

Remote Oil & Gas Operations

Offshore platforms and isolated drilling sites often operate in network-challenged areas where traditional connectivity is limited. 5G at the edge ensures high-speed data flow between sensors, personnel, and control systems, supporting real-time safety, monitoring, and maintenance operations.

Key Benefits

- > **Real-Time Monitoring:** Continuously tracks pressure, temperature, and flow metrics to avoid failures.
- > **Improved Worker Safety:** Wearables and smart cameras detect environmental hazards and worker health risks.
- > **Reduced Downtime:** Predictive analytics powered by edge AI identify issues before they cause costly shutdowns.
- > **Lower Operational Costs:** Remote diagnostics reduce the need for physical inspections and helicopter trips.
- > **Faster Emergency Response:** Edge data provides real-time alerts and system shutdowns when hazardous events occur.
- > **Better Compliance and Reporting:** On-site data collection ensures accurate and timely regulatory documentation.



Intro to Edge Computing

In today's fast-evolving landscape, the need for real-time data processing and actionable insights at the edge has become a critical priority for mission-critical operations. Odin's Edge, powered by Norseman Defense Technologies, is designed to address these demands by delivering scalable, high-performance computing solutions in ruggedized, portable environments. This solution brings unparalleled flexibility, enabling data-driven decisions at the tactical edge while ensuring robust security and seamless scalability.

Core Capabilities:

- > **Ruggedized Edge Infrastructure:** Withstands harsh weather, vibration, and high temperatures typical in oil & gas sites.
- > **Private 5G Network Deployment:** Ensures secure, high-speed communication even in isolated locations.
- > **Integration with SCADA Systems:** Enables seamless data acquisition, control, and system-wide visibility.
- > **Edge AI and ML Processing:** Analyzes anomaly patterns locally to detect early signs of equipment wear or failure.
- > **Drone and Robot Support:** Enables autonomous inspection and maintenance in hazardous areas.
- > **Satellite and Microwave Backhaul Integration:** Extends connectivity where terrestrial links are unavailable.