

Predictive Maintenance for Mission-Critical Assets

Edge-deployment allow for continuously monitors mechanical systems and environmental conditions to detect early signs of failure, helping prevent unplanned downtime and ensuring asset longevity.

Key Capabilities:

Maintenance teams can leverage edge analytics on components (e.g., engines, landing gear) to predict failures and optimize service intervals.

- > **Increased Uptime** – Detect issues before they result in failure, reducing operational downtime.
- > **Lower Maintenance Costs** – Preventative interventions are less costly than reactive repairs.
- > **Improved Mission Readiness** – Maximizes availability of mission-critical vehicles or machinery.
- > **Data-Driven Decision Making** – Historical trends and real-time insights optimize logistics planning.
- > **Reduces Human Error** – Automates diagnosis and alerts, reducing dependency on manual inspections.



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:

- > **Sensor Integration Framework** – Supports real-time feeds from vibration, thermal, pressure, and acoustic sensors.
- > **AI-Based Failure Prediction Models** – Uses historical and live data to anticipate wear and performance drops.
- > **Digital Twin Syncing** – Links edge systems to virtual models for simulation and lifecycle analysis.
- > **Alert Routing and Escalation** – Connects with maintenance software for tasking and follow-up.
- > **Offline Logging and Sync** – Stores diagnostics locally and syncs when secure connectivity is available.