

PSIcommand

Switching / Outage management Integrated solution for control centers and operations



PSI 



Switching and outage management

Ever more dynamic requests in electrical networks collide increasingly with fixed and long-term planning processes. The switching management optimizes the complex process from the annual scheduling to the execution of every single switching operation.

Create a win-win situation for control center and operations by using the PSI switching and outage management



Increase your efficiency by using artificial intelligence for the annual scheduling and by digital integration of the field engineers with the network control center.



Shorten the staff idle times and accelerate the processes from the planned outage request to its execution.



Provide maximum workplace quality to your staff including on-site decision making and reduced noise and stress levels in the control center.

+ More dynamic switching process

PSI switching / outage management

Win-win for control center and operations

The energy transition changes the traditional network management, even for medium voltage and low voltage. This requires much more knowledge about the dynamic state of the network and the effect of the scheduled measures. The execution of maintenance activities is increasingly impeded by high network load fluctuation.

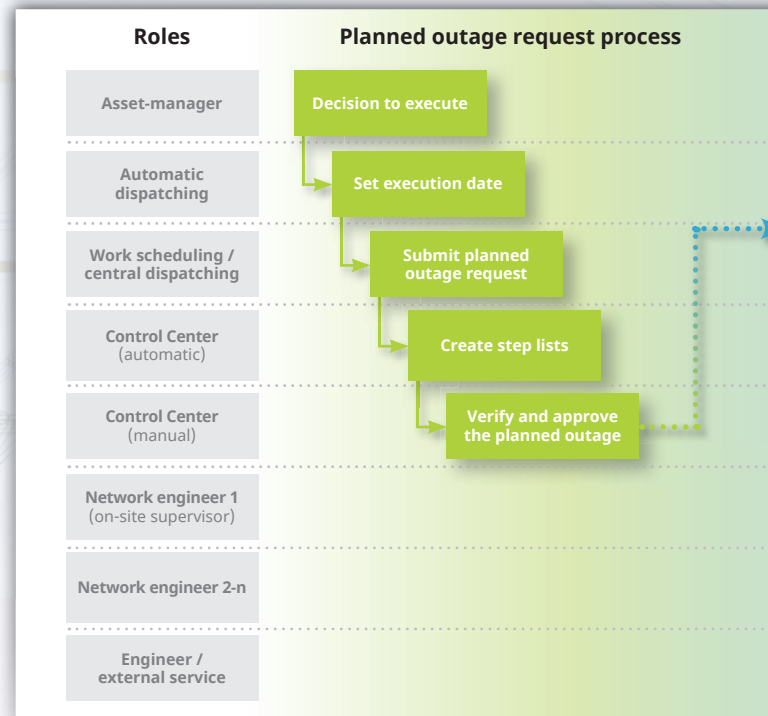
The planned outage management process has often matured over time but no longer meets today's requirements. External factors such as decentral infeeds and management of larger network areas require reevaluation.

Continuing the established processes results in increased but avoidable cost. For example, the switching coordination by phone or radio results in a significant workload for the control center and in long wait times at the construction site. More and more often, bottlenecks in the control center or dynamic network load changes result in canceled switching operations. In addition to the cancellation costs, the cancellations also result in delayed maintenance of heavily utilized system elements.

In spite of the high degree of interdependency, the network control system and the workforce management system are usually two stand-alone systems.

The switching operations are the link between these two systems.

With PSIcontrol and PSIconmand, PSI provides an agile solution which integrates all process steps from the scheduling to the execution. The planned outage management module can be used as stand-alone, in combination with mobile switching operations, or as part of a full workforce management system.



The integration in the workforce management system PSIconmand provides you with the following benefits:

- + Reduction of switching operations by long-term order bundling
- + Automatic annual scheduling based on the capacity scheduling

Planned outage request process

Optimization potential

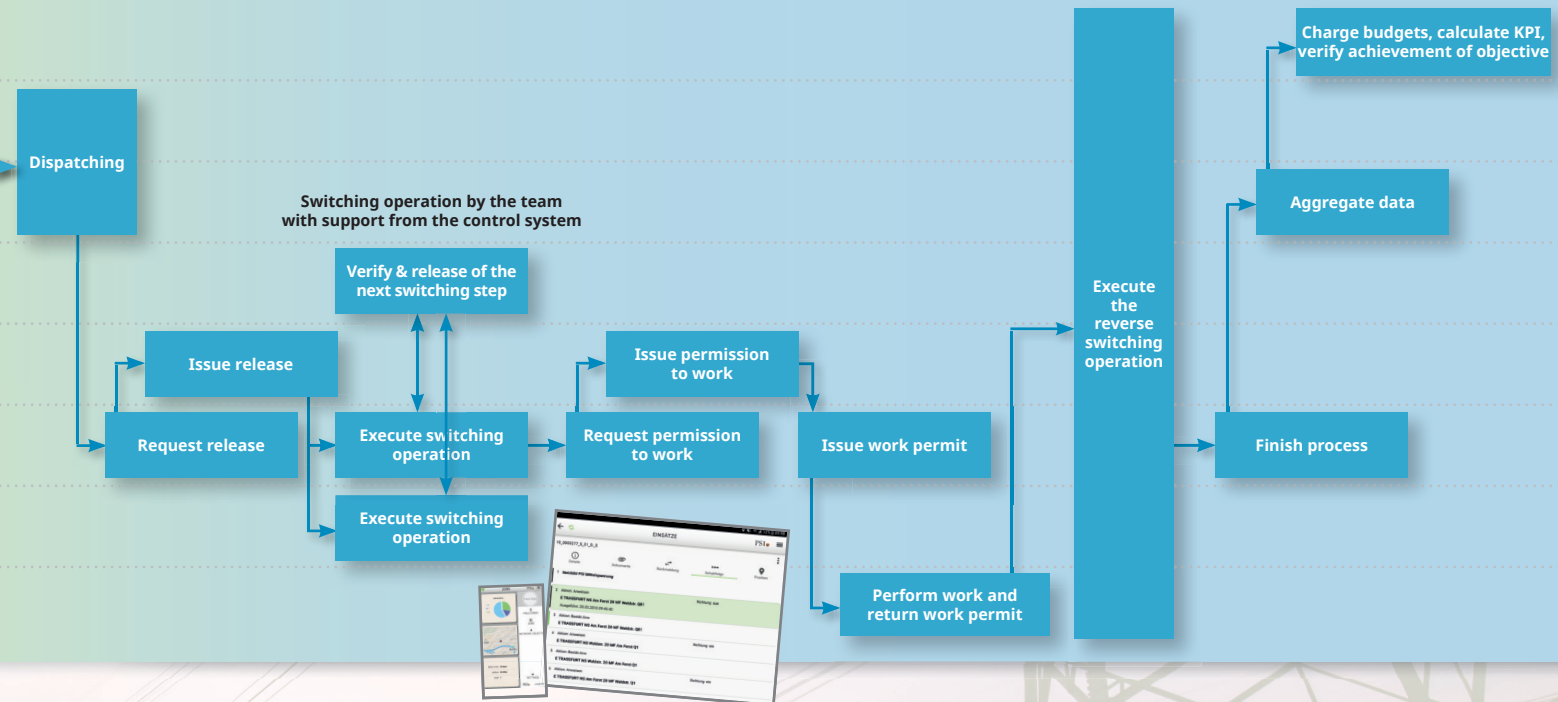
- + Integration of the switching management in the work scheduling
- + Seamless verification in the control system
- + Automatic determination of the required deenergized area
- + Generation of step lists with required switching operations
- + Collisions analysis
- + Automatic annual scheduling
- + Flexible coordination of external companies

Switching process

Optimization potential

- + Digital exchange of information between control center and engineer
- + Workload reduction for control center staff
- + Wait time reduction for engineers
- + Increased operational capability for engineer
- + Simple coordination of switching operations involving multiple teams
- + Realtime acquisition of switching states
- + Increased knowledge of network state

Switching process



Work securely and independently

On the day of the switching operation, the engineer receives on his mobile device the switching job including detail information and a step list with the steps which are required for the switching operation.

Due to the optimal preparation, the work in the control center is reduced to a one-time release of the switching operation. That means time savings in the control center which can now manage more switching operations and for the team on site which can now reliably communicate with the control center and then work independently.

After verification of the correct location, for example by a QR code scan, and possible interlocks in the control system, the release for the switching operation is issued.

Then the engineers perform the switching operation independently in compliance with all safety and documentation guidelines. The switching coordination is supported electronically by the network control system; for simple switching operations, it is no longer required at all.

When the switching job requires switching operations at multiple locations, then multiple teams can work in synchronization based on coordinated step lists. The network control system processes the job reports of the engineers like control operations. The control center has to intervene only when interlocks occur due to unexpected changes in the network.



Your benefits

- + Increased staff satisfaction by improved work quality in operations and the control center
- + Increased efficiency by acceleration of the request, approval, and feedback processes
- + Increased productivity by seamless process support including in the control center
- + Reduced number of switching operations by long-term order bundling
- + Basis for improved network calculations in medium voltage networks due to better knowledge of the network state
- + Minimization of outage times due to faster service restoration

Would you like to get more information about switching management?

We look forward to meet you personally for an in-depth consultation.

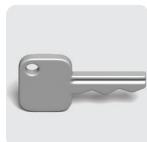
... just contact us.

We are ISO 27001 certified

Information security is a top priority of PSI. The core values „Confidentiality, integrity, and availability“ are key to our internal business processes and form the basis for our commitment to our customers.

PSI has implemented an information security management which complies with the international DIN ISO/IEC 27001.

- + TÜV Süd performed the test and issued the certificate in June 2016 which was confirmed in September 2017.



PSI products - Efficient solutions

PSIcontrol - High-performance-control systems

- + Highest supply quality and optimal economic efficiency



PSIcommand - Workforce management

- + A dynamic system for efficient asset service for infrastructures

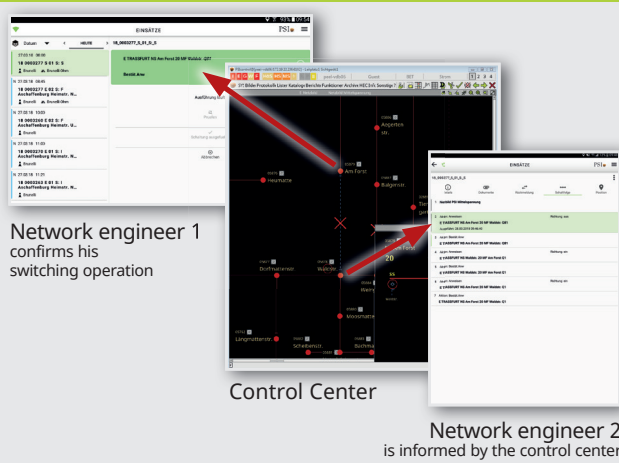


PSIpassage - Network utilization management

- + Maximum automation for communication, processing, and monitoring of time series for the liberalized energy markets

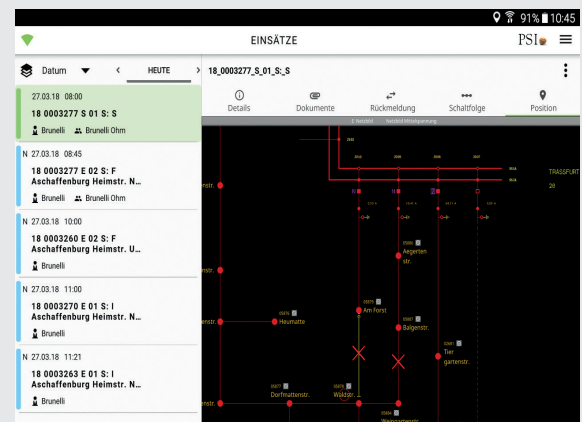


Switching as a team



- + Realtime synchronization between the control center and all mobile field crews which are involved in the switching process
- + Verification of the correct location
- + Interlock checks in the control system
- + Job reports are processed like control operations

Mobile and informed



- + Information based on states, measured values, calculated values, and topological coloring
- + Intuitive navigation
- + Common basis for communication for operations and control center
- + Independent feedback of the effects of the switching operations



The switching management by PSI provides you with a tool for comprehensive support of your processes.

The holistic integration of PSIcontrol and PSIcommand enables you to focus on your core competencies.

In particular, you benefit from the increased time optimization, flexibility, and error reduction in your switching operations.



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