Asset Performance Management (APM) integrates operations data, predictive analytics, and historical records to maximize asset performance and value. New innovations and technology developments establish the initiatives that drive APM strategy across the organization. At Clockwork, we are constantly on watch to help you harness new ways to leverage APM and to drive value.

What does 2017 hold for APM – and how will it affect your organization? Here are the top 8 trends you need to stay on top of.

**Big Data Grows Bigger Yet**

What was a wave of data growth is now a tsunami. According to market watchers, in 2017 we will create more data globally than we ever have before. To put this in context: in 2015/16 alone, we generated more data than in man’s first 5,000 years on Earth.¹

APM specialists are in a great position to take advantage of this growth with a huge spike in the data available for use in optimizing enterprise assets. Sensors produce volumes of big data each second. Maintenance and user manuals are automated. Assets and their components are tagged with 2D barcodes, RFID tags or GPS. Scanners, smart meters, fleet tracking, and mobile devices are linked wirelessly and used extensively in maintenance and field auditing. These automated datastreams are all funneling into existing back-office systems like your Enterprise Resource Planning (ERP) systems to track these expanding volumes of data.

This enables your organization to granularly understand its assets, how they are being used, when and where, leading to lower maintenance costs, higher uptime, and increased productivity.

**The Internet of Things**

The Internet of Things (IoT) is booming; growth is predicted to more than double in the next few years, forecasted to go from an install base of 30.7 billion devices in 2020 to more than 75 billion in 2025.² IoT capabilities are revolutionizing APM, bringing your organization’s assets online using sensors to generate streams of real-time data. This is true not only of new equipment, but also for legacy assets that are outfitted with monitors and sensors to provide the same volume of data as newer assets.

This abundance of data provides a new dimension of insight about all your assets, and can springboard industrial assets far into a world where big data drives efficiencies, quality, and performance.
**SaaS for APM**

Software as a Service (SaaS) is now most organizations’ preferred way of obtaining new software and services, with an annual growth rate of more than 22%. Look to leverage APM and analytics in the cloud. It’s a proven approach to accelerating your time to value with quicker deployments, faster time to ROI and quicker access to new features as your APM provider expands their offerings, while shifting help desk, hosting, and security issues away from your IT staff and onto your vendor. It’s a true win-win in terms of ROI and cost savings.

**Predictive Analytics Gaining Ground**

Predictive analytics is on track to attract 40% of enterprises’ net new investment in BI and analytics, and for good reason. Advanced analytics techniques are rapidly replacing legacy processes built on spreadsheets and other tools that lack the ability to perform the analytical detail required. With predictive analytics, analysts can represent layered, complicated, and even chaotic systems; automated computing handles the detail, leaving them free to manage the analysis, validate assumptions, and drill deeply into the results.

Combined with the SaaS delivery model and access to powerful computing platforms, predictive analytics will support data-driven decision making to impact the bottom line.

This enables your organization to understand asset usage at a granular level, how those assets are being used, when and where, leading to lower maintenance costs, higher uptime, and increased productivity.

**ERP a Key Aspect in APM Modeling**

Asset managers are discovering a key resource for APM modeling. The evolution of ERP systems to track maintenance, inventory optimization, and asset management activities is enabling an efficient way to fuel a predictive analytics solution for APM. Asset managers can increasingly look to the ERP system as a central source of data for APM models and the complex algorithms which track asset data to unlimited levels of indenture. The ERP system now supports a more detailed, focused approach to viewing asset performance and provide a more accurate view of future performance.

Key tip: Before using an ERP solution as a touchstone for APM, make sure that integrations with relevant data sources are solid, and that refreshes are consistent.
The ROI of CBM and PHM Grow

Increasing asset productivity and lowering maintenance costs were key drivers of the first generation of Condition Based Maintenance and Predictive Health Management implementations. Unfortunately, many were slow to show a strong ROI, as these projects were isolated and based only on sensor data, which alone lacks depth and is often intermittent.

As organizations continue to integrate their CBM and PHM programs as part of a larger, more robust APM strategy, we will see these programs more able to deliver on the potential ROI and drive deeper value from ongoing projects and investments.

This will be especially true for organizations that adopt predictive analytics as part of their CBM and PHM strategies, due to the ability to leverage historical data and accurately model future events.

Real Asset TCO Becomes an Achievable Metric

Organizations will always focus on total cost of ownership (TCO) as a key metric for capital assets in an effort to quantify the asset’s financial impact over time. While this approach takes into account costs far beyond price at the time of procurement, the dense calculations required can make the task overwhelming.

Organizations can achieve this goal now with predictive analytics algorithms specifically tailored for APM. It considers not only the historical asset data, but also the future data it generates over its lifetime.

Understand and communicate the real total cost of ownership of an asset. Gain high-fidelity, holistic information about asset behavior, and account for maintenance, parts and replacement requirements – all part of its true cost.

Value Added Services

Using predictive analytics to monetize your assets, infrastructure and expertise is a huge opportunity for organizations in 2017 and in the future. Understand where the ideal balance point between maintenance needs and service levels lies to create optimized value added services for customers and new revenue streams for your organization.

APM initiatives are key to exploiting the data from your investments. Even minimal data can get you started, and once it’s generating results, it is easy to build on that and create a more robust approach.
Clockwork Solutions is a global leader in predictive analytics solutions for Asset Performance Management (APM) with a focus in improving availability, reducing parts inventory, and controlling maintenance costs of strategic, capital intensive assets. With over 25 years of experience delivering solutions for Fortune 500 enterprises across multiple industries as well and Military organization worldwide, Clockwork delivers a full range of solutions ranging from Extract-Transform-Load (ETL) data capabilities through to Condition Based Maintenance, Predictive Health Management, and full Life Cycle management.

Learn more at clockwork-solutions.com

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