

OpenSOM

Switching Order Management

Knowing what you have to do is one thing, formulating a safe and effective implementation strategy is quite another. OSI's **OpenSOM™** provides the tools needed to formulate such switching strategies, allowing the operator to verify actions *before* the order is dispatched.

OpenSOM uses a relational database management system (RDBMS) as its data repository for all switching instructions.

The **OpenSOM** application is Web enabled. Its backend database is relational and a Web browser is used as the operator interface. Hence, Operator access may be provided using the Internet or an intranet for data transport. The user interacts with the system by formulating switching scenarios via the Web browser client interface. The server side application is a Java application, which processes the Switching Order request, handles the database interactions and records proper events in the system.

Different levels of responsibility and authority are applied to different functions within **OpenSOM**. Thus, the user of the product may be categorized as follows:

- **System Operator:** Formulates strategies and verifies the expected response.
- **Authority:** Reviews, re-verifies and approves switch orders.
- **Crew:** Implements switch orders. If wireless communication is available, real-time updates as to the status of the order may be fed back to the control center.

The screenshot displays the 'Switching Order Management' application. The top section shows a table of 'Switch Orders - All' with columns for ID, Name, Area, Status, Approval Status, and Actual End. Below this, a detailed view for 'Order_5' is shown, including its purpose ('Removing transformer 1 from Plymouth substation'), planned and actual start/end times, and a list of 'De-Energize Steps' such as 'Check Open', 'Close', 'Check Close', 'Open', and 'Check Open' for various devices.

This screenshot shows the 'Templates' section of the application. A search bar contains the text 'Stop Device contains 11'. Below the search bar is a table listing templates with columns for Name, Device, Area, and Remarks. A detailed view for 'Template_1' is shown below, listing 'Template Steps' such as 'Close', 'Delay', and 'Check Close' for device 'CB A552'.

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OpenSOM – Switching Order Management

The primary means of defining a switching order is through “point and click” interaction with graphical applications such as **OpenView™** to perform:

- Device Selection as input to **OpenSOM** application.
- Visual Representation to check the network connectivity.

Once a switch order is established, it may be validated against real-time or postulated operating conditions via an interface to the network analysis tools thus allowing for pre-verification of the order before it is dispatched.

In addition to generating switching orders for manual implementation (via a crew), **OpenSOM** is capable of sending automatic control signals via SCADA in order to perform and verify automatic switching operations.

