

4G/5G Field Area Networking for a Greener, Safer, More Resilient Electric Grid



Electric utility operators like you are under more pressure than ever before. In order to meet aggressive decarbonization mandates, you must modernize aging infrastructure and decentralize the grid to incorporate green Distributed Energy Resources (DER) located anywhere in your service area. Furthermore, you need to balance the grid to meet varying demand with changing supply from green DER. Despite these challenges, customer satisfaction and grid resilience must also remain top of mind. With extreme weather events like wildfires becoming increasingly common and disruptive, it is essential to reduce the risk that the grid poses to both customers and staff in order to foster a more resilient grid in which outages impact a minimal number of community members and recovery is expedited.

Grid balancing, decarbonization goals, and resilience improvements all demand mission critical low latency private networking for SCADA enabled Distribution Automation (DA). As such, these goals cannot be met without an upgrade to

your wireless Field Area Network (FAN) infrastructure. Today, your FAN relies on non-cellular technologies (e.g. DMR, Wi-Fi Meshes) that cannot simultaneously meet the latency requirements of SCADA – which is required for DA, DER, and ‘Fault Location, Isolation & Service Restoration (FLISR) – as well as the bandwidth needs of in-demand use-cases like wildfire video analytics applications and connected remote workers. While 4G/5G from an MNO could cover much of the service area and support the QoS and bandwidth needs of all these applications, you still require network layer visibility and control parity with your existing FAN to meet internal cyber-security requirements. Unfortunately, MNOs are unable to supply the real-time network control you require. The Expeto NeXtworking™ platform is the only 3G/4G/5G FAN that gives you the uniform network layer visibility and control over MNOs and private radios you need to securely connect DERs, DA, sensors, wildfire video cameras and worker devices throughout your entire service area.

4G/5G Networking Across Service Area for 90% Less

Get service area wide coverage & network control over MNO and deploy our Private Mobile Network (PMN) only where greater coverage is needed (e.g. inside substations). This saves you 90% relative to the TCO of PMN radios covering your entire service area.

Accelerate Decarbonization Timelines

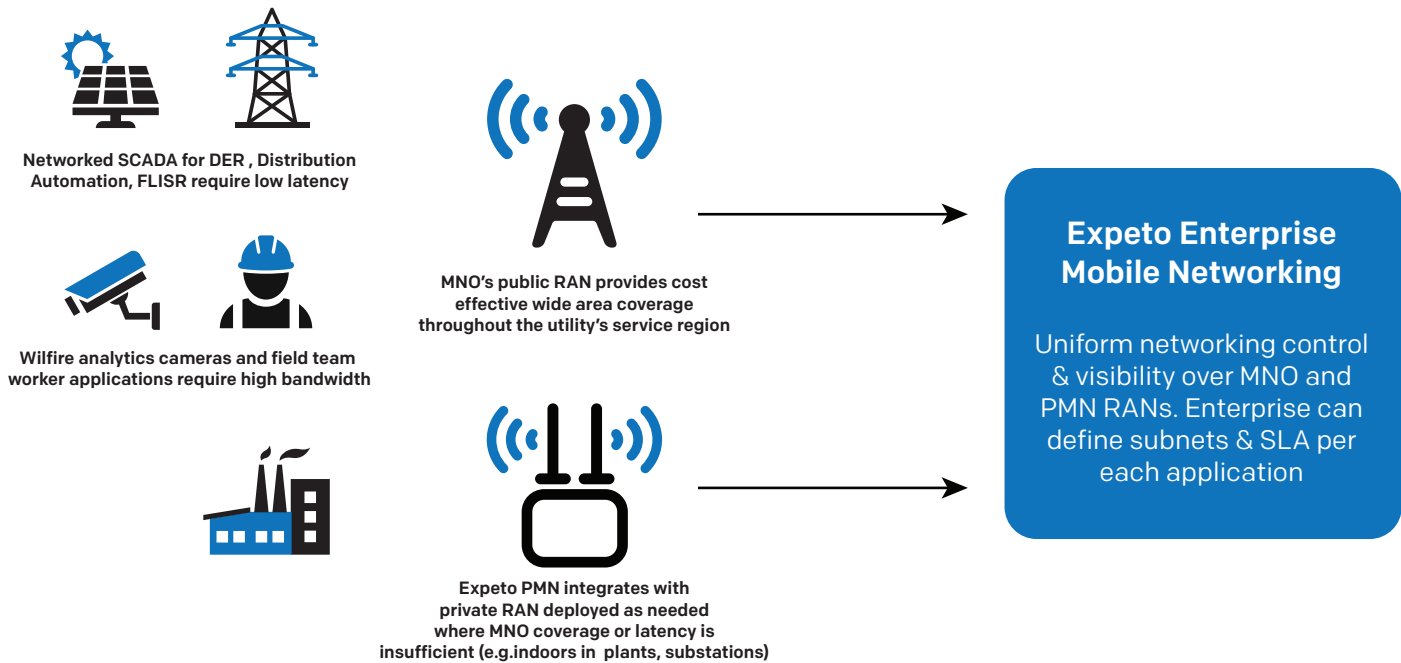
DER (e.g. PV, solar, storage) can be located anywhere in your service area. With Expeto, you can securely connect DER “tie-ins” using MNO coverage while maintaining networking control.

Increase Grid Resiliency

Extend networking control and visibility over MNOs to securely connect sensors and Distribution Automation (DA) needed to detect and rapidly recover from service impacting faults.

Reduce Risk of Fires & Increase Safety

Expeto enables the connection of fire risk detecting video cameras anywhere in your service area. Field worker devices can get real-time grid data to maximize personal safety while improving productivity.



Why Expeto?

Expeto's NeXtworking platform for Enterprise Mobile Networking is purpose-built for converged mobile networking over public and private Radio Access Networks (RANs) as well as hybrid cloud and edge computing. Deployed as containerized software that installs behind your firewall or in your Virtual Private Cloud (VPC), the Expeto platform allows you to create Enterprise Mobile Networks (EMNs) with end-to-end data path control over public or private RANs. Additional granular networking control is provided through the xControl Center, allowing you to create dynamic network segments, prioritize traffic or select networks for redundant, automatic failover. Now you have the SIM management and control to assign IP addresses, create wireless vLANs and assign devices to prioritize traffic without involvement or disruption from your wireless provider.

- » **"Defense in Depth"** with End-to-end data path protection and control across all networks, clouds, SIMs and enterprise segments.
- » **Open standards-based on 3GPP** solution that works with any hardware, device or cloud.
- » **Private IP Addressing** gives full control of IPs and the ability to remain consistent across various infrastructure (private, public, vLAN, network segmentation)
- » **Deployed inside your firewall or VPC** to become an extension of your corporate security architecture — no need to change anything from a security perspective.
- » **Quality of Service (QoS)** provides the ability to configure end-to-end and dynamically change priorities based on situation, use case or user needs.
- » **Manage all wireless networks as one** with the ability to deploy, provision & manage services and devices across all networks remotely — one single pane of glass regardless of carrier, cloud or device.
- » **Redundant failover** to keep your data safe and provide resiliency against natural disasters, catastrophic events or application glitches that may cause network outages.