Charting the Course for the Department of the Navy's IM/IT Transformation

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The Department of the Navy's chief information officer talks about the department's information management/information technology transformation agenda and what the Navy Marine Corps Team is doing to answer the challenge to "deliver tomorrow, today."

As the Department of the Navy (DON) moves forward to meet the challenges of the 21st century, we are embarking on a journey of information management/information technology (IM/IT) transformation that will usher in new ways of deterring conflict, new capabilities for waging war, and new technologies that will lead to major increases in operational effectiveness. This transformation will serve as the foundation for a network-centric environment and knowledge dominance, and provide next-generation capabilities to the naval warfighting team.

Key to developing an effective, executable IM/IT transformation strategy is having the right leadership team. In recent months, we have been engaged in a significant effort to restructure IM/IT governance across the DON. This restructuring has helped to strengthen, align, and integrate our IM/IT efforts across the Navy and Marine Corps and to ensure department-wide alignment of IM/IT efforts with warfighter priorities.

A key element of the restructuring was the designation of the Director for Space, Information Warfare, Command and Control Rear Adm. Thomas E. Zelibor to be dual-hatted as the DON deputy chief information officer (Navy); and the for Command, Control, Communications, and Computers Brig. Gen. John R. Thomas to be dual-hatted as the DON deputy chief information officer (Marine Corps). The formalization of what had previously been ad-hoc relationships has significantly enhanced and better aligned the way we manage IM/IT across the Navy Marine Corps Team. It also ensures that we have an integrated vision and strategy and aligned execution.

The DON IM/IT leadership team has recently published the DON IM/IT Strategic Plan for 2004-2005. It is also actively engaged in developing the DON IM/IT Enterprise Implementation Plan, which will link vision and strategy to programmatic and budgeting guidance and serve as the basis for approving and funding future IM/IT investments. Our strate-

gic plan is available at <www.doncio. navy.mil>; I encourage you to read it for more detail and to see some of the success stories that demonstrate progress toward our goals.

The remainder of this article will outline the DON's IM/IT transformation agenda. It is comprised of a number of key initiatives woven together to deliver three IM/IT enterprise capabilities: a blue-print for modernization, knowledge avail-

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ability and dominance, and effective resource management. All of these rest on the supporting foundations of Full Dimensional Protection and an exceptional IM/IT work force.

A Blueprint for Modernization

The capability to deliver a standards-based enterprise architecture and successful network integration strategy are essential elements of the DON IM/IT blueprint for modernization. Network-centric operations and warfare require that we take an enterprise approach toward management of our information assets. This reality drove the decision to pursue the innovative outsourcing strategy that is the Navy Marine Corps Intranet (NMCI).

The NMCI provides the full range of

state-of-the-art network-based information services through a performance-based contract using state-of-the-market equipment and leading industry service providers. It replaces numerous independent and disparate networks ashore with a single secure network and is a vital part of the Department of Defense (DoD) Global Information Grid, interfacing with the Navy afloat network and the Marine Corps tactical data network to enhance the flow of critical information to forward-deployed forces.

The NMCI significantly improves the security of our IT enterprise; enables greater sharing of knowledge and improved interoperability; and gives the Navy and Marine Corps secure, universal access to integrated voice, video, and data communications. The NMCI is a major first step in the DON's strategy to develop and maintain a single, seamless, secure network – our platform for network-centric warfare and knowledge dominance.

The NMCI is the foundation for much of the IM/IT transformation that is going on throughout the DON. It provided the opportunity for the DON to gain visibility of all its shore-based information assets: hardware, software, and data. The NMCI became a forcing function to standardize across the Navy and Marine Corps and reduce the number of legacy applications in use. We have made great progress during the last year in legacy application rationalization. From our initial count of 100,000 applications, we are now down to approximately 5,000 and are on our way to a target goal of about 2,000 applications. Additionally, perennial challenges of realtime collaboration, enterprise-wide applications, and authoritative data sources can be met through the NMCI.

Knowledge Dominance

The two core themes of the Navy Marine Corps IT team are network-centric operations and knowledge dominance for the Naval warfighting team. Knowledge dominance is essential – having access to the right information at the right time from

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authoritative data sources to allow quicker decision making and collaboration. As we achieve a seamless enterprise network structure, we are simultaneously transforming the way information is shared to truly achieve knowledge dominance. Commands across the Navy Marine Corps team are leveraging the tenets of knowledge management and using Web service solutions to create virtual collaboration environments.

Operational forces recognize the power of collaboration and knowledge sharing and have become champions for knowledge management. A highly effective knowledge-management pilot program is ongoing at Commander, Submarine Group 10 in Kings Bay, Ga. It involves the Trident submarine blue and gold crews; as a crew comes off deployment to shore, they can still maintain their proficiencies and share and collaborate during that off-cycle time.

At Commander, Naval Reserve Force, there is a project to reengineer the entire claimancy using knowledge management as the foundation for that transformation. Recognizing the power of knowledge management throughout the Navy Marine Corps team, Commander, Network Warfare Command Vice Adm. Dick Mayo is leading a flag officer level knowledgemanagement steering group to make sure we continue to embrace and deploy knowledge management solutions for the warfighter.

The Navy Marine Corps Portal (NMCP) will provide an integrated, collaborative environment and personalized, role-tailored access of information in real time. This single integrated portal structure will allow our organizations to focus on content delivery, and avoid the costs of individually developing portal features and functions. Authoritative data sources and enterprise-wide applications will be accessed through the portal and secured via Public Key Infrastructure (PKI) facilitated by the Common Access Card (CAC) and e-authentication. The NMCP will reduce application costs and improve information security, providing our Sailors, Marines, and civilians with access to the intellectual capital of the entire Navy Marine Corps team.

Effective Resource Management

The IT investment and expenditure decisions made by Navy and Marine Corps commands must be aligned with our strategic goals, and must improve combat capability, warfighting readiness, and mis-

sion performance. To this end, we are engaged in developing a capital planning process that validates IM/IT requirements as part of the Program Objectives Memorandum/budget process, and an Enterprise Implementation Plan that links our long-term vision and strategy to programmatic and budget guidance.

Our Capital Planning Integrated Process Team is working to combine classical capital planning methods with elements of the Marine Corps' Information Technology Steering Committee process that answers the needs of the entire department. Though producing the Enterprise Implementation Plan will be a complex task, we have taken an important step in the right direction. Our "Information Technology Policy Guidance for Fiscal Year 2004 Expenditures" memo-

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randum to Navy Echelon II and Marine Corps Major Commands is an executive summary of national, DoD, and DON policies in place to promote secure, interoperable, and standards-based IT solutions. It is referenced in the appropriate program authorization documents, requiring comptrollers to ensure compliance before approving disbursements for IT

Full Dimensional Protection

The 21st century presents new challenges for continued maritime dominance and national security. We have crafted an approach we call full dimensional protection. Joint Vision 2020 states that *full dimensional protection* is achieved "through the tailored selection and application of multi-layered active and passive measures." For the DON, that protection takes three forms: (1) protecting knowledge pathways through information assurance and defense in depth, (2) protecting our centers of knowledge through critical infrastructure protection, and (3) protecting our knowledge workers through

efforts to protect individual privacy.

Information assurance is required in the DON to protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. We have adopted the defense-in-depth strategy to mitigate the risk associated with a single point of failure.

The Common Access Card (CAC) is the cyber and physical identification card for all DoD active duty military, reserve military, civilian, and eligible contractor personnel. More than 3 million CACs have been distributed to DoD personnel (1.1 million within DON). The CAC, with its DoD PKI credentials, is the cornerstone for improving the department's information assurance posture by facilitating secure access to physical and cyberspaces.

The DON Critical Infrastructure Protection program ensures protection of both cyber and physical mission-essential infrastructures, employing the Naval Integrated Vulnerability Assessment process to identify single points of failure of critical assets. Local, state, and DoD leaders have enthusiastically endorsed this process. We have also developed a Consequence Management Planning Guide to assist military commanders in the development of continuity of operations plans, and are working with state and local governments to share lessons learned.

Privacy is the third leg of our Full Dimensional Protection program. Now, more than ever, striking the delicate balance between personal privacy and national security is a challenge faced by the entire nation. The DON recognizes this fact and is taking steps to ensure privacy protection through tools and policies to aid in the protection of personal information in DON systems.

IM/IT Work Force: The Foundation for Future Success

Foundational to the DON's transformation is our work force. The DON's current successes and future ability to transform the IM/IT enterprise are directly attributable to the outstanding men and women of our military and civilian service.

We have an extremely intelligent and innovative work force, and our IT professionals are up to the challenges of the 21st century digital revolution. However, in our rapidly changing world, the skill sets and knowledge required of our IM/IT work force are also changing rapidly. For this reason, we have provided

tools to help our work force assess their current and future needs and develop competencies related to those needs.

The entire federal government has now adopted these career-planning tools. Our leveraging of such tools and continuous learning programs will help us develop and retain the skilled work force needed to continue our IM/IT transformation.

Leading Change

This is a time of great change – viewed with consternation by some, but fortunately embraced by many more as a time of great opportunity. I think the measure of an effective chief information officer is the ability to lead change. You have to understand technology, but technology is only part of the answer. I spend a far greater part of my day working the cultural change issues that go along with making an organization transform.

Each of us must be a change leader. Each of us must be willing to do our part to leverage technology as a part of a larger effort to reinvent and reinvigorate our warfighting processes. At the recent Navy Information Professional Community Summit, the chief of Naval Operations asked a group of IT professionals "to deliver tomorrow, today." The combination of a need to understand and embrace the future, but to deliver results now, is right on target. Choosing to change means accepting risks. Choosing not to change, in today's world, risks irrelevancy. I am honored to be a part of an outstanding Navy and Marine Corps team that has chosen to champion change.

About the Author



David M. Wennergren is Department of the Navy chief information officer (DON CIO) reporting directly to the secretary of the Navy.

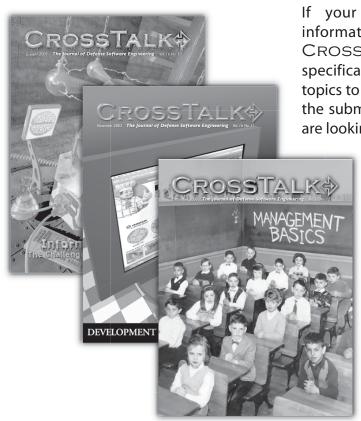
He provides top-level advocacy in the development and use of information management/information technology (IM/IT) and creation of a unified IM/IT vision for the Navy-Marine Corps team. He is also the chair of the Department of Defense Smart Card Senior Coordinating Group, where he is responsible for the deployment of smart card technology, including the Common Access Card. He has received both the DON Superior and Meritorious Civilian

Service Awards, and the Office of the Secretary of Defense Exceptional Civilian Service Award. Wennergren has a bachelor's of arts degree in communications/public relations from Mansfield State University. He was a recipient of a Secretary of the Navy Civilian Fellowship in Financial Management, culminating in a master's degree in public sector financial management from the University of Maryland's School of Public Affairs.

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