

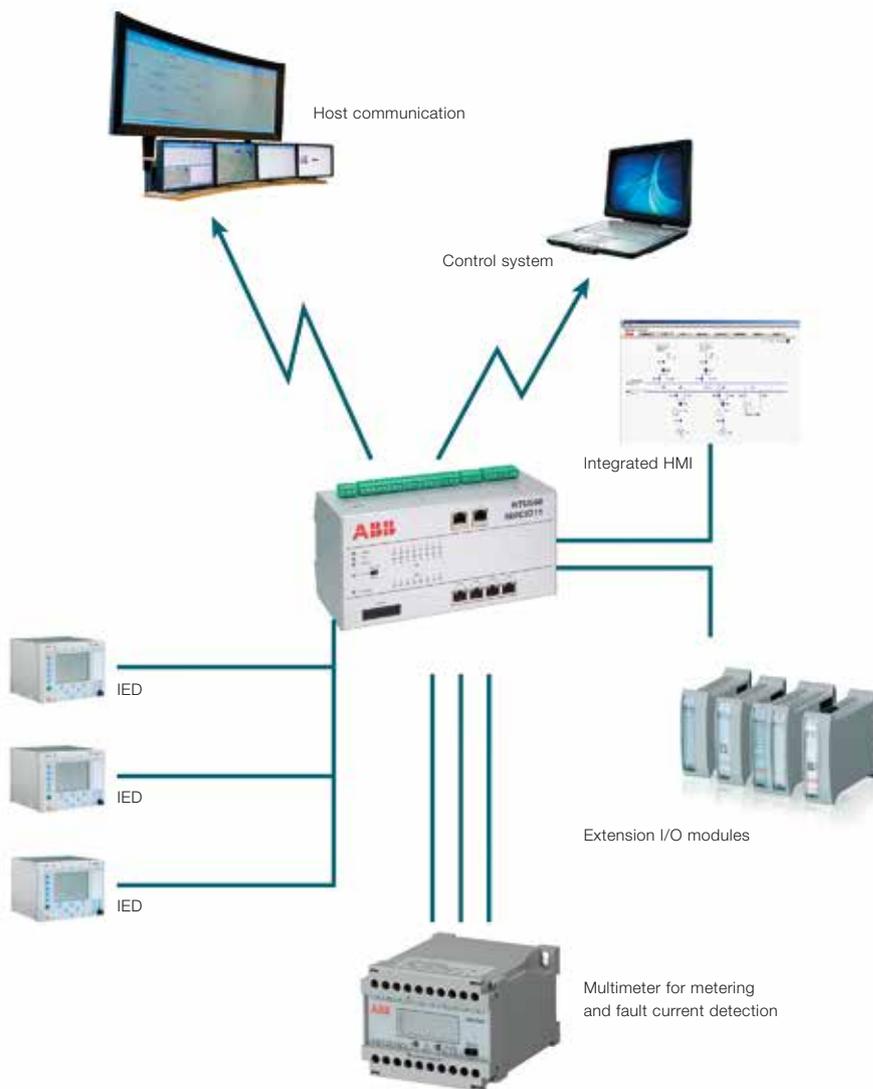
## ffwd



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# ABB remote terminal units to play vital role in telent's Network Rail SCADA renewal project



Typical RTU configuration



**Hundreds of ABB's new generation RTU 540 remote terminal units (RTUs) will be integrated into Network Rail substations during a project being carried out by telent to renew the SCADA (Supervisory Control and Data Acquisition) system in the rail operator's Southern Electric region.**

The new SCADA master station system will control traction power and distribution for Network Rail as an essential part of the planned electrification investment being made in the UK Rail network. The new system will provide the complete control interface for Network Rail to monitor the network remotely, carry out isolations and implement automatic execution and service restoration.

The RTUs will provide the vital telemetry and remote control links to the main traction substation equipment, including transformers, rectifiers, switchgear and circuit breakers as well as important ancillary services such as door entry alarms and other

security functions. Using high-speed fibre optic connectivity, the RTUs will interface with telent's head end SCADA system in Network Rail's control centre.

telent and Network Rail have standardised on the RTU 540 – the medium size module in ABB's new generation 500 series – as it provides a flexible, scalable and compact solution that delivers maximum functionality within the restricted space available in trackside substation enclosures. The RTUs will use classic hard-wired inputs while at the same time utilising the DNP 3.0 protocol for communications with the telent Control centres. However, they also have built-in cyber security features and capability to interface with equipment based on the IEC 61850 standard for substation communications, ensuring they are totally future-proofed to operate with any new primary equipment that incorporates modern IEDs (intelligent electronic devices).

Danny Lyonette, ABB UK Sales & Marketing Manager for Substation Automation said: "Network Rail's new SCADA is a very

prestigious project that provides the first large scale UK deployment for our new generation RTU 540 modules. Our selection was based on the successful completion of telent's stringent approval process, one of the key factors was the module's compact design, capable of handling up to 5,000 information points."

telent is due to complete the project in 2017 and ABB has already supplied the first 20 RTU 540s out of a total of 242 RTU 540 modules for traction substations across the region, which covers south London, Dorset, East and West Sussex, Hampshire and Kent where trains are powered by a 750 V DC supply to the third rail.