



ENTERPRISE ASSET MANAGEMENT

Choosing the right EAM system: The devil is in the details

You're probably already using some type of enterprise asset management (EAM) system, and you might think: "If it's not broke, don't fix it." But that could be a shortsighted attitude when it comes to making your maintenance activities more strategic. With the right enterprise asset management system in place, you can not only keep your assets operating within specifications and reduce energy usage, but vastly increase efficiency and identify problems before they shut down your operations. In short, you can use your EAM system to optimize maintenance and turn it into a competitive advantage. To meet these goals, consider software that has built-in preventive features and alerts; provides checklists and easy-to-use daily scheduling capabilities; gives contractors access to the system through their own portal; can scale as you add users without causing a system crash; and gives you native, platform-agnostic mobile capabilities.

But be careful. When considering new software, the devil is in the details: in this case, you need to worry about multiple "devils," from change orders, to project-based systems, to development frameworks—and more. These items carry a high cost. Read on to discover the important questions to ask about your EAM system, to help ensure you're getting the kind of asset performance that makes your maintenance operation a strategic differentiator instead of a cost center—and that you know all the costs ahead of time.

What to consider when choosing an EAM system

Many of the existing solutions on the market are little more than frameworks that require costly and expensive customizations to give you a complete EAM system. Customizing software complicates future upgrades and makes staying current on technology updates more expensive and less likely. If that doesn't sound appealing, it's time to consider what you could be getting from a purpose-built EAM system. Here are the five primary categories you'll want to think about when looking for an EAM system that can meet your organization's needs.

Cost

With EAM systems, there's more to consider than the initial buy-in. You'll want to consider what that buy-in gets you. Is it just a basic framework that requires you to spend even more money on add-on modules and customizations to get the functionality you need?

When thinking about cost, consider, too, how the EAM system will be deployed. Modern enterprise software has moved beyond on-premises-only deployment options to either cloud-based software as a service (SaaS) models or hybrid deployments. Make sure that whatever EAM software you choose offers a reasonably priced cloud option—with a reasonable number of licenses required—and that all the functionality you need is available through this deployment model. Cloud deployment ultimately saves you money because you don't need to purchase and maintain the hardware required to run the EAM system, and you don't have to perform your own upgrades or system maintenance.

Flexibility and scalability

When it comes to deployment modes, the more flexibility your EAM system offers, the better. Look for a system that can be deployed in the cloud, on-premises, or in a hybrid environment. Consider, too, what type of cloud deployment is available to you. A multi-tenant deployment model gives you a shared, secure infrastructure that can scale up when you need more capacity, or scale down during off-peak times.

“Cloud deployment of Infor EAM delivers a predictable total cost of ownership and ensures that our data is secure in case of an emergency situation.”

Jon Walton
CIO, City and County of San Francisco

Plus, it's extremely competitive on pricing. However, you may prefer single-tenant hosting, where the software provider hosts your EAM system in your own secure environment.

Whichever option you choose, be sure the cloud platform offers a high uptime percentage, zero-downtime upgrades, and a solution and infrastructure that can grow along with your business. The highest-performing platforms will give you unparalleled protection and an extremely high uptime percentage in the range of 99.5%+ guaranteed server availability, 24/7/365.

Beyond how the system is deployed, consider how well it can handle your workload. Your company may start out small, but you're not likely to stay that way. Your EAM system needs to be able to grow along with your company and support as many concurrent users as you may need—without ever having to worry about it crashing down around you.

Integration

Your EAM system doesn't operate in its own corner of the world, disconnected from the rest of your enterprise. It should offer an integration platform that allows your users to work within a common workflow and single interface. It should use multiple applications without having to shift gears, easily sharing key screens, data, and attachments. In addition, your EAM system should offer integrated functionality for other key business areas, like human resources and financials. With everything tied together and operating seamlessly, your EAM system can help you improve visibility that is key for better decision-making, helping eliminate the inefficiencies, costly maintenance requirements, and missed opportunities that result from disconnected systems and information silos.

Mobility

Your EAM system should enable your workers to roam between connected and disconnected environments without having to worry about losing application performance. You'll want to choose software that enhances the communications link between the field and the office, so that you and your field service workers can assign, perform, and record activities and ad hoc work orders anytime, anywhere, and from any device. With the current speed of business, and the problems that could result from inaccuracy, you can't afford to force your workers to wait until they come back in-house to update asset records. To keep your assets running at peak efficiency, and avoid unplanned downtime, you need an EAM system with full mobile capabilities, so you can keep critical maintenance and asset data complete and up-to-date at all times. Access to GIS, documents, videos, diagrams, images, and other information reduces trips back to the office and increases productivity.

Best-in-class capabilities

Strategic asset management starts with best-in-class capabilities. Looking beyond the basics, you'll want to choose an EAM system with solid support for:

Reliability-centered maintenance—Planning and analysis capabilities help you better understand equipment reliability. By determining the reliability index for equipment or recording the results of a reliability-centered maintenance (RCM) study, you can identify equipment risk in a concise and consistent manner. On the analysis side, you'll want an EAM system that automatically performs reliability calculations, making it much easier to determine reliability trends of equipment based on their work order history.

Energy optimization—Look for an EAM system that allows you to benchmark, monitor, and compare the energy performance of your assets, calculating the amount of energy consumed. You'll want support for green building standards like Energy Star, ASHRAE 90.1, and LEED. Plus, look for tools for monitoring performance on all forms of energy, including water, air, gas, electricity, and steam, and calculated CO2 emissions. With these capabilities, you can more easily establish and monitor a corporate energy strategy.

CERN: Managing more than one million assets with Infor EAM

The largest and most complex machine ever built by mankind is maintained with out-of-the-box asset management software with no modifications. CERN—the European Organization for Nuclear Research—does very complicated work in overseeing the Large Hadron Collider. It wants tools that are capable, not complex, and intuitive enough that anyone can use them without training.

While managing more than a million pieces of equipment with Infor EAM®, CERN has reduced the amount of time needed to find and analyze data, and its outside maintenance contractors can now do the same amount of work with fewer people.

Checklist functionality—Your supervisors and technicians need to be able to identify and track the maintenance steps to be implemented. Checklist functionality will let you break down a task plan into individual steps, identify which steps have been completed, and collect the required data. Checklists need to be available on mobile devices, too, so that field technicians have all the information they need when and where they need it. Surprisingly, this capability is missing from many of the EAM solutions on the market.

Scheduling—Look for full work management features, particularly daily scheduling, so you can schedule and execute projects, track resource status and expenditures, monitor work completion, and allocate human resources without having to customize the solution or purchase an additional module.

Contractor portal—Your company relies on external contractors to carry out some key tasks, such as reading meters. A smart EAM system will offer a secure portal that contractors can use to input data and update records, but not have access to your full system or sensitive data.

Facilities management tools—Strong facilities management tools help you reduce costs, downtime, and risk, while increasing compliance, reliability, and customer satisfaction. They also offer the ability to incorporate CAD drawings as needed.

Analyst and industry recognition

Awards and accolades from people who know the maintenance industry help to assure organizations that they are making a well-informed choice. Look for recognition from respected analysts like Gartner and others, as well as coverage in industry publications and certification results from software evaluators. Online reviews and recommendations from peers are useful, too.

Does your EAM system give you everything you need?

Best-in-class asset management goes beyond work orders to help your operation move along the maintenance maturity model, becoming predictive instead of reactive. You might be tempted to trust the maintenance of assets to your current system, because “it’s not broke.” But there’s a big difference between “not broke” and “at the top of the efficiency game.”

Ask yourself—and your potential EAM software supplier—these questions to make sure you’re getting everything you need:

Does your provider offer best-in-class EAM capabilities?

Any EAM system will offer you the basics, like asset, work, materials, and service management functionality. But does the system you’re considering offer advanced capabilities, like tools for energy optimization, reliability-centered maintenance, or scheduling? If these capabilities are available as add-on modules, consider what it will take to implement them—it could be a simple integration, or require a major project with lots of custom code and testing.

“Infor EAM is at the core of our strategy. We have reduced our parts expense on average by 3% to 4% each year since we started using Infor EAM over 10 years ago.”

Todd Hawkins
SVP Maintenance, First Transit, Inc.

Is their EAM software available in the cloud? Through what platform?

It’d be surprising if the answer to this question was “no.” But it’s not enough for software to be available in the cloud; it needs to be hosted on the best possible platform, in the most flexible way. Ask how much downtime (both planned and unplanned) your intended cloud service provider (CSP) has experienced and compare this to other major public CSPs. Ask, too, how long they’ve been in the cloud; experience matters in terms of forging strong relationships and understanding best practices for engineering and deploying software that runs optimally in the cloud. Finally, ask how they’re keeping your data secure. The last thing you need is for the system to get hacked so that you lose access to it, or lose years of maintenance data.

Do they offer a strong mobile version or support mobile usage?

Your users rarely work from their desks; they’re out in the field, where your equipment is deployed. Having EAM software that lets them work from anywhere, at any time is no longer an “if”—it’s a “when.” Does your intended software offer a true mobile version that doesn’t require full connectivity to use it? Can the mobile solution run on any mobile platform or device, or is it limited by the OS provider? Your users should get all the features they need in a mobile application that can adapt to your business processes, rather than the other way around.

Can their EAM software scale with your business and is it flexible enough to meet your changing needs?

Your business is constantly evolving; your EAM software needs to keep up. Consider whether it's deployed in a single-tenant cloud with fixed resources, or a multi-tenant cloud that allows you to add computing power and storage space as you grow. You'll also want to consider how much of what you need is available in the core application, what you'll need to add through add-on modules, and what it will take to implement those modules to make them work the way your business does. After all, you don't want to have to reconfigure every piece of your solution just to add a new capability.

Is their EAM software supported through ongoing investments in development and support?

A system that's not being invested in is a system that's about to become obsolete. You'll want to make sure your proposed EAM vendor is still spending money to develop the software and add capabilities to take advantage of emerging technologies, like the Internet of Things (IoT)—but also adding functional features on a continuous basis that you care about, and that add value to your business. Similarly, you'll want to make sure that vendor provides experienced support personnel who have years of experience with both the product and your industry, so they can help you when you run into a problem.

The future of EAM

True enterprise asset management is about much more than maintenance. Advances in technology are reshaping the asset management discipline and the software that supports it.

The cloud allows organizations to securely forego expenditures on hardware and IT in favor of investment in their core lines of business. Analytics have become more sophisticated in order to provide the optimal data needed for critical daily decisions.

Ring Container reduces inventory by 25% with Infor EAM

How does standardization on one maintenance system of record make a difference to an enterprise?

Ring Container has consolidated 18 separate databases and expects to reduce inventory by 25%—by eliminating duplication and obsolete parts, and by having the visibility to share parts between plants.

And despite standardization, pacing can be individual. "With Infor EAM, we're finding that our plants can grow individually as they get ready," says Ring Container's EAM project manager. "We don't have to roll out the same functionality to everybody."

Artificial intelligence, IoT, and machine learning use advanced sensors and sensor fusion along with edge devices to provide more advanced monitoring and diagnostic capabilities. Drones perform inspections that are dull, dirty, or dangerous for humans to perform. Mixed reality (MR), according to Deloitte, "represents the controlled collision of the Augmented Reality (AR)/Virtual Reality (VR) and IoT trends. With MR, the virtual and real worlds come together to create new environments in which both digital and physical objects—and their data—can coexist and interact with one another." Mobility overlays everything, making it not only possible but increasingly critical that field technicians can access work orders, instructions, warranties, diagrams, manufacturer's specifications, and more while onsite.

The end goal of all of this? Use every available and feasible method to increase reliability, uptime, and safety in the face of budgetary challenges—incidentally creating the asset management of the future in the process.

The benefits of strategic EAM

Choose your EAM system wisely, and you can turn your company's asset management program into a competitive advantage. With the right EAM system in place, you can increase the reliability of your assets through predictive maintenance, ensure greater regulatory compliance, and more easily support sustainability initiatives. Best of all, you can do all that for a reasonable cost and with the flexibility and scalability to support your company now and well into the future.

Recognition for Infor EAM from analysts, software evaluators, and industry publications

- [Gartner's 2017 Magic Quadrant for Enterprise Asset Management](#)
- [Technology Evaluation Centers \(TEC\) certification report](#)
- [Diginomica, "Drones and SMAC – the EAM shape of things to come," Chris Middleton, April 18, 2017](#)
- [Plant Engineering 2017 Product of the Year Winner](#)

ScotRail replaces SAP with Infor EAM in the cloud

Abellio ScotRail's diverse fleet of 292 diesel and electric vehicles across eight fleets represents an enormous challenge for the operator, since planned and corrective maintenance—including cleaning, fueling, repairs, and servicing—takes place across many sites. The company needed to get a system up and running in six months, and required a system capable of scaling to meet its unique business needs.

ScotRail chose Infor EAM to replace SAP's solution, and was not disappointed. The speed of the system's deployment was based on Infor's understanding of the transit industry and ScotRail's business processes, as well as Infor's robust cloud infrastructure. Mobile access via tablets helps support real-time asset management in the field, while integration of data across key systems bolstered visibility companywide. In addition, Infor EAM's intuitive interface made it easy for the staff to get up to speed quickly.



Business Systems for Energy
T +44 (0)207 121 4703 | E info@touchstoneenergy.co.uk
W www.touchstoneenergy.co.uk

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