

# THE COMPUTERWORLD HONORS PROGRAM

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## CASE STUDY



LOCATION:  
*Quantico, Virginia,  
United States*

YEAR:  
*2006*

STATUS:  
*Laureate*

CATEGORY:  
*Government and  
Non-Profit Organizations*

NOMINATING COMPANY:  
*Oracle*

### ORGANIZATION:

United States Marine Corps

### PROJECT NAME:

USMC Manpower Portal

### Summary

Headquarters Marine Corp, Manpower and Reserve Division is charged with supporting Marines and their families worldwide. To that end, we rely extensively on cutting edge technology to make critical information available through the Web. This project highlights the herculean efforts involved with migrating from a legacy inefficient Web environment in place for more than ten years, to a cutting edge portal architecture. It showcases the efficiencies gained through designing, developing and deploying an enterprisewide Manpower Information Portal.

### Introductory Overview

Launched in the early 1990s, the U.S. Marine Corps Manpower Division's first Web site quickly became an indispensable management resource; serving up content and applications to more than 300,000 Active and Reserve Marines, their families, Veterans, Civilian workers and the general public. Created and maintained by the Marine Corps Manpower Information Technology (MIT) Branch, the site grew exponentially over the years as new content and applications were added in an attempt to keep pace with information needs.

By 2003, however, the site was becoming increasingly cumbersome to operate and keep current. With more than 3,000 pages, over time the site became a disparate patchwork of content and applications lacking a single theme. On the whole, the entire Web front was cumbersome, resulting in stale information, little-used applications and a disjointed look and feel. To complicate matters the site was difficult to navigate and far from intuitive for first-time users. The heterogeneous architecture burdened users with multiple logins and other barriers to access and navigation. Advanced site-wide search capabilities were largely absent, for example, as were mechanisms that allowed field personnel to update content independently. In addition, the site lacked a coordinated approach for authorizing and publishing content. Oftentimes this resulted in Web content published to production that failed to meet the standards of an official Marine Corps Website. All of these shortcomings added to the administrative workload, resulting in a frustrating experience for both the user and our IT staff. In the end, our Web environment fell far short of meeting the information needs required of the world's premier fighting force.



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Further complicating matters, as the Department of Defense began to establish service-wide guidance for Web site information security and access, our staff was having difficulty keeping pace. Web applications developed internally were being fielded without a strategic plan. In essence each application was a stand-alone product not integrated in any way with the overall vision of the organization. This led to a frustrating experience for users having to remember multiple logins. From an administrative position, it was extremely difficult to control and manage access permissions across the wide range of applications. In the end, staff productivity was declining and updates to the site were frequently delayed. Meanwhile, the Marine Corp's manpower information needs were steadily expanding and the requirement for an integrated portal became apparent.

In addition to content and application management, one of the key driving factors for portal implementation was the need to track and publish manpower performance metrics and respond to related queries. General Officers and staff personnel needed a more practical and responsive way to view the manpower health of the force. The Manpower Information Technology staff needed a reliable, robust and secure architecture to develop and publish this critical data. More so, we needed a professional front end that would guide users and allow controlled access to a wide range of information.

The MIT Branch responded with a major overhaul of its Web platform. This two-year project made the most of some of the best technologies on the market to include: database, middleware, hardware and backup solutions. The Marine Corps Manpower Information Technology Branch made the strategic decision to stand up a new portal that would serve as our World Wide Web presence and single entry way for supporting applications. The new site was called the Manpower Information Portal.

### Benefits

The Manpower and Reserve Affairs Department expects to realize substantial productivity savings and related benefits over the project life cycle. In total, the project is on course to generate net gains of about \$1,508,000 from a combination of productivity savings in Web development, content management, data analysis and site maintenance. The expected gains translate into a net return on investment of 365 percent.

Estimated gains of \$805,000 in net present value terms will be realized from productivity improvements within our software development section, including reductions in Web-support time and faster development of new applications, online forms and MPIS.

An estimated \$674,000 in staff productivity improvements will come from faster data analysis and query handling, and automated MPI data updates. About \$448,000 in savings are expected from enabling content updates from field personnel and related resource consolidation within the Information Technology Branch.

### The Importance of Technology

Technology has played a key role as the enabler throughout this project. In an effort to address the inefficiencies and improve data access and security, the Manpower Information Technology Branch maximized the use of leading edge technology. Specifically we relied heavily upon Dell Rack Dense servers with Linux OS running Oracle's family of Fusion Middleware. Our storage



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and backup solution consists of EMC's Symmetrix DMX2000S.

The synergy of these combined technologies enabled MIT to field a portal with a unified operating platform based on an integrated database and application server architecture. This key move significantly improved security, availability, stability and overall site management.

The Manpower Information Portal provides a number of IT benefits. Among the most important, it allows users to effectively address content management. Authorized users throughout the division regularly contribute new and updated content, keeping the Web site more current and relevant. Division Content Creators now have the tools and training to update information on demand from anywhere in the world with Web access. This single capability has had a significant affect on our ability to provide high-quality, accurate and easy-to-understand information to our most valued asset – our Marines.

Furthermore, our focus on Web technology and the move to the single-instance portal is generating ongoing productivity savings by giving staff one source access to information and manpower-performance analytics. As a result major data-analysis projects now take about half as much time to complete. Through the use of Oracle Fusion Middleware, developers were able to identify and automate the process of accessing key performance metrics. These metrics are now published in a dashboard-style format known internally as the Manpower Performance Indicators (MPIs). In most cases we are now able to provide Marine Corps-wide manpower information to executives in one or two clicks. In summary, a combination of centralized information storage and automated data feeds helped enable this huge leap in productivity.

Security was a primary focus throughout this project. Built-in security mechanisms now enable MIT to implement enforceable login and password policies, helping the Corps comply with DOD security mandates. This provides for the ability to separate information into two broad categories - the public domain and information deemed for Active duty Marines only. In summary, Web administrators are empowered with much more control over security and access.

### Originality

This project provided the solution to meet the requirements from three general areas:

- Enterprise Web site management
- Business Intelligence and
- Organizational collaboration

The end product has met and exceeded the core requirements from each area in a way that demonstrates a creative approach to satisfying numerous requirements spanning multiple business areas. The entire team understood that the technology being implemented was a critical tool for a wide range of users, and thus needed to add significant value or risk not being adopted.



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### Success

The United States Marine Corps, Manpower Information Technology Branch exceeded all of its goals for its Web platform overhaul. The following is a summary of the ROI achieved:

- Net benefits of \$1.5 million projected
- On track to realize 365 percent net ROI
- Payback expected in 1.3 years
- Achieved compliance with DOD Web-security mandates
- . . 75% less time to develop new manpower metrics

### Difficulty

Some of the key hurdles that were overcome during this portal implementation were:

- Fostering executive buy-in
- Building a team with the required technical skills to support a new environment
- Standing up, testing and deploying a 3-tiered Oracle instance
- Establishing Web publishing policies throughout the organization
- Establishing new roles and responsibilities for all those whose duties required Web content management and publication
- Training new internal users
- Developing a new look and feel with a concise organizational message
- Consolidating, updating and formatting legacy content to reside on the new Web presence
- Revalidating all legacy information requirements
- Working with multiple agencies to coordinate network and security issues associated with “going live”
- Successfully managing change internal to the organization and throughout the Marine Corps.