Key Criteria for Choosing an Enterprise Asset Management System

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Summary

Enterprise Asset Management system should be the platform that brings the financial and operational information of equipment and other enterprise assets into one place, to support businesses and government agencies to make the best decision in managing their assets. In order for the EAM system to be that platform, it needs to meet certain technical requirements. Specifically, it needs to be Extendable, Flexible, and Mobile (EFM). When you are procuring an EAM system, you should examine the features from each vendor in each area of the Extendable, Flexible, and Mobile framework.

What is Enterprise Asset Management System?

Enterprise Asset Management, simply put, is to manage the activities within the lifecycle of assets, both their physical movement and condition and their associated financial information, to ensure that the organization's objectives with these assets are achieved.

Many standard organizations have provided guidance on the concept of "asset management" in similar ways:

For example,

"Asset management" is the set of coordinated activities that an organization uses to realize value from assets in the delivery of its outcomes or objectives. Realization of value requires the achievement of a balance of costs, risks and benefits, often over different timescales."

Another example,

Asset management requires that the organization examines the need for, and performance of, assets often at different hierarchical levels (e.g. individual "assets" or integrated sets that make up "asset systems") and the application of different analytical approaches at differing asset life cycle stages. It enables the development of a life cycle picture of what is to be done to assets in relation to what is to be achieved from them.
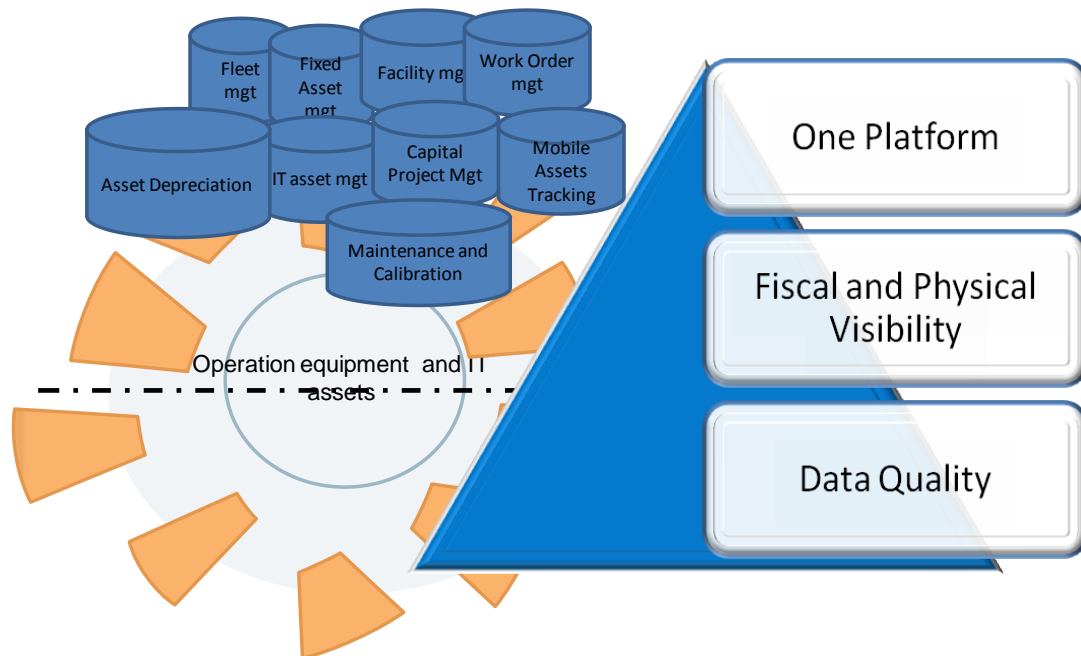
Enterprise Asset Management

What it does:

✓ Manage the fiscal and physical information of enterprise assets

✓ Manage all assets: capitalized assets consumable assets, IT hardware and software, facilities

✓ Track what you have, where they are, and who have them

✓ Track all the costs associated with the assets: acquisition, maintenance, replacement, depreciation, residual, disposal

✓ Support the best practice business processes for property management, as defined in ASTM and soon to be adopted asset management standards ISO 55000

A useful and often quoted definition of asset management comes from the text of the British Standards Institute Publically Available Specification (PAS) 55: Optimal Management of Physical Assets.

Asset management is the "systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems, their associated performance, risks and expenditures over their life cycles for the purpose of achieving its organizational strategic plan."

The Enterprise Asset Management system should be the central point that receive all the physical and financial information of assets from all touch points in the asset's lifecycle, and update the information to other systems. The Enterprise Asset Management is a separate system from the other systems and tools, but it's a system that connects with all the other applications, such as procurement, fixed asset management, project management, maintenance, warehouse management, mobile asset tracking, resource scheduling, and work order management tool. That's why the Enterprise Asset Management system should be a platform.

Enterprise Asset Management System as a Platform

Unfortunately, this concept of Enterprise Asset Management system as a platform is still new. There are two key reasons for the lack of adoption for this concept: out dated legacy technologies and lack of focus on achieving better return on investment in equipment.

- From a technology perspective, Software as a Platform (SaaP) is a new concept. Most organizations are still dealing with a lot of applications that don't talk to each other. They haven't started thinking about how to streamline their application portfolio.
- From an operational perspective, enterprise asset management had not been an operational focus until recently. In some asset heavy industries like manufacturing, oil and gas, they have been focusing on the Maintenance applications, or Computerized Maintenance and Management System (CMMS). The CMMS application will help to manage the costs of their fixed assets, and that's where they focus on managing assets. That's perhaps why the sometimes, Enterprise Asset Management (EAM) system is discussed as if it were in the same category of interchangeable with Computerized Maintenance and Management System (CMMS). But EAM and CMMS are different applications. EAM is better suited to be the platform, why CMMS is perhaps one application on the platform for most organizations.

In the past few years, when businesses are dealing with shrinking operating margins and government agencies are dealing with shrinking budget, they begin to focus on extracting value from managing assets. That's why there is an increasing attention to the enterprise asset management systems, which prompted the update of the standards for enterprise asset management business processes and tools. The ISO 55000 for asset management is going to be introduced in 2014, and most organizations are gearing up to be certified for that standard.

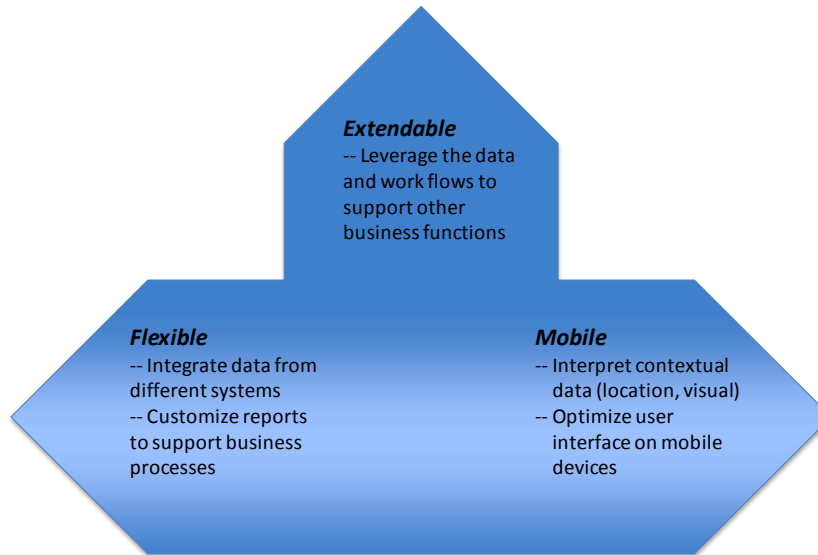## Requirement for an Enterprise Asset Management System

Asset management is best served by an information management system approach. That information system should have the breadth and depth to integrate information across functionally and from detailed operational activities. Across functionally, it should integrate with procurement, finance, and HR systems. Vertically, it should connect with the downstream asset management activities such as maintenance records and field inventory auditing updates.

In the draft ISO International Standard for Asset Management, it suggests using "an integrated management systems approach". It allows an organization's asset management system to build on elements of other existing systems, such as quality, environment or safety, and can reduce the effort involved in developing and maintaining processes for multiple management systems.

In the draft ISO International Standard, it outlined that the requirements for an asset management system should include 7 elements: Organizational Context, Leadership, Planning, Support, Operation, Performance Evaluation, and Improvement.

To support the "integrated management system approach", the Enterprise Asset Management system, as a management platform, should be Flexible, Extendable, and Mobile.

The Flexible, Extendable, and Mobile (FEM) framework for EAM system

The Flexible, Extendable, and Mobile framework will ensure that the organizations achieve the objectives of asset management:

- Connect with other systems (owned by different department), share data and business processes, to achieve organizational support and coordinate planning
- Generate customer reports easily to support the monitoring of key performance metrics as agreed to by the organization
- Leverage the mobile technology to improve asset performance and facilitate sharing of information in all computing platforms, to further gain organizational buy-in

Criteria for Selecting an Enterprise Asset Management System

The Flexible, Extendable, and Mobile framework can be used by organizations when they are selecting an enterprise asset management system. Specifically, organizations should ask these questions to understand the vendors' capabilities in these areas:

Flexible
How easy it is to update the metrics for Key Performance Indicators?
How easy it is to build customized reports?
How easy it is to import data from existing systems to the EAM system?
How easy it is to build a connection to existing systems, to support automated data feeds and updates?

Extendable
Can this system support maintenance and work order functions?
Can this system support resource scheduling functions?
Can this system support warehouse management functions?
Can this system provide documentation on the use of equipment and other resources to support reimbursement, work order tracking, subcontractor reporting?
Can this system provide basic inventory management function?

Mobile
Can this system be used on mobile devices with iOS, Android, and Blackberry operating systems?
Can this system track mobile equipment on a map, if they are tagged with GPS devices or RFID tags? Does this system support latest mobile asset tracking technologies?
Does this system support latest mobile asset tracking technologies?
Does this system have a built in middleware to receive information from GPS devices or RFID tags?
Can this system take advantage of the inherent contextual information from a mobile device, such as digital photo, location?

About E-ISG Asset Intelligence

E-ISG Asset Intelligence provides cost effective software solutions to manage enterprise assets. These solutions can be installed on-premise or delivered as Software as a Service. These solutions help customers to streamline their business processes and mange the assets throughout their lifecycle, including acquisition, assignment, maintenance, and disposal.