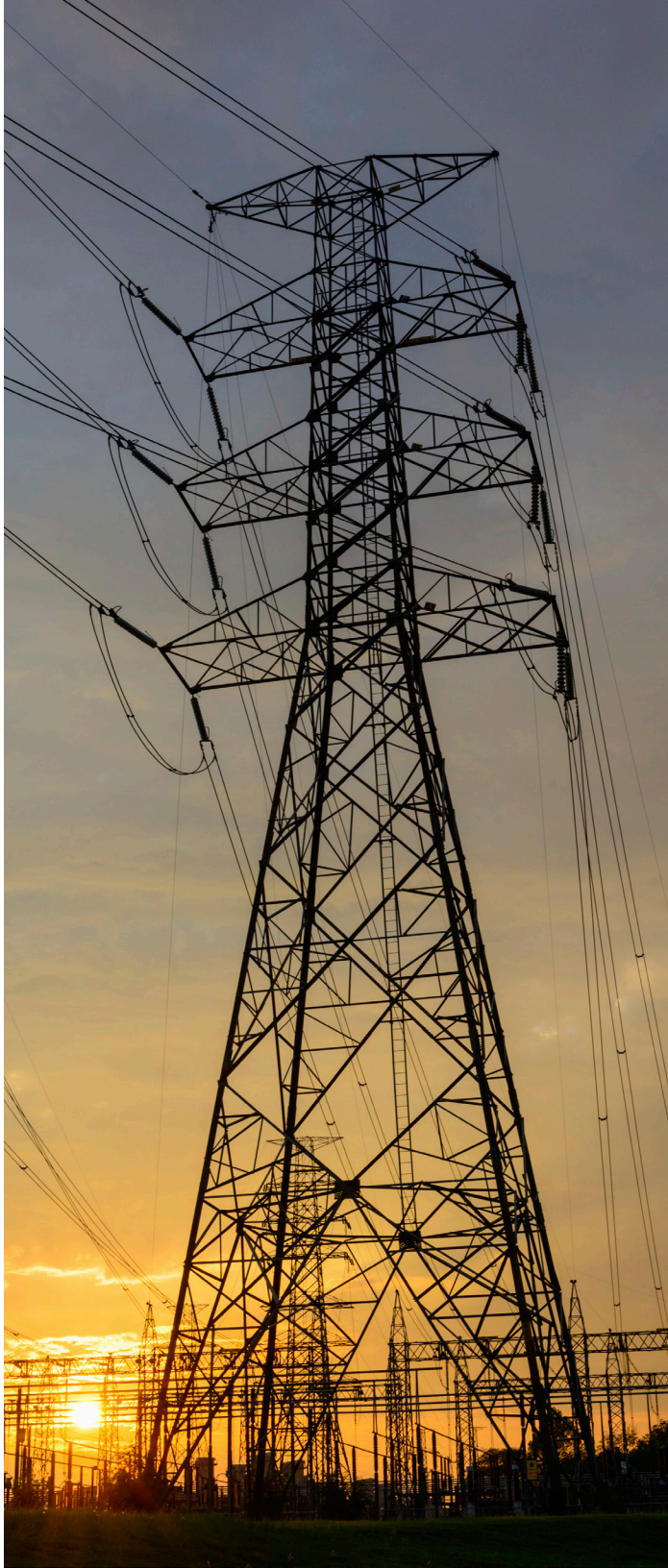
Transmission Network Analysis

OpenNet is a high-performance, network security analysis system that is ideal for online security analysis, situational support, operations planning and offline engineering studies. The functionality of **OpenNet** enables enterprises to transform their decision-making support into a comprehensive, system-based process.

OpenOTS™

Operator Training Simulator

OpenOTS helps you regain control by giving operators firsthand experience with events ranging from system blackouts and component losses to normal and secure operations. **OpenOTS** provides simulated real-time system responses to events that let the operators practice and script their actions without risking the operational integrity of the actual power system.



OpenCIM™

Common Information Model Interface

OpenCIM provides a platform for the bi-directional transfer of data between **monarch** systems and CIM-compliant databases or applications using XML data file exchange. Zero additional effort is required to integrate **monarch** products with existing applications that support CIM standards. CIM XML is the obvious solution for data exchange between different applications.

OpenTSA™

Transient Stability Analysis

OpenTSA is OSI's real-time transient stability analysis product specifically designed to provide users with accurate and up-to-date transient stability margins based on real-time system conditions and featuring full integration with OSI's various transmission network management applications.

OpenVSA™

Voltage Stability Analysis

OpenVSA is OSI's real-time voltage stability analysis product specifically designed to provide users with truly accurate and up-to-date voltage stability and reactive reserve information based on real-time system conditions, featuring full integration with OSI's various transmission network management applications.

OpenAVC™

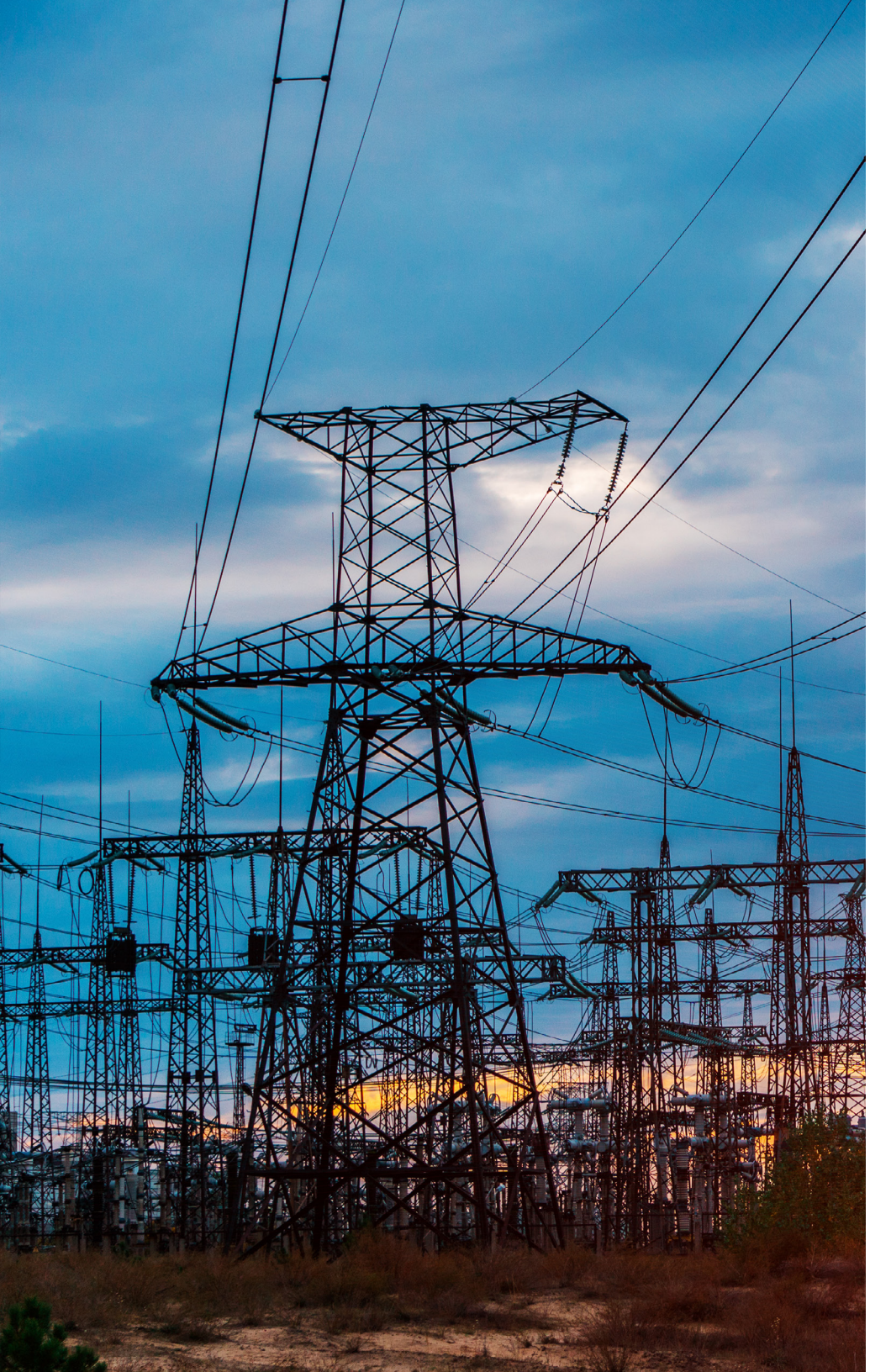
Automatic Voltage/VAR Control

OpenAVC implements voltage and VAR dispatch strategies that span transmission, sub-transmission and distribution networks. **OpenAVC** can also manage voltage, VAR and power factor levels for individual feeders in a distribution network, along with monitoring and controlling branch power factors and bus voltage magnitudes by controlling reactive sources.

OpenEOS™

Equipment Outage Scheduler

OpenEOS enables the scheduling of outages of any power system device including generators, transmission lines, transformers, breakers and switches, loads and reactive compensation devices. With **OpenEOS**, outage schedules are automatically delivered to network analysis and generation planning functions, minimizing the impact of overlooked system events.



OpenSTLF™

Short-Term Load Forecasting

OpenSTLF is a simple and reliable short-term load forecasting tool that relies on neural-network techniques to predict loads with the highest accuracy. **OpenSTLF** supports multiple load areas or feeders and has the capability to forecast up to 35 days into the future. A feature-rich user interface is supported consisting of various tabular and graphical representations.

OSI OutPlan™

Centralized Equipment Outage Request, Planning and Analysis

OSI OutPlan provides an advanced, flexible environment to define, plan, and analyze power system equipment outages at transmission, generation, and distribution levels. **OSI OutPlan** was designed with recognition that industry regulatory changes have developed the need for the establishment of strict guidelines for interdepartmental communications; formal processes for outage submittal, validation, approval, and scheduling; and proactive customer communication for planned service interruptions.

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About Open Systems International

Open Systems International (OSI)—headquartered in Minneapolis, Minnesota—provides open, state-of-the-art and high-performance automation solutions to utilities worldwide. OSI's solutions empower its users to meet their operational challenges, day in and day out, with unsurpassed reliability and a minimal cost of technology ownership and maintenance.

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