

Meet the Ovation™ Predictive Maintenance Agent

The **Ovation Predictive Maintenance Agent** helps you turn early equipment warnings into planned maintenance actions.



The Challenge

Asset health issues are difficult to interpret, making it challenging to identify what is degrading, why it matters, and when maintenance is truly needed

- APR model warnings arrive without context, and interpreting them takes expert hours
- Correlating residuals, sensor trends, and alarms is slow, manual work
- Without clear context, teams may delay action, overreact, or perform unnecessary intrusive maintenance



The Solution

The Ovation Predictive Maintenance Agent acts as a continuous early-warning system for critical plant equipment.

What It Does

- Monitors APR models and residuals across pumps, fans, bearings, condensers, and other critical assets
- Calculates asset health and maintenance urgency using deterministic, auditable methods
- Ranks contributing sensors and captures sequence-of-events to separate drivers from effects
- Generates a first-level maintenance advisory explaining what is degrading, why, and what to inspect next
- Emits a structured event payload, triggering Root Cause Agent for deeper diagnostic reasoning



How It Delivers Value

Prevent Failures

- Identifies degradation early so teams can plan interventions before failures occur
- Enables a shift from reactive repairs to planned maintenance

Reduce Costs

- Separates credible equipment risk from weak or incomplete evidence
- Reduces troubleshooting time with evidence-based maintenance guidance

Protect Safety

- Delivers advisory-only recommendations without autonomous control actions
- Supports more consistent decision-making to help protect critical assets

Preserve Expertise

- Captures maintenance outcomes and reusable lessons learned
- Converts Ovation Root Cause Agent outcomes into reusable maintenance guidance
- Builds a labeled advisory history that becomes more valuable over time

Ovation Predictive Maintenance Agent



Why It Stands Out

- Uses deterministic models and analytics to detect abnormal behavior, then uses Generative AI to explain what the evidence means.
- Converts APR model outputs directly into maintenance-oriented guidance
- Ranks assets by urgency using health scores, criticality, and evidence completeness
- Captures sensor contribution ranking and soft sequence-of-events automatically
- Hands off a structured event payload to Root Cause Agent for deep diagnosis



Product Snapshot

- Requires Ovation 4.0 with Ovation Virtual Advisor
- On-prem GPU infrastructure powering proprietary Large Language Models (LLMs)
- Operates within the security of Ovation highways' closed networks
- Subscription licensing available in 1, 3, and 5-year plans



Customer Inputs

- 6 months to 1-year historical sensor data (Required)
- Operating philosophy (Recommended)
- Heat balance diagrams / PG test data (Recommended)

**Are You Ready to
Start Your AI Journey?**

We are.

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