

## VIMANA Field

### Predictive Maintenance Software for Field Service

VIMANA is reshaping service delivery and enhancing customer value with IoT, cloud, big data, and predictive maintenance solutions.

## How VIMANA Field Helps

Field Service Organizations from Industrial Equipment OEMs, Equipment Distributors, and MRO Service Providers are looking to optimize after-market service delivery by transitioning to predictive maintenance strategies.

VIMANA Field optimizes industrial equipment maintenance processes and technical resources with a data-driven approach to customer and field service. We are powering the transition from reactive to proactive service with intelligence for predictive repair and preventive scheduling to extend customer value with connected products.

## VIMANA Field is Predictive Maintenance Software that Provides:

### Data Collection and Transformation

- Automatically connect and capture data from sensors, and industrial equipment. Standardize and unify disparate data for advanced predictive analytics.

### Remote Monitoring: Equipment and Component Health

- Get a comprehensive real-time understanding of in-field equipment with real-time visibility to health to identify issues sooner.

### Machine Monitoring: Equipment Performance

- Monitor equipment performance, reliability, and availability. Get an integrated view of usage, production, and asset health.

### Predictive Maintenance for Intelligent Planning and Scheduling

- Use maintenance analytics to prioritize asset repair, plan preventive maintenance schedules, optimize technical resources. Reduce spare parts waste.

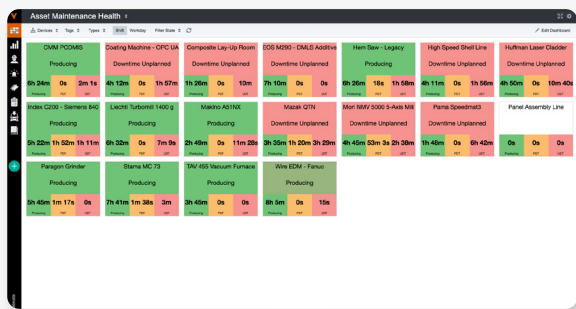
### Predictive Maintenance and Proactive Diagnosis for Remote and Predictive Service

- Analyze patterns, anomalous operating conditions, and machine faults for early diagnosis. Empower customer service with root cause analysis to resolve issues remotely and technicians to reduce repair time.

### System Integration to Optimize Field Service Processes

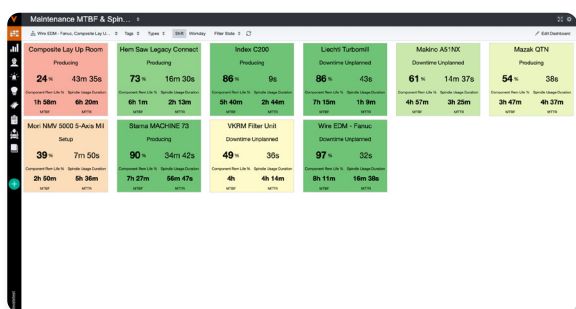
- Automate 'analytics to execution' with integration of predictive maintenance data with field service software.

# Visualize and Monitor / Customizable Real-time Dashboards



## Remote Monitoring

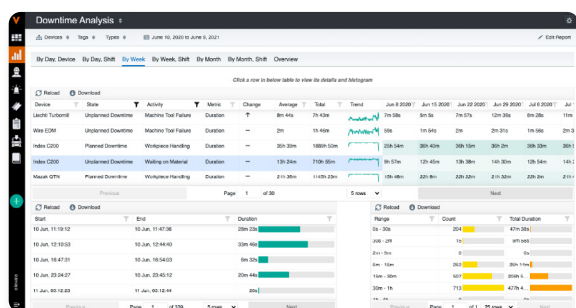
Get real-time visibility into machine status, utilization, and health across your fleet - monitor and manage equipment remotely with pre-built and customizable dashboards. Automatically identify assets in service (preventive or planned) and those that require service immediately for better planning and rapid response to customers.



## KPI Metrics

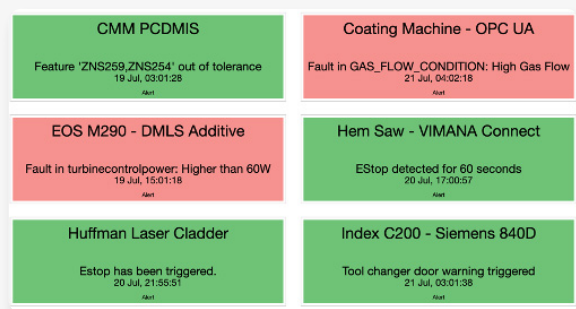
Establish a baseline, monitor, and compare relevant KPIs to include the duration and frequency of downtime and remaining useful life (RUL) until the next preventative event. Monitor critical operational metrics: with an integrated view of asset OEE, parts produced, asset and tooling usage since last PM, condition thresholds, and failure warnings.

# Analyze & Predict / Historical Reports, Machine Learning, and AI-Driven Analysis



## Root Cause Analysis

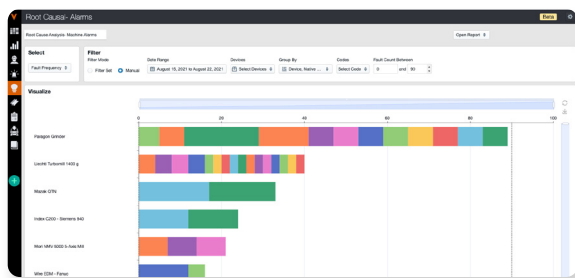
Diagnose root causes and reduce equipment failures. Get insights into what went wrong, for how long, and why with customizable reports that deliver asset intelligence to the maintenance team to help diagnose and expedite the repair process.



## Fault Detection

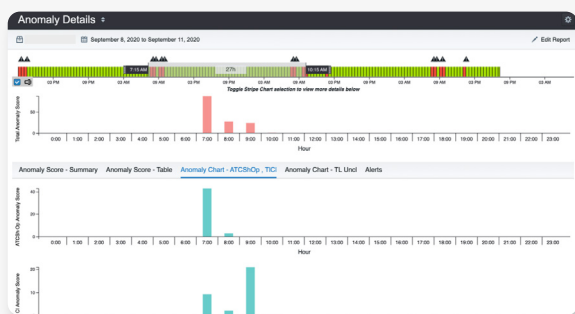
Use dashboards for real-time faults and warnings for machines to determine where immediate action is necessary. Enable your organization to monitor the asset health via IoT/sensors that trigger alerts based on fault codes that further promote work orders for equipped technicians.

# Analyze and Predict Continued



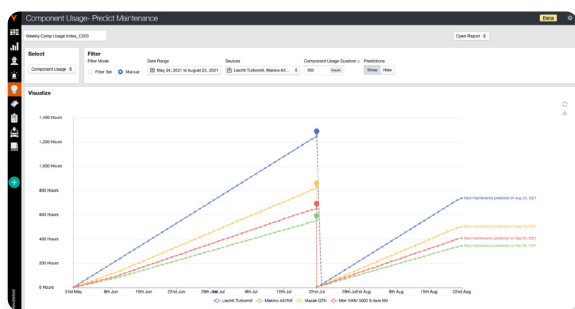
## Machine Alarms and Warning Analysis

Proactively create maintenance activities when parameters like fault count and outage duration of critical alarms reach unacceptable levels.



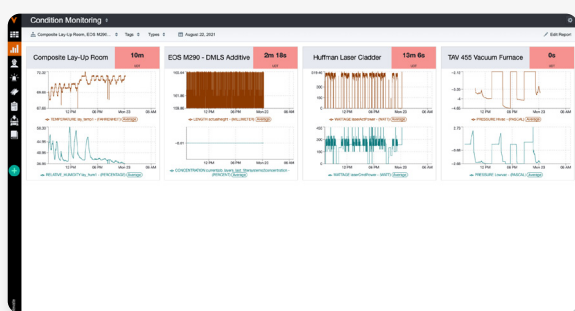
## Anomaly Detection

Detect anomalies and receive early warnings for machine parameters out of spec. Use sensor and machine data to detect abnormal before product quality degradation or asset failure. Stop unplanned repairs before they occur. Use intelligence to plan proactive service.



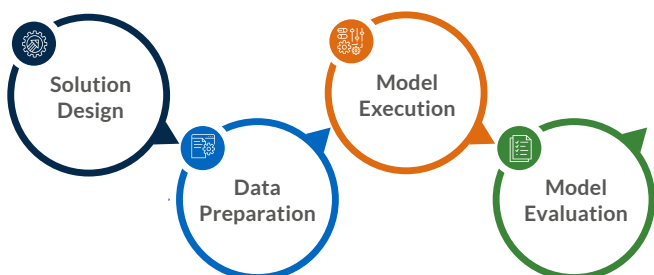
## Usage-Based Maintenance

Move from time-based preventative maintenance to usage-based preventive maintenance. Track last PM scheduled and remaining useful life of the asset or component to optimize technician resources and PM schedule.



## Condition-Based Maintenance

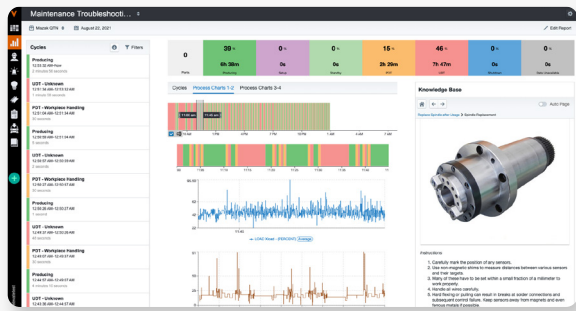
Monitor and analyze conditions and customize by device type: i.e., temperature, vibration, fan/motor RPM, current, voltage, pressure, fluid flow, path reed rates, spindle loads, hydraulic pressure, over time and specific operational patterns of anomalous behaviors. Use CbM for predictive forecasting of downtime and failures.



## Predictive Maintenance Machine Learning

Co-innovate and build custom models to predict equipment downtime and tooling failures before they occur.

# Communicate & Empower Action



## Alerts and Notifications

Automatically and proactively notify maintenance teams and customer support in real-time on asset health issues to ignite action. Alert team to process parameters, like temperature and humidity, that do not fall within the prescribed range. Flag assets where unplanned downtime exceeds the specified duration. Through its analytics, the predictive maintenance platform can automatically generate work orders based on pre-set conditions for imminent failure, deprecated performance, and more.

## Dynamic Work Instructions

Use dynamic work instructions to provide maintenance or process instructions on-demand for operators/engineers/technicians to close skill gaps, reduce errors and improve workforce productivity.

## Ticketing System for Shop Floor Communications

Communicate and collaborate across the maintenance team to solve problems and build a knowledge base to improve team productivity.

# Integrate & Automate

Integrate predictive maintenance data with field service management software to enable a closed-loop maintenance activity process from a data-driven alert to trigger a work order request in (FSM, CMMS, ERP, or CRM Software) of a maintenance task.



# Realize Immediate Value with VIMANA Field Service Analytics



## Enhance Customer Experience and Expand Service Offerings

Improve service delivery by moving from reactive to proactive support, reducing downtime, and faster time to resolution. Create differentiated field service offerings, increase customer value, and enable reoccurring revenue streams.



## Reduce Maintenance Costs of Delivering Service

Reduce repairs by taking action before breakdowns. Solve more problems with remote customer service and reduce on-site incident labor costs. Migrate from schedule to data-driven PMs to minimize labor, spare parts, and inventory costs.



## Improve Maintenance Technician Productivity

Increase maintenance technician productivity by optimizing staffing levels and scheduling. Reduce MTTR and MTBF with maintenance intelligence and technician troubleshooting tools.



## Optimize Maintenance and Repair Processes

Streamline maintenance and parts processes by triggering maintenance activities based on asset intelligence and integration to FMS, ERP, CRM systems for action and communication.

# How to Implement Predictive Maintenance for Your Field Service Teams

It's Simple and Fast. 5 Steps to Optimize Your Maintenance Processes.

1

**Align Equipment to a Data-Driven Maintenance Strategy**

2

**IoT Data Collection and Transformation**

3

**Implement a Pilot: Monitor and Analyze Field Assets**

4

**Trigger and Automate Proactive Maintenance Processes**

5

**Measure Results, Scale to Unlock More Value**

1

### Align Equipment to a Data-Driven Maintenance Strategy

Classify field equipment and apply the most effective maintenance strategy (usage, condition - based, or predictive) to optimize customer satisfaction and field service efficiency.

2

### IoT Data Collection and Transformation

Use automated data collection software to capture and unify adequate volumes accurate, relevant sensor and machine data for advanced analytics.

3

### Implement a Pilot: Monitor and Analyze Field Assets

Use Predictive Maintenance software for Field to access user-friendly dashboards and root cause analysis tools to optimize and preventive and predictive service delivery and provide new value to customers.

4

### Trigger and Automate Proactive Maintenance Processes

Use analytics to define optimal preventive maintenance schedules, monitor and predict field equipment failure. Integrate data-driven insight to trigger required action in field service systems.

5

### Measure Results, Scale to Unlock More Value

Measure results of intelligent service: repair cost reduction, equipment performance and reliability, technician productivity, and service resolution time. Then, expand PdM program your machines in field.

## VIMANA

VIMANA helps industrial businesses transform their operation and grow revenue with industrial analytics software, services, and solutions for Smart Manufacturing, asset maintenance & reliability, and IoT connected products.

Learn more at [www.govimana.com](http://www.govimana.com)