

Westenergie and EuroSkyPark: Entire Hub Migration Successfully Completed



Westenergie is the largest regional energy service and infrastructure provider in Germany. The company uses EuroSkyPark (ESP) satellite connections for the remote monitoring and control of critical infrastructure such as substations and wind farms. Together, ESP and Westenergie have now migrated the systems to a new hub technology in a planned and controlled process.

Westenergie supplies over 6.6 million people in North Rhine-Westphalia, Rhineland-Palatinate and Lower Saxony with electricity, gas and water every day – they all depend on a permanently secure supply. This is why Westenergie has been relying on ESP's highly stable satellite solutions for the remote monitoring and control of critical infrastructures such as substations and wind farms since 2008.

The Saarbrücken-based company provides the customer with a serial SCADA end-to-end connection (IEC 60870-5-101) via satellite and also supplies a dashboard that enables the customer to closely monitor the status of their systems.



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Julius Schaad, Project Manager

Migration during regular operation

As in all technical systems and installations, wear and tear along with technological innovations in satellite technology make it necessary to sooner or later migrate entire systems. “The reason for the hub migration at Westenergie is the switch to the next generation of teleports and new geostationary satellites. The current satellite period is due to expire soon,” explains Thomas Maul, CEO of ESP. “This is a quite normal process – hubs and satellites have a very long life expectancy, but after over 10 years they simply have to be replaced. However, in order for the interaction with the new satellite to function properly in the future, the hub and all field stations must also be migrated.”

The hub is something like the centerpiece for communication with the satellite. A migration during ongoing operations is tantamount to open-heart surgery and requires long and precise preparation: planning,

link budget, training, network concept and procurement took only a few months in this case, despite everything. ESP now operates the systems on its own ESP Europe1 satellite transponder.

A particular challenge: hundreds of field stations had to be integrated into the new hub and the new network structure during ongoing operations. Subsequently, the modified API interface for the customer dashboard was implemented. The new hub is managed exclusively by ESP. “We carried out the switchover in a very orderly process together with Westenergie, remotely from Saarbrücken,” says Julius Schaad, Project Manager with overall responsibility, describing the process and once again emphasizing the good and close cooperation with the customer. “Westenergie’s control center determined which systems could be migrated and at what time, and we then implemented this. It went hand in hand.”

Tight time slot

As is so often the case with such projects, the time frame for the actual switchover presented a challenge. The lead time for technical and coordination preparations lasted from the end of March to the beginning of April, during which time the hub, including the firewall, was configured, tested and put into operation. Between April 17 and 28, the field stations were then migrated on a daily basis by three employees from ESP’s Network Operation Center. “A very tight schedule,” Julius Schaad knows from experience, “but absolutely feasible, as this example shows. Even though a hub migration during ongoing operations is no small matter – for us, it’s part of everyday business.”

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