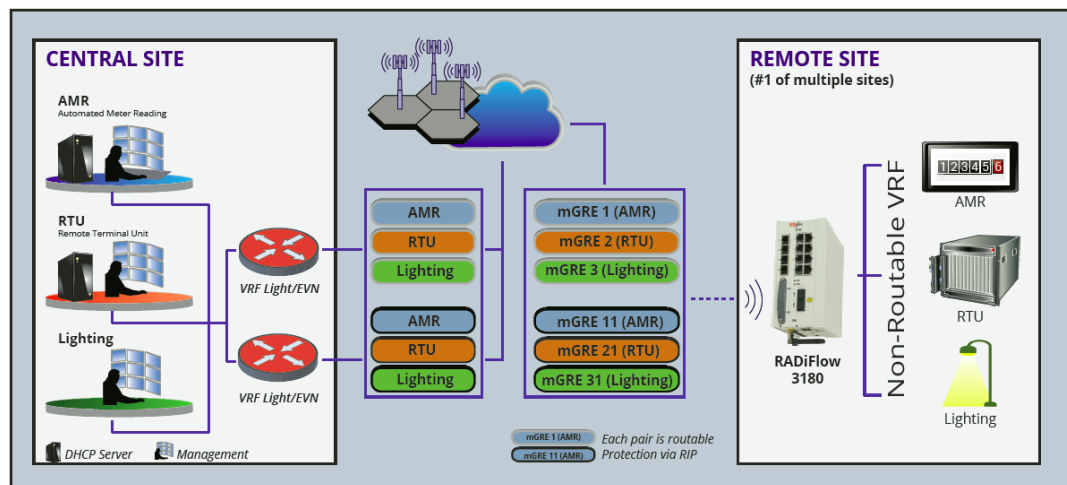


## Secondary Substation Communication in a Smart Grid Network

Advanced Power Distribution Operator (DSOs) are deploying smart grid networks. At the distribution layer, the process included installation of smart metering concentrators and grid automation devices in the secondary substations sites. These sites are usually very small, distributed and with limited wire-line connectivity, this kind of deployment is exposing the smart grid network for cyber-attack from various type such as man-in-the-middle, malicious software upgrade for one of devices inside the remote site (PLC, CCTV, etc).



*The Radiflow 3180 secure ruggedized compact switch is ideally suited for deployment in secondary substation sites:*

- A **compact ruggedized router** designed for installation in harsh environmental conditions and in compliance with IEC 61850-3/IEEE 1613 requirements
- Integrated **Dual cellular modem** which enables redundant connectivity
- Validation of the SCADA behavior per user using **per-port DPI firewall**
- **Identity management** for user authorizations for device access with **full auditing**
- **IPsec VPN** for inter-site secure connectivity over cellular and fiber
- Supports **Ethernet and Serial interfaces** to connect modern and legacy metering and automation devices
- Supports **SCADA protocol gateway** for migrating legacy RTUs to an IP-based SCADA system
- **8 PoE+ ports** to power CCTV cameras and radio equipment