

AGE OF DIGITAL ENTERPRISE: DIGITAL STRATEGY FOR ENTERPRISE ASSET MANAGEMENT



Gone are the days when enterprise asset management (EAM) was just a maintenance department responsible for multiple, mismatched, silo-based functionalities hidden away from mainstream operations. EAM is now an integral part of every organization delivering an operations-centric, futuristic solution positioned at the frontline of organizations.

What led to this spectacular transition? Mind-boggling technological innovations and the obvious value that dynamic asset management capabilities bring to the organization.

EAM is now vertical specific, playing the role of a crucial differentiator and determining the profitability of asset-intensive, uniform-commodity verticals such as mineral, oil, power generation, and other heavy industries. Organizations in these verticals constantly battle a highly competitive, yet mature, market where traditional differentiators hardly provide any strategic advantage. It is this market that's witnessing a tectonic shift in EAM's capability to serve as critical differentiators.

What are the influencers transforming the EAM landscape?

Cloud solutions - leveraging the power of one

Cloud provides the benefit of delivering a streamlined experience across the asset management lifecycle, consistently simplifying and smoothly integrating every step with the next. Cloud delivers immense benefits across the business in terms of providing

- Optimal speed of implementation, with seamless integration and data sharing
- Low-risk management of assets through predictive maintenance
- Flexibility in delivering industry-specific requirements
- Improved productivity, cost efficiency, asset reliability, and longevity
- 360-degree visibility of assets
- Real-time connectivity to take action with almost zero latency
- Software-as-a-service (SaaS) options with options of choosing select functionalities
- A network of easily upgradable asset management solutions

All these benefits serve as great differentiators, especially for asset-intensive industries.

Asset performance management (APM) - proactive maintenance through real-time data analytics

Of all the essential aspects of EAM (managing assets, workforce, and preventive maintenance), APM takes the top spot. APM includes capturing real-time data; integrating, processing, and modeling the captured data; and transforming data sets into customized insights. This drastically reduces instances of inept emergency responses to unexpected situations through preventive maintenance. The information of everything is certainly encompassing EAM. Assets with in-built cognitive analytics based on critical parameters safeguard the health of assets by providing real-time inputs across a wide range of interfaces. In addition, technology-enabled solutions simplify the evaluation of a range of data insights through a single-dashboard overview with multiple functionalities. We have come far away from the evolution of reactive maintenance to preventive maintenance and then predictive maintenance which was enabled by data mining and analytics. The convergence of new age technologies like IIoT, Cloud, Big Data, Analytics and Mobility has heralded the new age maintenance, i.e. Prescriptive Maintenance, the next big step forward in the evolution of asset management. Moving from post-event analysis of historical data to real-time event analysis to predictive analytics, the latest entrant is prescriptive analytics which can not only predict what is likely to occur, but it can provide "what-if" analysis of alternatives to alter the outcome. In terms of cost benefit analysis, prescriptive maintenance looks promising to showcase marginal benefits.

Mobile workforce technology - enabling asset performance visibility from anywhere anytime

Phenomenal technological innovation has extended businesses beyond the four walls of their premises. Remote workforce and working while on the move are becoming increasingly common. With innovative solutions optimizing on-premises EAM functionalities, the benefits should hence also be extendable to stakeholders who are on the move. Mobility-enabled EAM achieves this purpose. This advantage is especially valuable in asset-intensive industries where work locations are in disparate, remote geographies, with almost decentralized operations. Mobility allows employees to enter data directly from source, review asset parameters, and take timely decisions from anywhere anytime. This ability also ensures that all the stakeholders across the business are on the same page. For example, fault reporting, response to emergencies, part replacement requests, and process approval can easily happen in real time through mobility features and systems enabled by GIS capability which provided geo spatial visibility and enables better control of assets.

Smart technology - heralding the era of EAM transformation

In today's era where smart technology has been achieving unimaginable efficiency across all verticals, can EAM be far behind? From IoT to AI, innumerable technological innovations have found crucial value in EAM.

Multiple IOT-based applications are revolutionizing EAM, with their impressive contributions:

- sensor-based real-time equipment health analysis
- Cognitive support in repair and maintenance
- Predictive maintenance for specific failures
- Automated inventory control of parts

Drones too are making a great headway in EAM by facilitating live video streams of equipment in remote areas and for detailed video streaming of even tough-to-access portions during asset inspection and defect detection.

RFIDs are currently commonplace, cost-effective solutions that provide real-time visibility of the location, performance, and value of assets, enabling asset management across its lifecycle.

Augmented reality is the latest innovation that is capturing EAM's attention. With immense potential for simplifying complex tasks, augmented reality delivers an enhanced experience of reality through virtual simulation, especially for tracking asset location, part assessments, equipment health assessment, etc.

Gone are the hassled days which required logging into systems to perform a transaction, features like Chatbots are fast automating most transactional activities in EAM, from work order to part purchase request generation and approvals from mobile devices. A simplified message-type request automatically delivers relevant information in seconds, increasing efficiency and saving time and cost. All these next-gen technologies indeed have the potential of exponentially increasing the efficiency of EAM.

Lean Maintenance and Quality Compliance

An ideal EAM scenario would mean achieving operational excellence with smooth asset transition from one stage to another across its lifecycle, with as minimal surprises as possible. This ideal state can be achieved through lean operations, recording best practices, and standardizing procedures.

With the world graying at a much faster rate than ever before (the US Census Bureau estimates that over the next 10 years there will be an increase of about 236 million people aged 65 and older throughout the world). This means that all the expertise and source of knowledge would soon not be available to organizations. Hence, businesses are rapidly creating repositories of best practices where the senior, experienced stakeholders can document procedures and practices as a quick and trusted reference.

Focus on Optimal safety and regulatory compliance

Requirements for safety, environmental risk management, and regulatory compliance are stringent and drastically vary across geography and verticals. Complying with these requirements and maintaining proofs, records, and documentation of compliance across the enterprise is a critical aspect of EAM. Regulatory requirements entail organizations to forecast risks and issues effectively and then implement preventive measures to avoid (or in the worst case, overcome) any danger. Such proactive approaches of notification and remedial action require a robust system that maintains audit-ready assets at all times.

EAM is indeed witnessing a sea of technological transformations, catapulting it to the limelight within organizations. Futuristic EAMs are bringing three clear advantages to the organization:

- Functioning as crucial differentiators in commoditized industries
- Breaking down functional silos across the business
- Simplifying every stage of an asset's lifecycle, from acquisition to retirement

For asset intensive organization, EAM is well on its way to being a compelling contributor to an enterprise's journey towards its vision. Hence leveraging all the benefits of big data, cloud, mobility, and other futuristic technologies will go a long way in enabling a smooth, safe, and profitable transition.



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Ramco has been focusing on moving towards Cognitive and Robotic ERP with features such as Mail It – a feature which enables users to transact with the application by just sending an email; HUB It - a one screen does it all concept built to address all activities of a user and Thumb It – mobility where the system presents users with option to choose rather than type values. To know how Ramco can help you create business value for your organization, mail us at contact@ramco.com

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