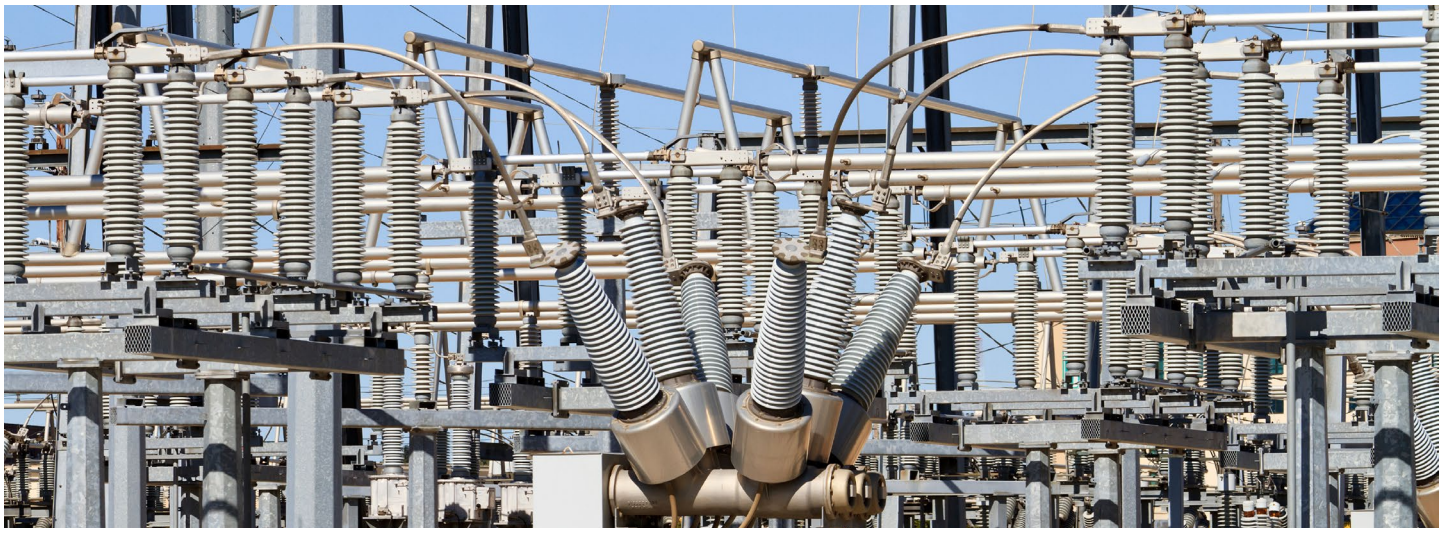
VIRTUAL ACCESS

SMART NETWORK SOLUTIONS
FOR SERVICE PROVIDERS

SCADA Protocol Conversion



Client Requirement Summary

- IEC101, IEC104, DNP3
- RS232, RS485
- Scalable to tens of thousands of devices
- IEC101/104, DNP3/104 conversion at remote site
- Deploy to same device everywhere to simplify maintenance
- Resilient communication paths
- Substation-hardened device
- Two seconds last GASP power

Key Benefits

- IEC101/104 conversion & DNP3 to IEC104 conversion
- Single device provides required functions
- Dual SIM, dual antenna, 3G/4G, DSL option
- IP-rated, rugged device
- Last GASP message for power failure
- Rugged: high isolation options on the PSU and interfaces
- Vibration and mechanical to EN standards

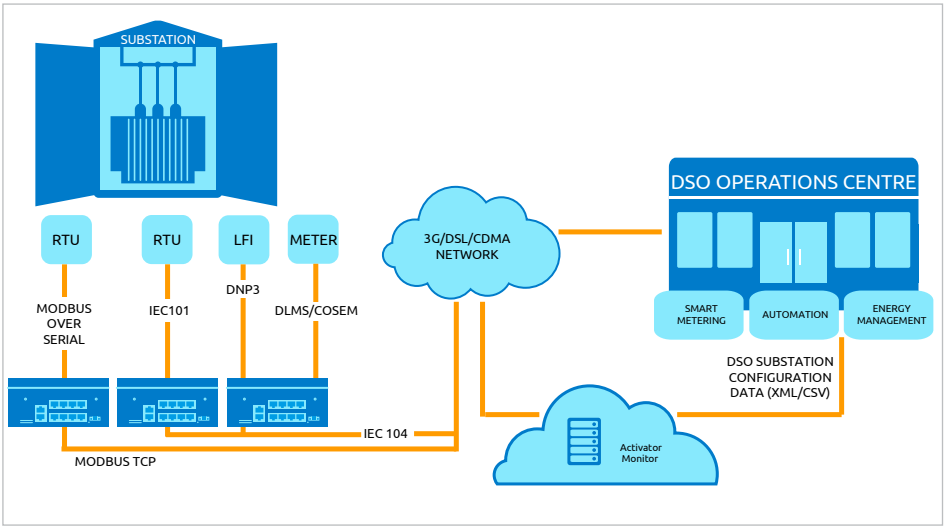
Requirement

A Distribution System Operator (DSO) required multi-path communications for its substation smart grid, distribution automation and SCADA functions. The systems supported included RTUs, LFIs and DTCs, using a mixture of IEC101, DNP3 and IEC104 protocols. The substation router was required to support all these functions in a single device.

Virtual Access Solution

The client chose VA substation-hardened routers with dual path 3G/4G, advanced security and Activator for service automation. Virtual Access provides a single device that can be used to convert IEC101 and DNP3 to IEC104 with integrated serial RS232, RS485, Ethernet, wireless broadband and optional DSL.

A key difference in the solution was the carrier-grade Activator provisioning and monitoring system designed to scale to tens of thousands of devices. This means that devices do not need to be pre-configured and can be installed without staff skilled in networking. The solution allowed the DSO to maximise the level of process and field deployment automation by integrating with northbound IT systems and enabled devices behind the VA router in the substations' cabinets to be configured identically, while still being individually addressable from the central SCADA systems.



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