Digital Energy
Asset Performance Management (APM)
Improve Asset Reliability and Availability While Reducing O&M Costs
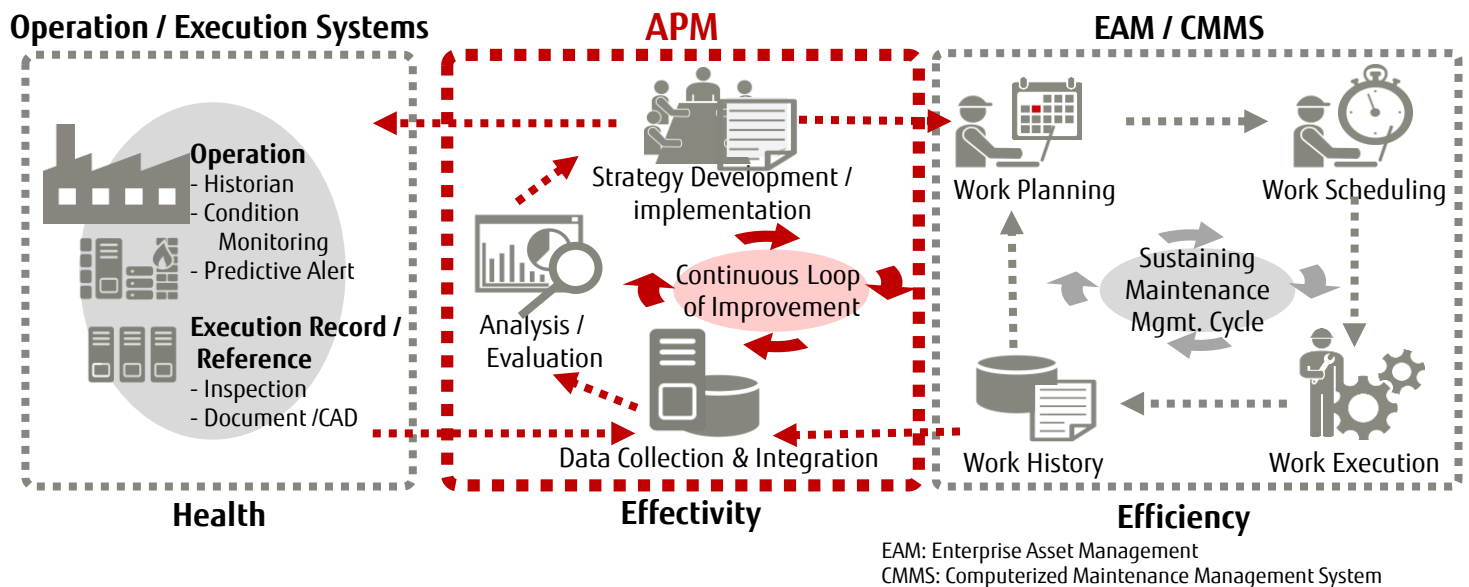
Advanced
Technology

Asset Performance Management for Power and Utilities

Asset Performance Management (APM) is a software application designed to increase asset reliability and availability while reducing maintenance cost. APM connects disparate data sources and uses advanced analytics to turn that data into actionable insights while fostering collaboration and knowledge management across the organization.

APM Position in Asset Management Business

Using APM Solution, asset strategies to optimize asset maintenance activities can be defined by collecting, integrating and analyzing data from various asset management relate systems, and these strategies would be improved continuously.

Operation / Execution Systems **APM** **EAM / CMMS**

Operation
- Historian
- Condition Monitoring
- Predictive Alert

Execution Record / Reference
- Inspection
- Document /CAD

Strategy Development / implementation

Continuous Loop of Improvement

Analysis / Evaluation

Data Collection & Integration

Work Planning

Work Scheduling

Sustaining Maintenance Mgmt. Cycle

Work History

Work Execution

Health **Effectivity** **Efficiency**

EAM: Enterprise Asset Management
CMMS: Computerized Maintenance Management System

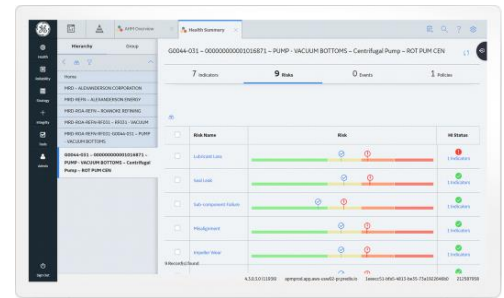## Software Functionality of APM Solution

APM Solution provides holistic and various kinds of analysis and evaluation methods focusing on asset management.

APM Health	APM Reliability	APM Integrity	APM Strategy	SmartSignal
• Health Manager • Round • Calibration • eLogs	• Reliability Mgmt. • Root Cause Analysis • Production Loss Accounting	• Risk Based Inspection (RBI) • Inspection Mgmt. • Thickness Monitoring	• RCM / FMEA • Strategy Library • Strategy Manager • Life Cycle Cost Analysis	• Predictive Diagnosis • Digital Twin Blueprint

APM Foundation
- APM Foundation
- Policy Designer
- APM Metrics
- APM Connect Plus
- EAM Adapter Basic
- ASI for SAP
- OPC Adapter
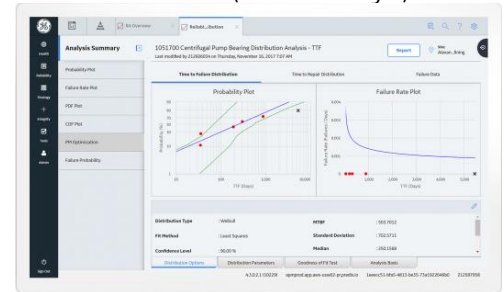- Language Pack

shaping tomorrow with you

Overview of APM Software Functionality

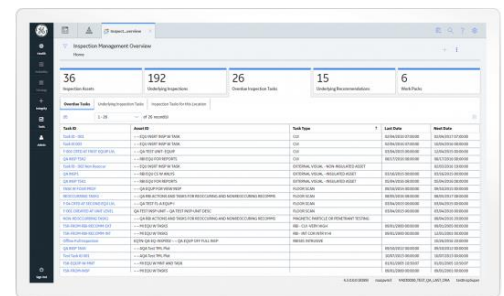APM Work Processes (functionality groups) consigning APM solution are briefly described as follows.

- ● **APM Health**

  APM Health manages data across a variety of assets and systems, creating a comprehensive and validated data repository and unified view related to expected performance at the asset, plant, and enterprise levels.

- ● **APM Reliability**

  With APM Reliability, 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 Integrity**

  APM Integrity equips organizations to enable a closed loop mechanical integrity program across the enterprise. This comprehensive inspection solution helps operators reduce risk, lower inspection costs, and ensure regulatory compliance relative to their fixed assets.

- ● **APM Strategy**

  APM Strategy provides a common methodology to develop and manage asset strategies by using a risk-based approach to conduct analysis of individual, group or system of assets. By balancing risk, goals, and investment, it allows organizations to focus costs on the most critical assets—reducing maintenance and inventory costs, increasing availability and reliability, and moving to a proactive approach.

- ● **SmartSignal**

  SmartSignal works by leveraging existing data and infrastructure to provide early and actionable warnings of impending equipment and process problems—thus allowing your workforce to move from reactive to proactive maintenance and from looking for problems to fixing them.

- ● **APM Foundation**

  APM Foundation is a prerequisite to all other solutions. It provides the infrastructure and framework to support intelligent asset strategies through consistent core analysis and administrative tools for decision support. A set of core capabilities acts as the foundation for standard work processes, providing a consistent user experience.
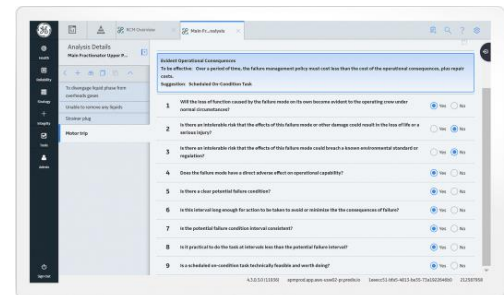

APM Health (Health Manager)

APM Reliability (Reliability Analysis)

APM Integrity (Inspection Mgmt.)

APM Strategy (Reliability Centered Maintenance)

APM Installation Benefit

The following values represents major APM installation effects and average achievement.

Increased Availability	Reduction in Reactive Maintenance	Gain in Employee Productivity
2-6%	10-40%	5-25%

Inventory Cost Reduction	EH&S* Incident Reduction *Environment, Health and Safety	Reduction in IT Total Cost of Ownership (TCO)
5-10%	3-40%	5-25%