**Technology Evaluation Centers**

2013 Market Survey Report:

What Organizations Want in

Enterprise Asset Management (EAM) and Computerized Maintenance Management System (CMMS) Software

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# About This Report

This report is based on aggregate data collected from 280 EAM/CMMS software comparisons performed using Technology Evaluation Centers' (TEC's) TEC Advisor software selection application during 2012. TEC Advisor contains detailed information about product capabilities for a wide variety of enterprise software solutions, including EAM/CMMS solutions.

Using TEC Advisor, business decision makers can define their companies' high-level EAM/CMMS software requirements in order to identify a working list of solutions to evaluate in depth. They can then compare how, and how well, different solutions support their requirements.

## The Value of Peer Assessment

Although each organization has its own unique EAM/CMMS requirements, it's useful to consider what other companies are seeking in terms of features, pricing, and specific technical and methodological considerations.

Studying what your peers and competitors are looking for in an EAM/CMMS solution can help you develop an understanding of what EAM/CMMS software vendors offer, what other companies have identified as important requirements, and what might be a good fit for your own organization.

## Start Your Own EAM/CMMS Selection Project with TEC Advisor

You can use TEC Advisor to perform your own in-depth EAM/CMMS selection project. Using TEC Advisor you can see how well more than 30 EAM/CMMS solutions address your company's unique business needs.

To start your TEC Advisor EAM/CMMS selection project, visit this link.

# Why EAM/CMMS?

Enterprise asset management systems typically enable the planning, controlling, and monitoring of assets and events. Assets may be either physical, information technology (IT), or digital. This knowledge base includes criteria for comparing general computerized maintenance management system (CMMS) functionality, fleet maintenance, workflow, reporting, and other areas that are necessary to support asset management practices.

In order to properly manage large volumes of assets across an organization, a company needs a system that will, for each asset, provide detailed definitions of the asset, the ability to track the condition of the asset, track inspections, and identify and manage the work that needs to be performed on the asset.

Computerized maintenance management capabilities of a system include creating and managing work orders for assets, scheduling preventative maintenance, tracking complete history of assets, including calibration, and providing for the full management of the maintenance associated with vehicles and similar assets.

Some benefits of EAM/CMMS systems include:

- lifecycle tracking of physical assets—knowing exactly where an asset is and its disposition;

- the ability to manage facility and physical asset maintenance paperlessly; and

- the ability to ensure that all assets have been calibrated and maintained appropriately.

Thus, organizations without effective EAM/CMMS software run the risks of being unable to provide a full account of all physical assets owned; not being able to properly schedule maintenance of physical assets; and having no method for determining how many IT assets (computers and software licenses) need upgrading or replacement.

# Characteristics of EAM/CMMS Software Most Frequently Sought by Potential Clients

The TEC model of research on EAM/CMMS addresses an organization's asset management and computerized maintenance management functional needs. Vendor solutions in this space support a range of asset management functionality for asset definition, inspections, and condition monitoring. The solutions also support the maintenance management with work order management, equipment preventive maintenance, and recording the complete maintenance history of an asset.

The TEC model for EAM/CMMS also has functional criteria modules that show the extent to which vendor solutions handle financials, human resources, purchasing management, and inventory management.

According to TEC data, the functionality that most organizations today are seeking within an EAM/CMMS software package includes:

- asset and maintenance management, including equipment history tracking and facilities/equipment maintenance control;

- back office functionality: purchasing management, financials and accounting, and workforce management;

- inventory management and control, including advanced planning and scheduling, preventive maintenance, and spare parts planning and distribution; and

- technology and business platform capabilities: analytics and reporting, report management.

# Peer Data: Frequency of Functionality Sought

## How identifying high-level functionality at an early stage helps narrow the product list

Reviewing peer data is an important part of the early stages of an EAM/CMMS selection project. Analyzing what your peers and competitors are looking for can help you understand trends in the EAM/CMMS software space, and potentially discover newer EAM/CMMS functionality that you did not know was available.

Once you discover the general shape of the EAM/CMMS landscape, you can start to ask questions about what makes certain solutions and features so popular, and whether the processes those features support would be appropriate for your organization. This information can also be useful as a touchpoint to compare against priorities that you determine in accordance with your industry, region of operation, and size.

That information can help you rationalize the need for an EAM/CMMS solution, define your company's unique EAM/CMMS software requirements, set the scope of your selection project, and determine the appropriate stakeholders.

## Results

The graph below shows the 20 features or functions that were most frequently identified as requirements for EAM/CMMS software.



**Top 20 Functionalities**
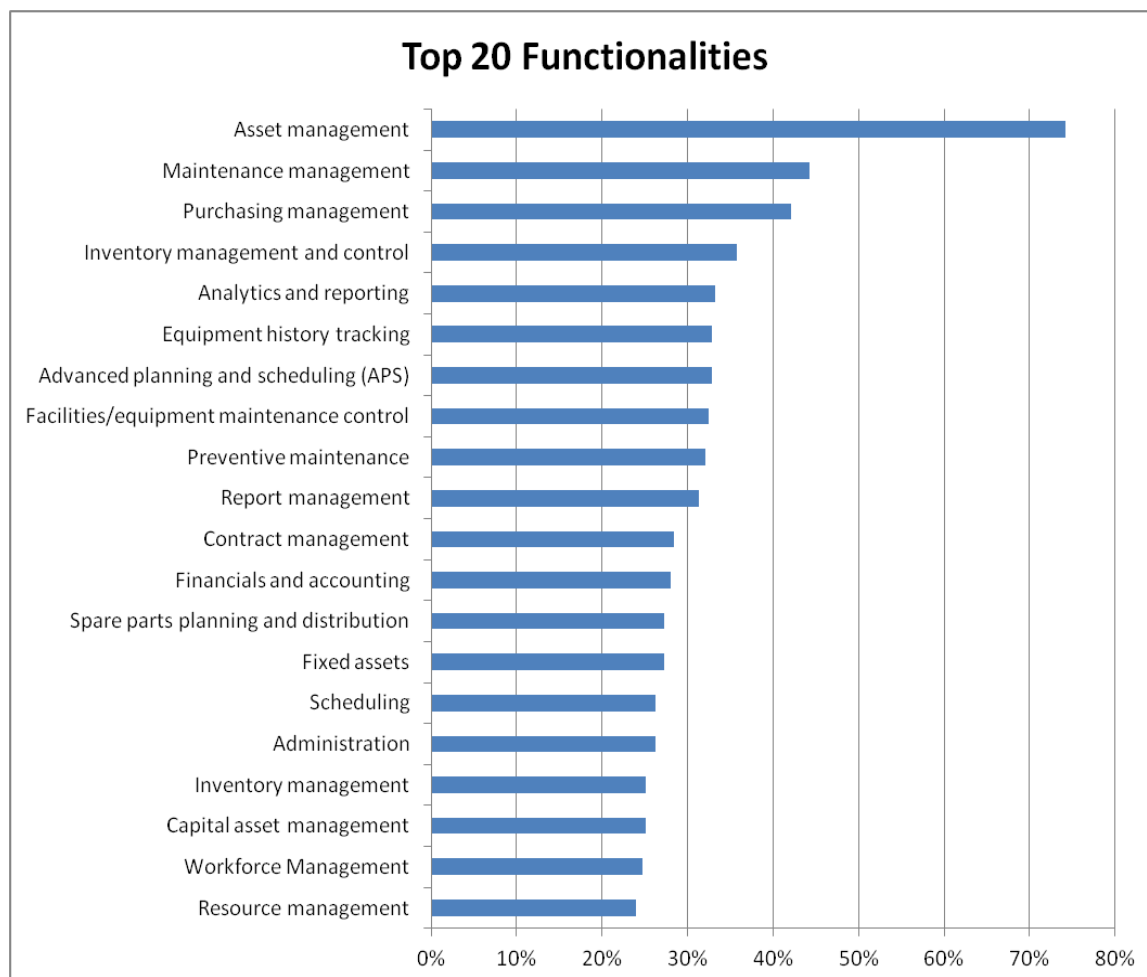
It is no surprise that the most requested (74%) high-level EAM/CMMS functional area for companies involved in an EAM/CMMS software selection project is asset management, though it is a little surprising that maintenance management would only be required for 44% of the projects. This implies that some 30% of the selection projects are for non-capital-intensive industries.

TEC data also reveals that companies looking to purchase an EAM/CMMS system are struggling with other back office system capabilities, including purchasing, financials, and human resources needs. In addition, some 28% of these companies require support for contract management.

TEC data also reveals that analytics and reporting, and report management are both required functionality for a third of organizations seeking EAM/CMMS software (33% and 31%, respectively). This is consistent with other TEC market survey reports run over the past six months.

# Peer Data: Budget Planned for Purchasing an EAM/CMMS Solution

As you define your high-level feature requirements, your budget will become a key consideration, limiting your choices to solutions that offer as much of the functionality you need as possible for the price you're willing to pay. Reviewing the stated budgets of your peers and competitors will give you a good idea of what you can expect to spend on a typical EAM/CMMS solution.

A budget may also reflect the complexity and size of an organization's operations. Different organizations have different business configurations, and may require several types of services in addition to the software itself (e.g., support, consulting, outsourced services, implementation costs, and costs for data cleansing, management, integration, etc.). It's important to note that budgets include not only the EAM/CMMS solutions themselves, but any of these related services. Companies with lower budgets may be expecting to do more of this extra work themselves, or may simply have decided that they don't need these services.

## Results

The following chart shows the spending levels organizations have initially estimated their EAM/CMMS purchasing budgets at.



**Budget Distribution**
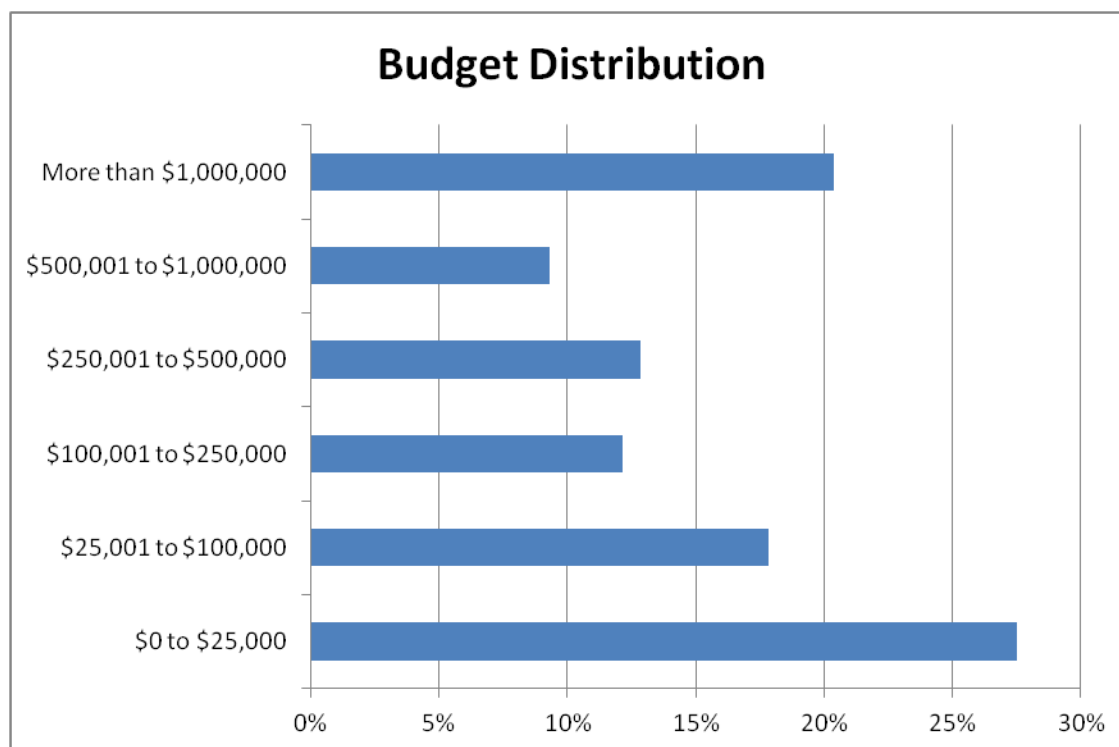
According to TEC data, 28% of the overall number of EAM/CMMS-related selection projects were initiated by companies with budgets of up to $25,000; 18% of the selection projects were initiated by companies with budgets between $25,001 and $100,000; 12% of the projects have budgets between $100,001 and $250,000; the remaining 42% of the EAM/CMMS selection projects are initiated with budgets of more than $250,001.

The large proportion of companies with small EAM/CMMS solution purchasing budgets should be interpreted with a couple of caveats, as the data might be slightly skewed towards smaller-sized budgets. First, companies with project budgets of less than $100,000 (46%) are likely small- to medium-sized organizations with a small number of employees (less than 500). Second, it is also possible that many of these customers are looking for software-as-a-service (SaaS)-based systems, which, typically require monthly payments based on a parameter (e.g. number of users) as opposed to an upfront total license cost.

Also of interest in the budget data is that the proportion of companies seeking a new EAM/CMMS solution that are willing to spend over $1 million is relatively large—just over one-fifth (21%).

# Peer Data: Delivery Model, Access, Standards, and Customization

## How identifying requirements for customization, integration, and standards at an early stage helps narrow the product list

For your EAM/CMMS deployment to be successful, the new solution has to work within your organization's IT infrastructure (e.g., security, quality of performance, etc.), and business requirements (e.g., the product is outsourced, hosted by a third party, or hosted on-premise). It also has to comply with your organizational standards and, where appropriate, industry or governmental regulations.

The delivery model and application accessibility are critical criteria during an organization's software selection process. An organization needs to know whether they are looking for a Web-based solution or require mobile access capabilities.

An organization will also want to consider whether they are looking for a solution that has integrated modules, allows for incremental implementation, and/or has collaborative capabilities.
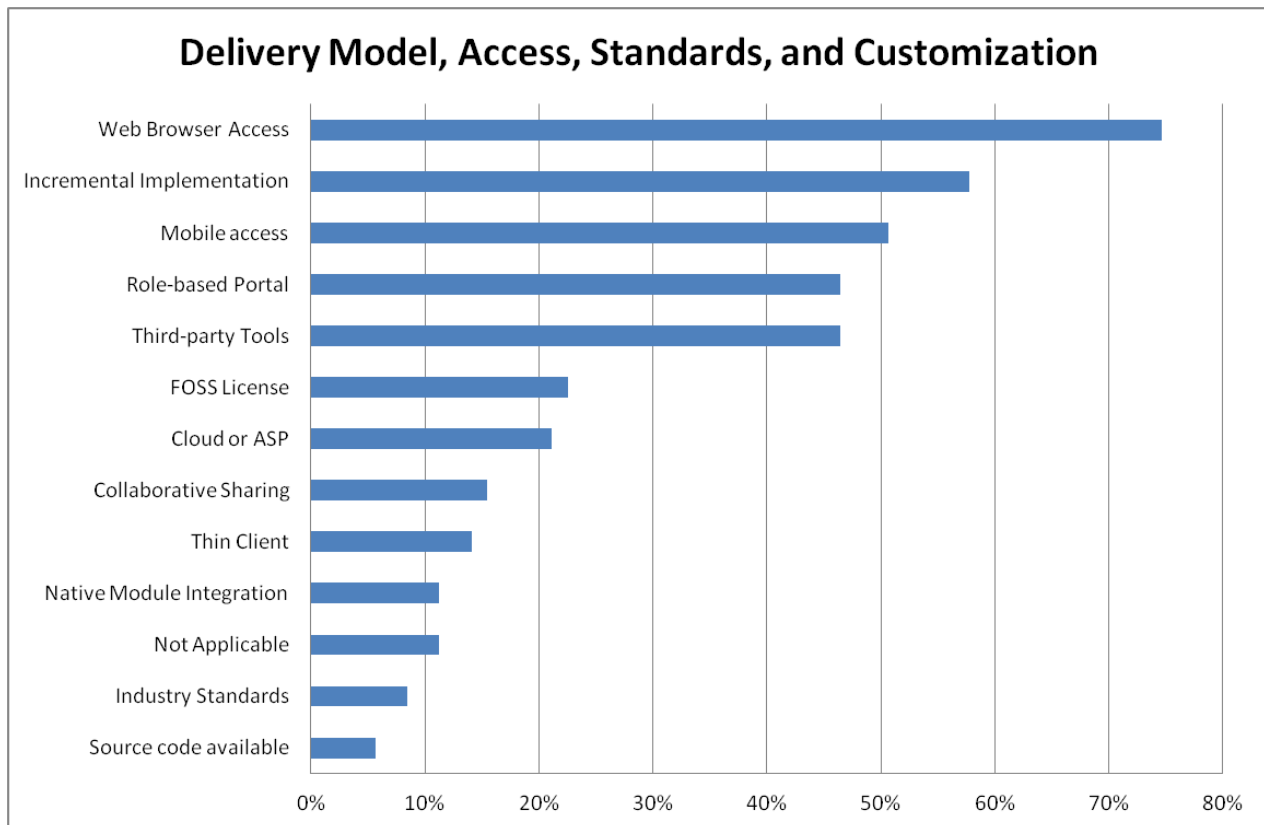
Customization is the ability to modify the software to meet your specific requirements. Depending on the level of customization desired, an organization may want to consider whether they require access to the source code, and whether the solution is licensed under an official free or Open Source (FOSS) license.

Integration, on the other hand, is more difficult to define. In some cases, integration may mean getting your EAM/CMMS software to work with legacy systems. In other cases, it may mean getting your EAM/CMMS software to work with your employees' mobile devices.

In most cases, integration is more complicated than it appears, and integration issues affect a variety of departments, people, and processes, all of whom need to be involved in the selection process to some extent.

## Results

The following chart shows how frequently companies selected options for the product to be customizable, able to integrate, and adhere to standards.

**Delivery Model, Access, Standards, and Customization**

| Category | Approximate % |
|---|---|
| Web Browser Access | 75% |
| Incremental Implementation | 58% |
| Mobile access | 51% |
| Role-based Portal | 46% |
| Third-party Tools | 46% |
| FOSS License | 23% |
| Cloud or ASP | 21% |
| Collaborative Sharing | 15% |
| Thin Client | 14% |
| Native Module Integration | 11% |
| Not Applicable | 11% |
| Industry Standards | 8% |
| Source code available | 5% |

It is no surprise that three-quarters (75%) of the companies involved in EAM/CMMS software selection projects require Web browser access to the system. Yet, it is interesting to note that in 2012, only slightly over 20% of the selection projects would require a cloud or ASP delivery model.

According to TEC data, 58% of the overall number of EAM/CMMS-related selection projects require incremental implementation flexibility. With EAM/CMMS systems being what they are, it's necessary for organizations to have the flexibility to incrementally implement system functionality over time.

About half (51%) of the companies seeking new EAM/CMMS solutions require mobile access and are looking for a role-based portal (46%). Similarly, companies looking to implement EAM solutions are looking for third-party tool integration 46% of the time.

According to TEC data, about one-quarter (23%) of companies seeking EAM/CMMS software are looking for solutions under a FOSS (free or open source license). The companies looking for an FOSS license are, more than likely, those with limited budgets for implementation.

**Legend-Delivery Model Extended Descriptions**

| Graph Title | Extended Description |
|---|---|
| Web Browser Access | Web browser access for use of selected system areas |
| Incremental Implementation | Functional modules can be implemented incrementally |
| Native Module Integration | There is tight native integration between functional modules. |
| Third-party Tools | The vendor is amenable to working with third party tools and software. |
| Mobile access | Mobile access to enterprise data in the product offering is available |
| Role-based Portal | Total portal access to the system, which is role-based and customizable |
| FOSS License | The software is licensed under an official free or Open Source license (recognized by the Free Software Foundation or Open Source Initiative). |
| Cloud or ASP | Solution can be used via a cloud service or ASP type of model |
| Industry Standards | There is tight native integration between each supported industry standard. |
| Collaborative Sharing | There is collaborative sharing of system data, automatic processes and workflow. |
| Thin Client | There is a thin-client link to the Internet and selected system areas. |
| Source code available | The vendor is amenable to providing source code. |
| Not Applicable | Delivery model, standards and customization not identified as a requirement |

# Peer Data: Server Platforms

## How identifying server platforms at an early stage helps narrow the product list

Many organizations already have specific server configurations, some based on a single platform, others on a mix of several platforms, depending on which applications they need to support. Analyzing the server platform breakdown among your peers and competitors will help you get a clear idea of what platforms are most in use. You can use this information to draw some conclusions about which platforms are best supported by EAM/CMMS vendors, and which ones have the most mature third-party ecosystem for support, consulting, and implementation or outsourcing services.

## Results

The chart below shows how frequently people requested that the EAM/CMMS software be available for the following server operating systems (or, as the case may be, available as a hosted or software-as-a-service [SaaS] application).
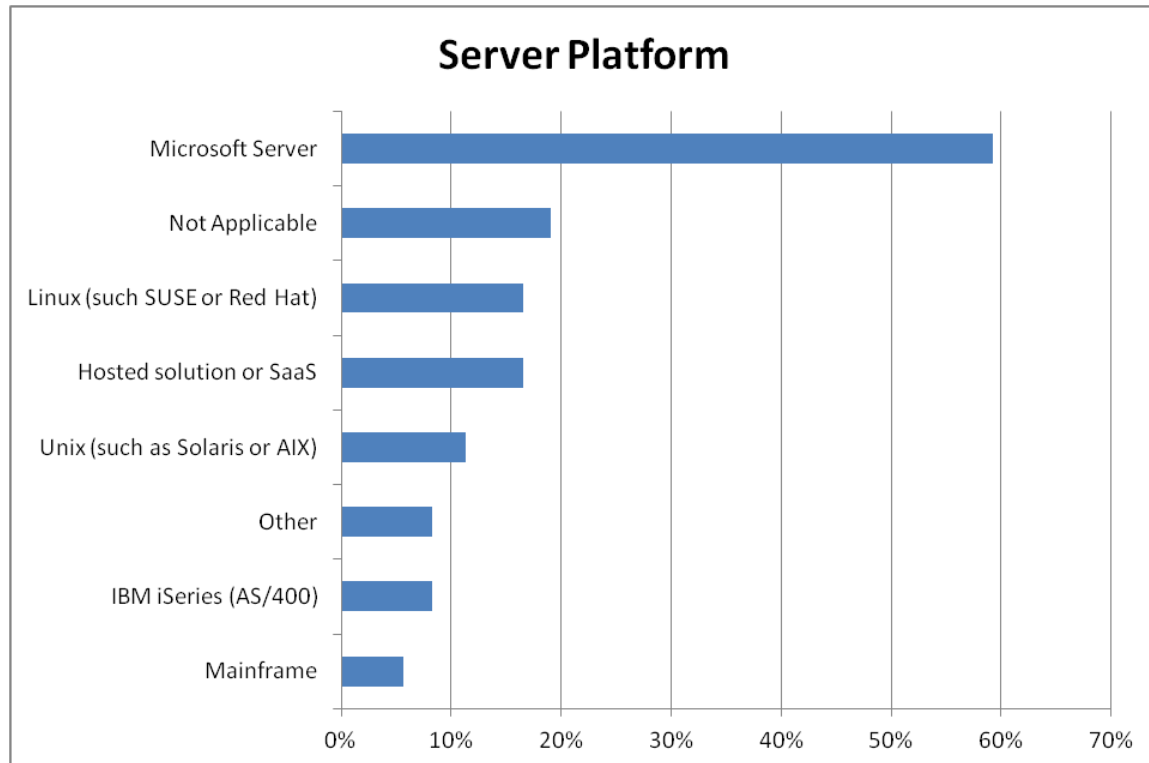


According to TEC data, almost 60% of the overall number of companies involved in EAM/CMMS selection projects are looking for their new system to support a Microsoft server platform (such as Windows 2003, 2008, or 2012). About 16% of the selection projects for EAM/CMMS would like their new system to support Linux, while the same number are looking for a hosted or SaaS solution—the requirement for Linux and SaaS servers now exceeds the need for a commercial Unix platform (Solaris or AIX), IBM iSeries (AS/400), or a mainframe as desired server platforms for an EAM/CMMS solution.

# Peer Data: Database Platforms

## How identifying database platforms at an early stage helps narrow the product list

As with server platforms, some organizations rely heavily on specific database platforms, while others have a mix of databases in place. Because the database is the repository for all the data that feeds the EAM/CMMS software, choosing the right database is a critical part of EAM/CMMS selection projects.

When comparing EAM/CMMS solutions, your choice of database platform will limit the number of solutions available to you, although you may decide that it's worth adopting a new platform specifically for EAM/CMMS.

Looking at the database platforms selected by your peers and competitors can help you get a sense of which platforms are most widely adopted for EAM/CMMS, and which are likely to have well-developed third-party ecosystems for implementation support, consulting, outsourcing, etc.

## Results

The chart below shows how frequently people requested that the EAM/CMMS software work with the following database systems or, as the case may be, be available as a hosted/SaaS application.
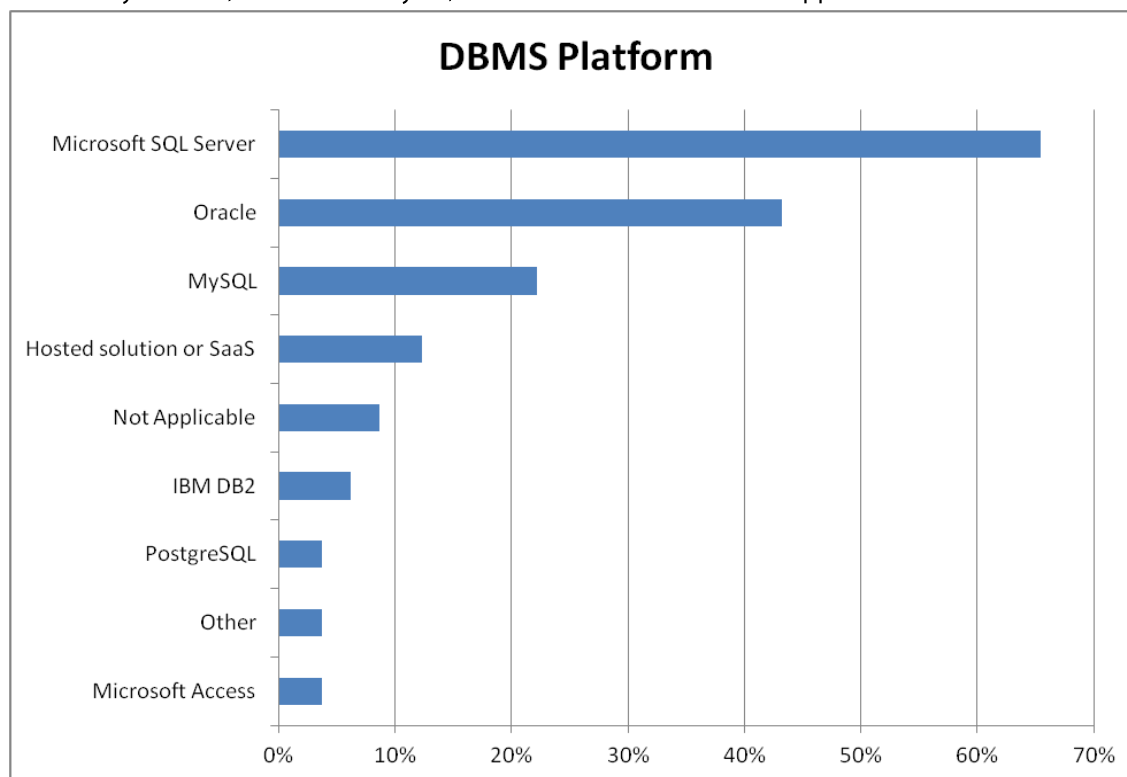


According to TEC data, about two-thirds (65%) of companies involved in EAM/CMMS selection projects are looking for their new ERP system to be compatible with the Microsoft SQL Server database platform; almost half (43%) are looking for Oracle DBMS compatibility; while 22% are also looking for a solution that supports the MySQL open source database now owned by Oracle Corp. IBM DB2 was chosen 6% of the time while hosted or SaaS was chosen 12% of the time.

# Conclusion

This report is intended to help you spot trends in the EAM/CMMS space. By studying what your peers and competitors are looking for in EAM/CMMS solutions, you can develop a good understanding of what EAM/CMMS vendors offer, what other companies have identified as important requirements, and what functionality might be a good fit for your own organization.

These insights can prove invaluable in the early stages of your EAM/CMMS selection project. However, it's important to remember that the data behind this report show two things. First, this report is an overall aggregate without respect to industry, region, or organization size. Second, this report reflects what business decision makers requested after carefully considering their own organizations' unique EAM/CMMS requirements.

For your own EAM/CMMS selection project to be successful, you must carefully define your organization's requirements before you begin evaluating potential solutions. By starting with well-defined requirements and carefully following a best-practice software selection methodology, you significantly increase the chances of finding the best EAM/CMMS solution for your business.

Technology Evaluation Centers (TEC) helps private- and public-sector organizations choose the best enterprise software solutions for their unique business needs—quickly, impartially, and cost-effectively. TEC's online Evaluation Centers, containing IT research and extensive knowledge bases that catalog vendors' support for thousands of enterprise software features and functions, are the leading resource for IT decision makers around the world. By combining that information with a proven methodology, unique Web-based software selection platforms, and years of software selection expertise, TEC delivers an unmatched range of online software evaluation and selection services that bridge the gap between enterprise decision makers and the vendor/value-added reseller (VAR) community.

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