WHAT TO LOOK FOR IN A CMMS/EAMSOLUTION
Organizations implement maintenance and asset management software solutions to improve efficiency, productivity and operational performance, but choosing a solution is no easy task. There are hundreds of Computerized Maintenance Management Software / Enterprise Asset Management (CMMS / EAM) providers available, and all can claim to have the solution you need. How do you know which is the right choice for your organization’s unique needs?

Before you begin your CMMS / EAM search, it is important to understand why you need to make a change. Could you improve your current maintenance processes and procedures? Are you experiencing frequent equipment failures? Is your MRO spending out of hand? A new CMMS / EAM solution has the potential to solve those issues, but your organization needs to create a strategy for implementation, training, adoption, establishing new processes and continuous improvement. Keep in mind that a Best-in-Class solution provider should partner with you every step of the way, so the process is smooth, simple and your organization will benefit from a high user adoption rate and quicker return on investment (ROI). While evaluating why you need a CMMS / EAM solution, also determine which, if not all, of the following benefits will be most important to your organization:

- Improved maintenance productivity
- Maximized asset performance
- Increased production uptime
- Streamlined work processes
- Reduced operating costs
- Improved OEE
- Easily capture and record events
- Effective maintenance planning and scheduling
- Able to manage all assets from single platform
- Better control over costs and expenditures
- Reduced MRO inventory
- Improved purchasing efficiency
- Reduced energy usage
- Ensured regulatory compliance
- Improved warranty management

Cost will always be a factor when selecting a new software solution, but there are several other important characteristics you will want to look into throughout your CMMS/EAM provider evaluations. By no means is this a comprehensive list, but you should find it beneficial in your pursuit of a new maintenance and asset management solution.
CUSTOMER-FOCUSED
The mission for any software vendor should be to deliver products that improve their customers’ business operations and help drive success. The solution providers you review need to understand and listen to their customers, and the CMMS / EAM solution should be designed with the end users in mind. The solution should be easy to use and configurable based on your organization’s unique needs. The provider should welcome two-way communication, and any solution and technology updates, advancements and improvements should be aligned with customers’ feedback and functionality requirements.

EXPERIENCE AND SPECIALIZATION
Make sure your vendor can demonstrate a long and successful track record of providing maintenance and asset management solutions and supporting services. Ideally, the CMMS / EAM solution is designed, implemented and supported by maintenance professionals, so you know the solution will be easy to use and efficient. By choosing a provider that specializes in CMMS / EAM solutions, you can also rest assured that your software is always of the upmost importance and constantly updated, maintained and enhanced.

It is also vital that your solution provider have knowledge and a deep understanding of you industries needs and requirements. If you are a Manufacturer, you should consider solution providers who specialize in Industrial sectors. Consider this: If you were having problems with your eyes, a general practitioner would not be the most qualified to diagnose your issues. Instead, you would want to visit a specialist such as an optometrist. The same is true for maintenance management solutions. Do not settle for generalists who may not fully understand your industry. By finding specialists with extensive knowledge and experience in your industries operations, regulations and necessities, you will benefit from a CMMS / EAM solution that provides all the industry-specific functionality your organization requires.

FEATURES AND FUNCTIONALITY
Every organization approaches maintenance differently, and your maintenance strategy will continue to evolve over time. Be sure to choose a solution that can meet your needs today, as well as into the future. Today, you may be operating a break/fix approach and need a solution to help you simply open and close work orders. Eventually, though, you may be hoping to improve efficiencies and begin scheduling preventative maintenance work and then move towards predictive maintenance. The CMMS / EAM solution you choose needs to enable you to continue to improve maintenance efficiencies today, tomorrow and well into the future.
If you are looking for a CMMS / EAM solution to maximize your asset performance, control maintenance costs and improve your operational efficiencies, it is important to select a solution that provides all the functionality your organization requires. Here is a list of basic CMMS / EAM modules that are beneficial to most maintenance organizations:

- **Equipment** - repository for asset information, including specifications, purchasing, warranty, multiple meters, cost history, etc.
- **Work Orders** - provides complete work process management from quick and easy initiation of work orders through work planning, scheduling, execution and completion
- **Preventive Maintenance** - generates PM work orders that can be scheduled based on time and/or units
- **Inventory** - provides tracking of Maintenance, Repair and Operations (MRO) inventory, including multiple plant and storeroom environments, and maintains cost and transaction history
- **Event Tracking** - tracks any type of event that occurs within a plant, such as accidents, emissions, inspections, corrective actions, audits, work orders, etc.
- **Resources** - provides basic information for employees and contractors, including contact information, individual skills, pay scales, craft certifications, job classifications, approval authority, roles, training history and employee related documents
- **Requisitions** - used to enter requests for goods and services and should be linked with the Work Order Module to allow the user to plan the resources needed while simultaneously creating a new requisition
- **Multiple Warehousing** - supports multiple locations, warehouses and/or storerooms within a single plant with the ability to transfer materials between them
- **Scheduling** - selects work orders from the backlog and drops them into a schedule based on the work assigned to a particular supervisor, for a given geographical area or other criteria
- **Purchasing** - combines work order planning for materials, tools, services and purchasing requisitions and tracks all requisitions from initial entry and approval through purchase order (PO) issue, receipts and invoicing
- **Invoice Matching** - provides the ability to match invoices with POs and invoiced costs that are not associated with a PO
- **Security** - provides complete access security at the function, window and the data element levels
- **Analytics** - Configurable maintenance Business Intelligence (BI) solution that gives instant insight into the unique KPIs and metrics that are important to your organization's success
Every CMMS / EAM provider’s solution and modules will be slightly different, so once you have determined what will be most important in improving your organization’s efficiency, productivity and operational performance, compare the solutions side-by-side. Many vendors also provide advanced capabilities, such as Document Linking, Multiple Plant Codes, direct linking to Supplier eCatalogs and solutions designed for specific roles. While many CMMS / EAM solutions can provide functionality for the most mature maintenance organizations and appear complicated, Best-in-Class solutions are configurable and allow you to use only what you need when you need it. Try to visualize the big picture when evaluating solutions, and realize that what you utilize now may not be the same in the future.

**FLEXIBLE DEPLOYMENT**

How you deploy the CMMS / EAM solution can have a huge impact on your organization, so it is important to understand the different options and how they affect your budgets, IT resources and end-users.

- **Onsite** deployment means that the software is locally installed within your network. This will require IT support for installation and applying upgrades and new releases in addition to server hardware and database technology. You usually will pay a one-time license fee, and implementation costs are typically the highest for this option.

- **Cloud computing** takes the risk out of implementing new software by eliminating large up-front investments and the need for ongoing IT resource involvement. The software is accessible over the internet, so users only need network access. In order to ensure that your data is safe and secure, you will want to make sure that your software provider’s network and upgrades, new releases, etc. will be automatically applied to your software.
  - **SaaS (Software as a Service)** – There are typically no license, server, database licenses or maintenance fees required, instead you are “renting” the software and simply pay a monthly fee per user.
  - **Online/Hosted** – You own the software and data, but it is hosted on the solution provider’s network. You will pay a one-time license fee for your users in addition to the annual hosting and maintenance fees.

How to budget for your CMMS / EAM solution is an additional and important element of the decision making process, and it may come down to whether or not it will be a capital expenditure (CAPEX) or operational expense (OPEX). Capital expenditures tend to be investments which show up on the balance sheet and are depreciated over time, whereas operating expenses show up on the profit and loss account and relate to expenses incurred on an ongoing basis. Another key difference is that operating expenses are tax deductible, whereas capital expenditures are not.
An Onsite deployment will most likely mean that your software purchase is a capital expenditure for your organization, while SaaS is typically paid from maintenance operational expense accounts. The Online/Hosted deployment option can be a hybrid with the software purchase being a capital expenditure and the maintenance and hosting fees come out of the maintenance operational expenses.

There is no right or wrong deployment option, so you need to choose what makes the most sense for your organization. Keep in mind that your needs may change and grow over time, so the deployment method you choose today might not be the best option in the future. You should make sure that your CMMS / EAM solution is the same product across all deployment methods and that it would be an easy switch if you ever needed to move to another option.

**GETTING UP AND RUNNING**

It is important to realize that software functionality alone will not deliver ultimate value and savings for your organization. In fact, industry research shows that up to 80% of all CMMS / EAM implementations fall short of achieving ROI goals. The baseline tools and methodologies you need in order to generate a quick and positive ROI are:

- **Strategy** - Progressing your asset maintenance practices from reactive, preventive and predictive strategies
- **Organization** - Organizational structure that will help evolve to a world class maintenance organization
- **Processes** - Structured maintenance processes to ensure quality data collection and efficiency
- **Standards** - Recommended data standards to drive equipment ease-of-use and optimized reporting
- **Performance** - Required metrics to measure
- **Continuous Improvement** - Establish results and measure progress for organizational improvement

When evaluating CMMS / EAM solutions, consider the configuration methodology and how that will impact the implementation process. A truly integrated CMMS / EAM solution should come preconfigured with Best Practices standards, codes and metrics, meaning your organization is able to immediately leverage the configuration and get up and running quickly. By selecting a solution with built in processes and easy-to-use data import tools, you will experience high adoption rates and avoid costly, consulting-intensive implementations. Your data import tool should also allow for both static and historical information to be pulled from a legacy system or spreadsheets, so you avoid losing any past critical asset information. Many CMMS / EAM vendors will talk of ‘Best Practices,’ but you should clarify the details and get examples of what you will receive ‘out of the box’
Additionally, your solution provider’s main mission should be to help you become vastly successful and act as your guide and consultant throughout your relationship – from selection to implementation to training and beyond. You should always have a champion to consult with when you need assistance or looking at potential upgrades, additional modules or major organizational changes.

**MOBILITY**

You are looking to your CMMS / EAM solution to help your organization simplify and streamline maintenance processes, and more and more organizations are using smart phones and tablets for increased convenience and productivity. Many solutions are web-based, but you should ensure that there is anytime, anywhere access for you users that spend most of their time “in the field” and away from desktop computers.

Some maintenance roles will require mobile solutions more so than others, so take the time to think about the staff members that would really use mobile devices to complete their work more efficiently. For example, your technicians spend most of their time away from desks working on equipment, so the ability to access and complete work orders on a tablet or smartphone is imperative in streamlining the work process and minimizing non-productive time (NPT). On the other hand, an MRO Stores Clerk would not have as much need for mobile device access since a majority of their duties will take place in the storeroom facility.

**SUPPORT AND SERVICES**

Customer support is one of the most important areas to consider when evaluating solution providers because the relationship should not end with the sale of the product. You need a CMMS / EAM partner that offers a support framework for the initial system implementation, training and on-going customer care. You will also need seasoned industry experts for all implementations and training needs and certified professionals that are available to promptly answer your questions and discuss your concerns. For organizations with non-stop operations, 24x7 access to support will be essential.

To make sure you continue to get the most from your CMMS / EAM solution year after year, look at vendors that offer consulting and services for assessment and problem analysis, solution definition and implementation—from education and training to turnover and operations. Your provider should learn your individual organizational needs and then tailor a solution plan just for you from Day One.
SCALABILITY

As your organization expands and evolves, you will need a CMMS / EAM solution that grows with you. In addition to functionality that can scale as your organization continues through the Evolution of Maintenance, you should select a solution that can support you whether you need a 1 user environment or if you are looking to deploy hundreds or thousands of users. If your organization is large and operates in multiple plants, you of course will want to implement a solution that can accommodate numerous locations. Some solutions are limited when it comes to international sites and languages, so if you have international operations, you will want to ensure that all facilities will be able to utilize the CMMS / EAM software – both with multiple languages, currencies and solution support.

INTEGRATION TO YOUR EXISTING SYSTEMS

Every organization’s approach to maintenance is unique and uses different tools and solutions to support their strategy. If you currently use an Enterprise Resource Planning (ERP) solution to manage MRO requisitions, inventory, procurement and/or invoices, you will want to ensure that your solution provider can provide a seamless and flexible integration between the CMMS / EAM you implement and your existing ERP system. The same is true for any other operating systems you may currently be using, such as SCADA or Predictive Maintenance (PdM) systems. Standard formats should be used to extract business data, transform configurations and load data to and from the CMMS / EAM solution and your existing solutions.

SUMMARY

While all of the characteristics above are key considerations in your CMMS / EAM selection process, you should not begin your search until you truly understand why your organization needs to make a change. Then, prioritize the CMMS / EAM characteristics based on what is most important to your organization and what you are looking to accomplish. Vendor and software evaluations can take as little or as much time as you want, but it is always more beneficial if you can spend significant time getting to know the providers’ history and expertise, exploring the software applications and functionality in depth and really understanding how the CMMS / EAM solution can help you today and well into the future. There are endless solution providers that are eager to earn your business, but like with any investment, you want to ensure that you choose the right fit for your needs.
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