CASE STUDY

Helsinki Metro and Tramway Secured

Netcon 500 provides secure control and monitoring of the Helsinki Metro and Tramway electricity distribution networks.

CYBER-SECURE AUTOMATION FOR MASS TRANSIT POWER DISTRIBUTION NETWORKS

Since 2002, Netcontrol has been responsible for the complete automation of the Helsinki Metro and Tramway power distribution networks. Netcontrol's Netcon 3000 SCADA system at the control centre combined with our Netcon 500 gateway/RTU units in the field provides the operators of each network a complete monitoring and telecontrol solution.

HELSINKI METRO

Currently the Helsinki Metro utilises the following equipment:

- a Netcon 3000 SCADA system combined with a redundant, hot standby Gateway Server as the front end
- 50+ Netcon 500 RTUs/gateways along the track using the IEC 60870-5-104 protocol on a fibreoptic network to communicate with the SCADA system.

HELSINKI TRAMWAY

The Helsinki Tramway employs similar equipment:

- a Netcon 3000 SCADA with a redundant, hot standby Gateway Server
- 25+ Netcon 500 RTUs/gateways using IEC 60870-5-104 and copper twisted-pair dedicated lines for SCADA communication.

GROWTH AND EVOLUTION

The Metro and Tramway first shared a common Netcon 3000 SCADA system. However, since both rail networks have been expanding, each was recently given its own Netcon 3000 SCADA. Like the associated Gateway Servers, both SCADA servers are redundant, configured for full hot-standby operation. This makes for a reliable, high-availability solution.

At the same time, Netcontrol has been supplying additional Netcon 500 units and continuing to support the Helsinki rail systems with their requirements for secure telecontrol. Netcontrol's solution provides for such expansion in a seamless way.