



SPARTAN
INFOTECH

Enterprise
Asset
Management

March 31

2008

Spartan Infotech Co. WLL

Company Profile

Spartan Infotech Co. WLL is part of the Mohamed Ahmadi group of companies.

The group has over 3 decades of experience in the Middle East and a multi-million Dinar (1USD=0.378BHD) turnover spanning operations such as Trading and Contracting, Cleaning and Maintenance, Cargo Forwarding, Ship Repair, Interior Design and ICT.

Spartan Infotech is led by Ashok Kumar, with over 15 years experience handling the business of reputed brands (Samsung, Fujitsu-Siemens, Emerson, Asco, Seagate Software) as General Manager at the respective country distributors. His last assignment was at an ICT multi-national as Director, Strategy and Corporate Development.

Spartan Infotech is a technology venture and comprises of discrete divisions that run as profit centers under experienced Division Managers. Division Managers are aided by qualified Practice Heads that are abreast of the latest developments in the respective areas.

Spartan Infotech has established strategic alliances with reputed principals in areas such as Enterprise Asset Management, Process Control, Customer Relationship Management, Enterprise Resource Planning, IT Security and implementation of standards based frameworks for IT governance. Other Lines of Business include Consultancy, Implementation and Support of ICT Networks.

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Enterprise Asset Management

Enterprise Asset Management is a series of inter-related business processes through which organizations strive to maximize the useful life of their assets, while at the same time minimizing the total cost of ownership and mitigating the risks associated with asset failure.

“Enterprise Asset Management is a **business paradigm** that integrates strategic planning with operations, maintenance and capital investment decision-making.” - Wikipedia

Thus, a properly designed EAM program draws upon a vast array of corporate resources to combine the operational, engineering and therefore the financial and management visions of business objectives.

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DRIVEN BY INNOVATION

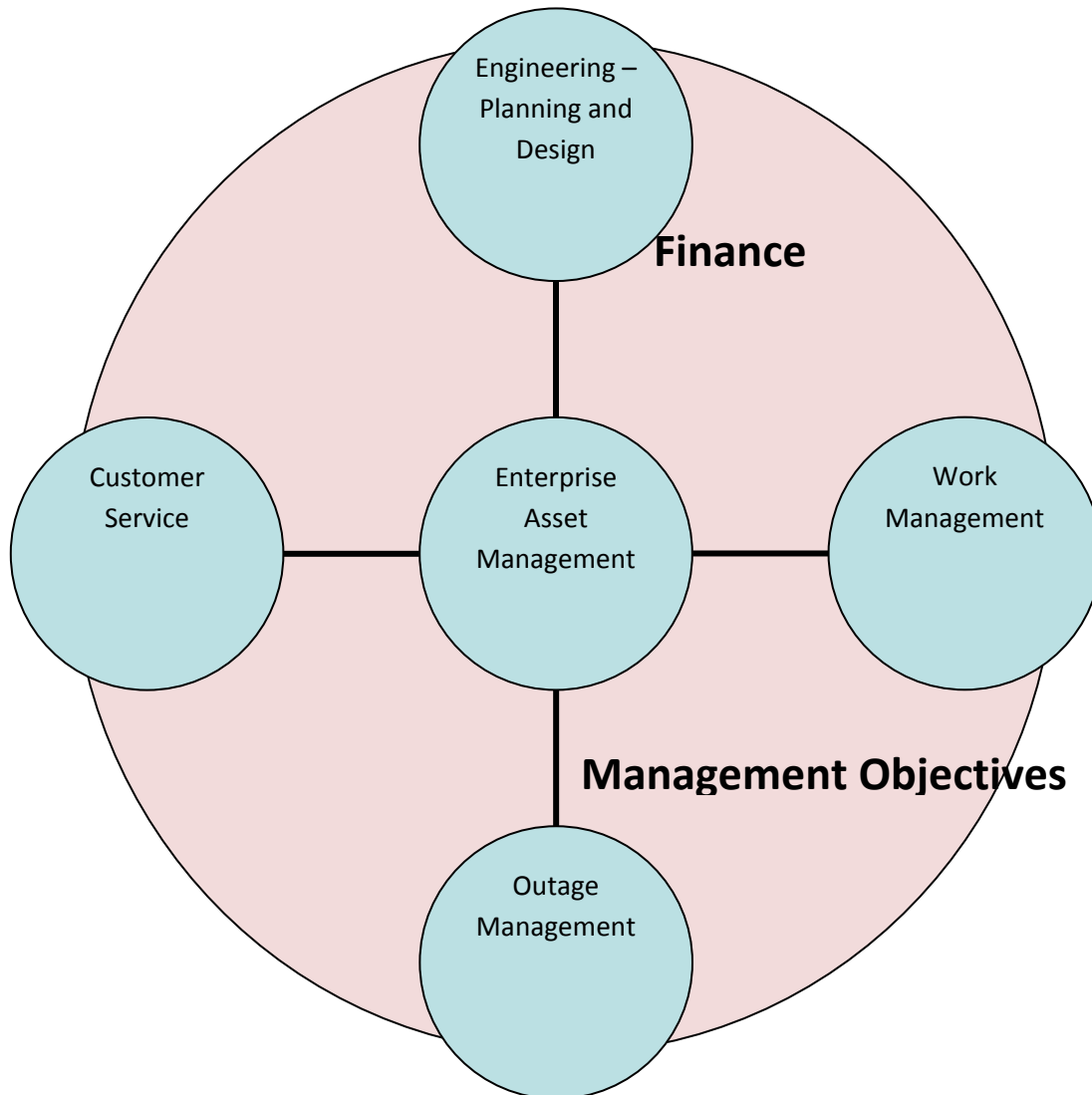


Figure 1: Enterprise Asset Management Model

Effective EAM

An effective EAM consists of these fundamental components:

1. Measurement Metrics and Key Performance Indicators: Accurate details of the organizations' current measurements across departments or functions and a list of KPIs to monitor successful implementation.
2. Business Intelligence: Implementation of business intelligent applications across platforms and functions to record, capture, track the flow of data and process and accurately analyze and report relevant information from different sources (e.g. financial, operational, customer services. Etc.)
3. Methodology: A systematic method of understanding the information generated by the business intelligence and then deriving scope for improvement in asset performance in the organization

Benefits of EAM

The key benefits of Enterprise Asset Management are

1. Increase asset availability by optimizing maintenance strategy
2. Reduce Time waste on asset related information
3. Optimize effectiveness of work force through advanced work planning features
4. Identify under-performing equipment
5. Increased plant availability & productivity
6. Better equipment reliability
7. Higher percentage of planned work
8. Better utilization of work force
9. Improved safety of plant, people & environment
10. Avoid catastrophic failures & forced shutdowns

According to the study "EAM Solutions Deliver Great Benefits," now available from ARC Advisory Group, 60 percent of respondents reported payback within two years, underscoring the effectiveness of enterprise asset management (EAM). Among the survey's findings:

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1. Almost 90 percent of EAM implementations have provided return on investment.
2. The most frequently reported EAM benefit was increased workforce efficiency.
3. For government, the major EAM benefit was reduced inventory costs.
4. The oil and gas industry uses the EAM functions the most.

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Spartan Expertise

The Spartan Infotech STPG (Software & Turnkey Projects Group) division brings together a team of Qualified, Experienced and Committed Staff who specialize in ERP/EAM/PCA/Workflow Solutions

Spartan Infotech has partnered with Lapiz Technical Services who are part of a large technology driven petrochemical industry and services group and have well established credentials in the international arena.

Spartan is armed with the talent, skills and knowledge in the following processes:

1. Maintenance Optimization
 - a. Maintenance assessment
 - b. Criticality analysis
 - c. Reliability Centered Maintenance (RCM)
 - d. Safety integrity Level (SIL)
 - e. Risk Based Inspection (RBI)
 - f. Development of detailed work instructions / maintenance procedures
2. Inventory Optimization
 - a. Cataloguing & Codification
 - b. Inventory analysis
 - c. Spare parts interchangeability
 - d. Initial spares review
 - e. Vendor analysis
 - f. Spare parts obsolescence analysis
 - g. Risk spare analysis
3. Data preparation / migration
 - a. SAP & other ERP (Plant Maintenance / Materials Management module)
 - b. Maximo & other CMMS
 - c. Asset register
 - d. Bill of materials
 - e. Asset hierarchy
 - f. BOM hierarchy
 - g. Equipment master
 - h. Materials master
 - i. Repository of equipment information

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Case Studies

Maintenance Optimisation

1. Large Refinery in Oman
 - a. Maintenance walk-through audit
 - b. Maximo CMMS audit
 - c. Maintenance procedure study
2. Large Oil and Gas production unit in Oman
 - a. Maintenance walk-through audit
 - b. Maintenance and materials system audit
3. Western India Refinery
 - a. RCM training
 - b. Reliability improvement initiative
4. Large cement plant in India
 - a. RCM training
 - b. Criticality analysis
 - c. FMECA (Failure Mode Effect & Criticality Analysis)
 - d. Development of maintenance strategy
 - e. SAP PM module review
5. Large petrochemical plant in India
 - a. Maintenance walk-through audit
 - b. RCM training

Inventory Optimisation

1. Large Gas Operating company in Middle East
 - a. Updation buying description
 - b. Coding and Grouping of MRO items
 - c. Preparation of Bill of Materials
 - d. Inventory Optimization
 - e. Shell Life analysis
2. Large refinery in Middle East
 - a. Inventory review
 - b. Identified potential savings of 30%
3. Large fertilizer plant in Africa

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- a. Identified project surplus, insurance spares, slow moving, non-moving and obsolete items
 - b. Revised reorder points and reorder levels
 - c. Introduced best practice procedures
 - d. Inventory value reduced by 46%
4. Western India refinery
- a. Inventory review
 - b. Identified potential savings of 15%

Cataloguing

- 1. Mining industry in Australia
 - a. Cataloguing of MRO items to INC standard
 - b. Data population using noun modifier templates
- 2. Mining industry in South Africa
 - a. Cataloguing of MRO items
 - b. Classification, data cleansing and data population to eOTD
- 3. Oil industry
 - a. Cataloguing of MRO items
 - b. Classification, data cleansing and data population to PIDX
- 4. For a Southern India refinery
 - a. Cataloguing of MRO items
 - b. De-duplication, data enrichment and data population using Indian standards
- 5. For a large fertilizer plant in Africa
 - a. Classification, De-duplication, Variety reduction using ECCMA eOTD standard
 - b. Motor standardization
- 6. For an energy company in US
 - a. Cataloguing of MRO items