



Better CMMS Management:

The MPulse v7 Work Environment

White Paper



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Executive Summary

Problem

Maintenance decisions can have immediate and severe consequences on overall company operations. When performance and maintenance incidents occur, managers need to know in real time which assets are being affected, the nature and severity of the problem, the impact to company operations, which systems are affected, the likely cause, and how to respond correctly. At the same time maintenance operations must be nimble. They are faced with tighter budgets, reduced staff levels, greater accountability, cross departmental communication responsibilities and a commitment to energy conservation.

Opportunity/Challenge

Web-native applications, with advanced web server technology, customizable interfaces and location independence play a significant role in addressing these problems. First, they offer superior performance in the gathering, measuring and reporting of data. Second, most can be customized to present data specific to an individual's needs or personal specifications via on-screen dashboard gauges and alerts. Finally, maintenance applications that embrace a user-friendly architecture and that interact with other operational and departmental software are more likely to be used and accepted within an organization. Greater involvement results in actionable, reliable, real-time data that is key in maintaining assets at optimum levels, preventing down-time, saving money and conserving energy.

Implementation/Benefits

Success with implementing a CMMS application begins with a committed, proactive management strategy that focuses on maintaining assets at peak performance while optimizing corporate mission objectives. That commitment is advanced when CMMS technology facilitates people working in sync across the enterprise while securely unifying and simplifying complex IT environments, application management systems and processes.

Advantages of browser-based applications:

Enhanced Performance: Unlike early web-based applications characterized by a user interface with limited functionality, today's web-based applications bring together performance, practicality, accessibility, functionality and the perfect blend of centralized/non-centralized computing. Static HTML pages have become dynamic, rich, fully customizable user interfaces that access versatile, powerful software which can trigger a calculation, send an alert, change a status, respond to a measurement or update a screen display, all on the fly. In addition, many web-based applications enable full enterprise integration with other company systems and software thereby enhancing both.

User Friendly: The commonality of the browser interface, the URL address bar, the "Back" button, etc are all familiar and reduce the learning curve for users. Every PC has a browser and many new personal communication devices support some form of browser access, including cell phones and PDAs. Inviting architecture, intuitive navigation and customizable interfaces encourage use. Greater use builds trends, benchmarks and foundations of information that facilitate accurate, accountable management.

Seamless Updates and Maintenance: Web-based is now the preferred way to deliver applications. They can be easily deployed, maintained and managed across all operating systems. At the client level, no installation support is needed from corporate IT as the application resides in a central location and not on individual computers. This means significantly less problems with viruses or interference with other applications, and simpler upgrades. Once changes or a new version are applied to the server, each user is using the update automatically when they log-on.

Client Worksite and Location Independence: Web-based application performance is primarily dependent on the robustness of the web browser (Internet Explorer, Mozilla FireFox, etc.), the power of the computer where the web server resides, and the access speed across the Internet and/or Intranet. Users can be authorized to view as much or as little of the program as required and data is centralized and protected, either within an internal infrastructure or in an outsourced secure environment. Security systems offer assurances that data is safe and available, even if the computing infrastructure is not.

Evaluating Purchase and Deployment Options:

Functionality is Key: *Too often these decision points get jumbled up and far reaching decisions are made for the wrong reason(s). Each decision point should stand on its own merit. Good software should be able to win out on its usability, functionality and performance. Good technology should be able to be judged on its currency, flexibility, connectivity and adaptability. The fiscal decision should meet the organizations needs and limitations. The decisions should be win-win-win. One option should not override another limitation.*

MPulse Purchasing Options:

Conventional or traditional-based software purchase: Purchased outright, this software is installed, administered and supported internally on the customer's own network, or accessed externally in a hosted environment. This model appeals to businesses where ownership is a critical consideration in the event that business directions or climates change, or when the full price of the software is expensed or capitalized

Software-as-a-Service (SaaS) Model: On-demand, Software-as-a-Service (SaaS) deployment options are gaining popularity. Based on a recurring subscription fee, and deployed only as an AHS option (see below), SaaS is typically a pay as you go model with costs aligned with usage. For many businesses, an on-going monthly expense is easier to administer and budget for than a large one-time cost outlay. Subscriptions can be cancelled or changed at any time without losing a large initial investment.

MPulse Deployment Options (AHS, Local Hosting)

Application Hosting Service (AHS): MPulse CMMS software is fourth generation technology developed using Microsoft's .NET framework and its nTier design. As the physical location of any one of the tiers is irrelevant, MPulse offers application hosting as a service to its customers. In this model the customer owns the user rights to the MPulse application, databases(s), any custom configurations which may be created, and all data which is input or created by use of the application. The customer is merely contracting with MPulse to provide this back-end service. The reasons why a customer might want to use Application Hosting Service include:

- There is no software to install
- All user updates to the client, as well as the business service and data service are done automatically and seamlessly
- No additional hardware costs to support the application or data server
- The client's desktop capabilities need only be sufficient to run a browser
- Back-up service is automatic
- No system software to purchase for the server
- No database software to purchase

MPulse Deployment Options (AHS, Local Hosting): cont.

Local Hosting: When the customer owns the rights to use the software, they can host it themselves locally on their own servers and deploy the application within their own intranet. If hosted locally, the customer purchases the software licenses and provides all the IT support required to maintain and support the server that houses the application and the workstations on which it is installed. Installs, bug fixes, updates and/or upgrades to the application are the customer's responsibility. In addition to the upfront software licensing costs, the customer can choose to purchase annual support and maintenance contracts such as an MPulse SMA Program. Local Hosting provides several benefits:

- Control over network security
- Ability to integrate with Windows Authentication
- Control over when updates are deployed
- Independence from the software vendor
- Centralized software application management

Conclusions & Rationale:

The world is becoming more and more social and business people are gravitating towards web based applications that facilitate collaborating and working together online. Web-based applications remove the previous "stand-alone" functionality that existed with installed desktop applications. A group friendly, accessible, customizable CMMS environment results in improved real-time data and ultimately better maintenance management. Collaboration adds value, builds on success and leads to the achievement of focused objectives, which in turn contributes to lower operational cost, reduced energy consumption and less environmental impact.

By fully leveraging the .NET Framework and state of the art web browser technology, web-based applications become easily maintained, powerful, performance enhanced 'clients' that manage as effectively and efficiently as any Client /Server system. True web-based CMMS systems feature seamless updates, easy maintenance, client worksite independence and full integration with physical devices and business based software systems such as accounting, SCADA, ERP, MRP and other enterprise wide applications. With multiple, less intrusive deployment options and purchases plans with lower Total Cost of Ownership (TCO), the decision to add or upgrade to web-based maintenance software makes perfect business, and IT sense.