With transmission assets operating at or near capacity and with no relief in sight, now more than ever, a solid investment in transmission security is in order at the regional and local level.

Whether you’re part of a large, regional operations center, or a local transmission provider, OSI’s OpenNet™ solution can help you to make the most of your transmission assets with its advanced monitoring, detection and optimization capabilities.

OpenNet is a high performance, Network Security Analysis system that is ideal for online security analysis, situational awareness support, operations planning and offline engineering studies. The functionality of OpenNet allows enterprises to transform their decision making support, from a points-based, into a comprehensive, system-based process.

In order to meet a variety of user needs, OpenNet has been designed with a modular product approach and can be easily customized to create a specially tailored product suite that will meet your specific requirements without being weighed down by superfluous functionality.

Available features of the OpenNet solution include:

- Network Topology Processor
- Power Flow
- Contingency Analysis and Screening
- State Estimator
- Optimal Power Flow
- Security Dispatch
- Voltage/Var dispatch
- Short Circuit Analysis
- Loss Penalty Factor Calculation
- Available Transfer Capability
- Voltage Stability Analysis

The underlying OpenNet network model is easy to build and maintain. The modeling capabilities of OpenNet include:

- Remedial Action Schemes
- DC Terminals Static Var Compensators
- Constant Impedance Loads
- Flow Corridors
- Generator Reactive Reserve Groups
For convenience, the initial network model can be imported into OpenNet from several standardized formats. Likewise, exporting to popular formats is supported to facilitate the exchange of network and solution data with other operational and planning entities. The network model can be imported and exported using the standard CIM/XML, IEEE or PSS/E formats.

OpenNet supports user-entered equipment energized state changes, either by switching operation, whereby the model has switch-level detail, or by changing the individual equipment status where the model is at a bus-level detail. This allows for the external model representations to be imported via PSS/E format without the need for further switch-level definition.

A comprehensive user interface is also provided, allowing various views of solution data. Network solution data (resulting from both real-time and offline studies) can be imposed directly on top of familiar one-line diagrams. Background watermarks clearly distinguish the shared one-line diagrams and tabular displays as being real-time SCADA, State Estimator or study mode.

For a more detailed review of analysis results, a complete set of tabular displays itemizes granular details. Tabular displays are easily sorted and filtered with a few clicks, allowing users to quickly focus on the relevant data. The equipment summary displays allow drill-down detail for individual equipments.

With OSI's OpenView Lite™ remote console GUI, OpenNet displays can be securely viewed by remote and enterprise users, depending on permissions.

OpenNet can be easily interfaced with any existing SCADA system to provide online security monitoring, analysis and situational awareness support. Through OSI's standard and open data interface protocol, input and output of data can be efficiently exchanged with virtually any SCADA system.

The high performance and economical OpenNet solution can be readily deployed as part of a new SCADA system or as a standalone upgrade. OpenNet delivers what you need for today's overstressed operational environment.