



# APM Reliability

Reduce unplanned downtime  
by predicting equipment issues  
before they occur

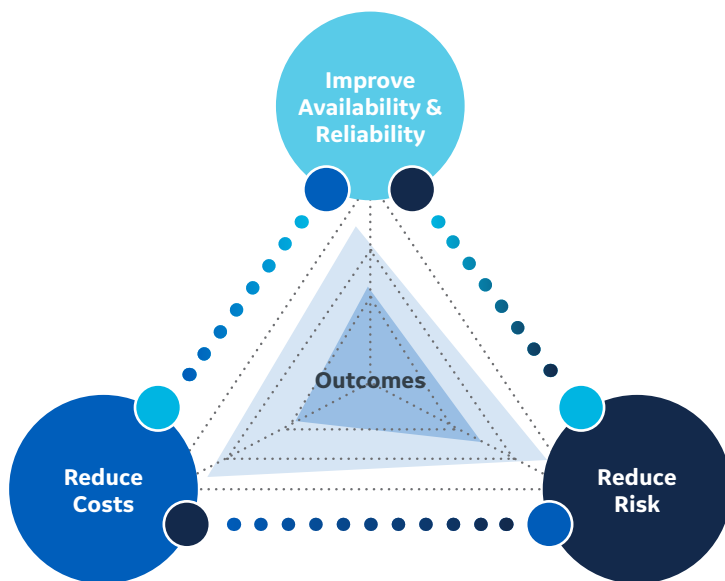


[ge.com/digital](https://www.ge.com/digital)

# Business challenges

The external environment—including a flat global economy, pressure to grow revenue and profit, tighter regulations, and increased competition—has significantly changed the way assets are operated. But internal inefficiencies, including lack of operationally relevant insight, still prevent companies from optimizing asset performance.

Operators are challenged by a lack of visibility into their assets' data and by not having appropriate predictive diagnostics to know in advance when asset failure is about to occur—and why. Instead, operators often use a time-based approach to maintenance, which doesn't take into consideration the way assets are being utilized, their current condition, and real-world operating conditions. Operations and maintenance (O&M) teams miss signs that equipment is about to fail. And they insert more risk into the equation by doing unnecessary routine maintenance. The results: even more inefficiencies, risks, unplanned downtime, and costs.



## A continuous loop of improvement

Predix Asset Performance Management (Predix APM) is a suite of software and service solutions designed to help optimize the performance of your assets. Predix APM increases asset reliability and availability while optimizing maintenance costs, mitigating operational risks, and reducing total cost of ownership (TCO). The suite connects disparate data sources and uses advanced analytics to turn data into actionable insights while fostering collaboration and knowledge-management across the organization. Predix APM works across all equipment, all OEMs, and all industries, across the plant, and across the fleet. Built on Predix Platform, Predix APM gives organizations the flexibility to develop new analytics and applications, making it versatile to meet changing needs.

---

So how can your organization address these key business challenges head on?

---

# APM Reliability

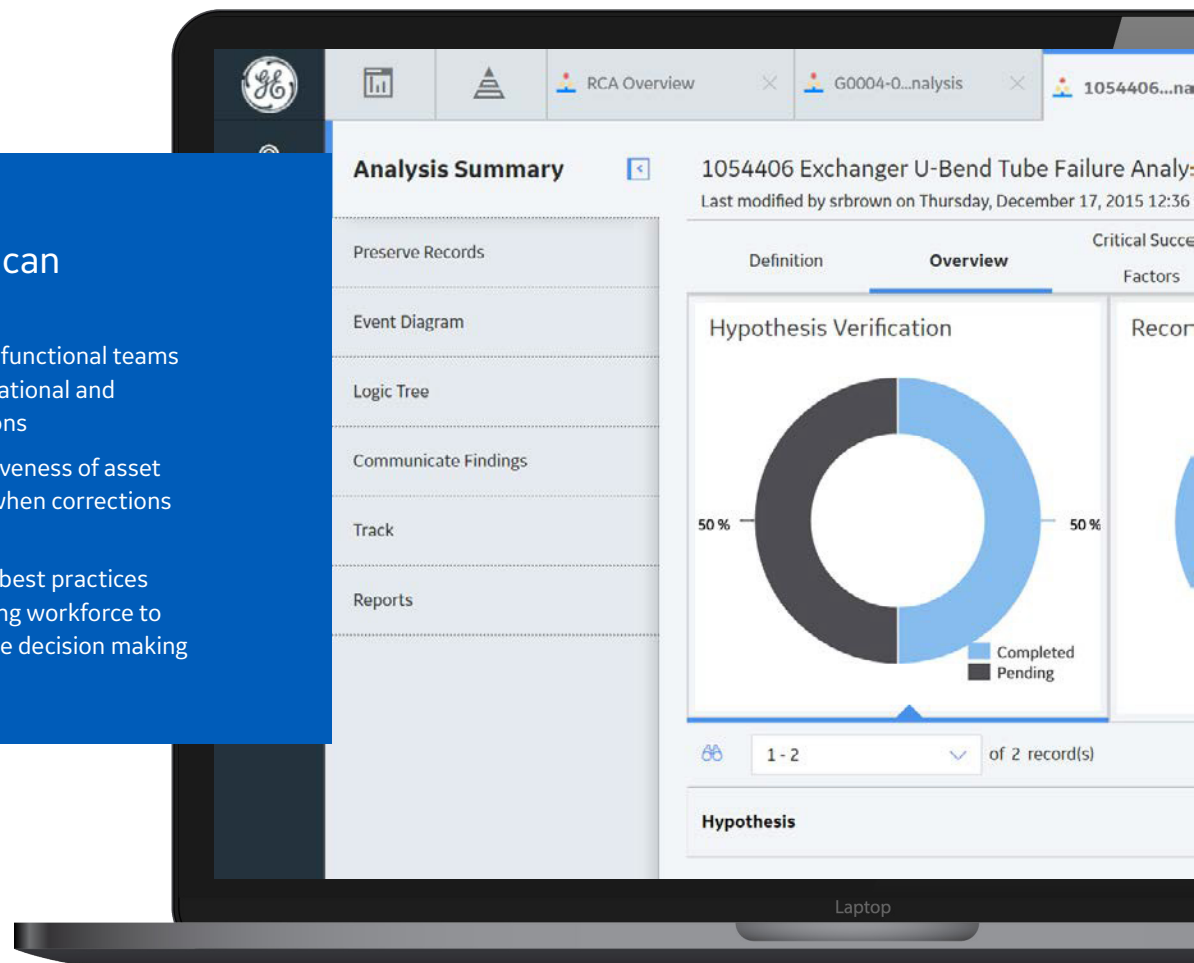
With APM Reliability, a Predix Asset Performance Management (Predix APM) solution, asset-intensive organizations can leverage advanced predictive diagnostics to analyze data, and detect and diagnose asset issues before they occur. This allows companies to schedule downtime and control costs on their own terms.

APM Reliability is designed to work across all assets (fixed, rotating, and non-rotating), all equipment types and manufacturers (GE and non-GE), and all industries—across the plant and across the enterprise.

LEARN MORE

## APM Reliability can help you:

- **Collaborate** across functional teams to make better operational and maintenance decisions
- **Measure** the effectiveness of asset strategies to know when corrections are warranted
- **Develop** and retain best practices from an ever-changing workforce to continuously improve decision making



# Capabilities of APM Reliability

- **Digital twin blueprints**

Digital twin blueprints enable the analyst to anticipate or identify failure of an asset with longer lead time to improve reliability and performance by modeling the asset's expected versus observed states. The analyst can leverage structured time-series data and unstructured data, including process parameters and condition alerts, in the context of the assigned maintenance strategy and actual maintenance performed. It can also compare operating conditions and performance with other like assets.

- **Root cause analysis**

Root cause analysis (RCA) uses a standard methodology for investigation of failures, provides better understanding and analysis of the underlying cause of failure, and captures and institutionalizes that information to help prevent future occurrences.

- **Reliability analysis**

Reliability analysis provides a comprehensive set of analytical tools to help understand causes of asset failure patterns and the true cost of failure. These tools can help you analyze data to identify bad actors and recurring asset failures, develop operational and maintenance strategies, and evaluate the effectiveness of those strategies over time. Wizards allow users to quickly build growth, Weibull, cost of unreliability, and production analyses.



## Real customer results

### Salt River Project (SRP)

May Millies, Manager, Power Generation Services, SRP:

SRP uses APM Reliability *“to help us get to ‘no unplanned downtime’ by moving us to more planned outages instead of reactionary or emergency outages and to show us when things are going to happen instead of waiting until they occur.”*

[WATCH THE SRP VIDEO](#)

### Delta Air Lines

Jeff Slagle, General Manager, Propulsion Engineering, Delta Air Lines:

*“It’s ok to collect data—but in the end you have to really do something with it.”* Delta uses APM Reliability to analyze engine data—from 14 models, 4 OEMs— to detect changes and keep its passengers safe.

[WATCH THE DELTA VIDEO](#)

# Predix Asset Performance Management

APM Reliability is one of four Predix APM solutions:



## APM Health

**Drive actions with central view of asset health**

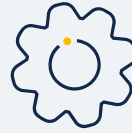
Asset Health Manager  
Rounds  
Calibration management



## APM Reliability

**Proactively identify and eliminate defects**

Reliability analysis  
Digital twin blueprints  
Predictive diagnostics  
Root cause analysis



## APM Strategy

**Reduce risk and optimize life cycle cost**

RCM/FMEA  
Strategy library  
Strategy manager  
Lifecycle cost analysis



## APM Integrity

**Help keep facilities contained and compliant**

Risk based inspection  
Inspection management  
Thickness monitoring  
Hazard analysis  
Management of change



## APM Foundation / Essentials

### IT/OT Connectivity & Integration

EAM integration  
HMI/SCADA, Historian, MES systems  
Asset controllers & sensors

### Monitoring, Analysis & Event Management

Dashboards, interactive data analysis  
Criticality, alerts, cases, recommendations  
HMI visualizations & alarms

### Edge-to-Cloud Computing

Industrial data fabric  
Analytics & machine learning  
End-to-end security

## Predix APM offers multiple benefits, including:

- Improves reliability, availability, and productivity
- Optimizes maintenance costs
- Mitigates risk
- Maintains technical expertise (tribal/organizational knowledge)
- Delivers continuous improvement

[Learn more about our complete Predix APM offering](#)

Do you want to learn more about how you can use your data to detect and diagnose equipment problems before they occur?

[Visit our website to learn more about APM Reliability.](#)

[VISIT OUR SITE](#)



## About GE

GE Digital transforms how our customers solve their toughest challenges by putting industrial data to work. Our mission is to bring simplicity, speed, and scale to digital transformation activities, with industrial software that delivers breakthrough business outcomes. GE Digital's product portfolio – including grid optimization and analytics, asset and operations performance management, and manufacturing operations and automation – helps industrial companies in the utility, power generation, oil & gas, aviation, and manufacturing sectors change the way industry works. For more information, visit [ge.com/digital](https://www.ge.com/digital).

## Contact Information

Americas: 1-855-YOUR1GE (1-855-968-7143)

[gedigital@ge.com](mailto:gedigital@ge.com)

[www.ge.com/digital](https://www.ge.com/digital)