

Getting from NMCI to NGEN

Early Transition Activities will ensure the seamless follow-on of the Next Generation Enterprise Network

By Capt. Tim Holland

The year 2010 marks the end and the beginning of an era in naval information technology. After 10 years of the Navy Marine Corps Intranet, the largest intranet in the world and the single largest defense IT program, the Department of the Navy has started its evolution toward the Next Generation Enterprise Network, the follow-on to NMCI. In fact, NGEN is preparing for the transition through a series of initiatives called Early Transition Activities. These ETAs are paving the way for the DON's vision of the Naval Networking Environment in 2016.

In 2009, the DON began to develop ETAs to prepare for a successful migration of services from a contractor-owned, contractor-operated model to one that gives the government increased command and control (C2). The ETAs are made up of several initiatives that will establish processes and tools used to lay the groundwork for a seamless transition between NMCI and NGEN. The ETAs will mitigate the risk for government and industry as the IT platform's operational model shifts to becoming government-owned.

The NGEN Program Office, or PMW 210, is part of the program portfolio of the Naval Program Executive Office for Enterprise Information Systems (PEO EIS). In August 2009, PEO EIS received approval for all ETA acquisition decisions and programmatic documents. PMW 210 is also authorized to manage the ETAs as risk reduction/risk mitigation efforts. As a result of this approval, the NGEN Program Office and PEO EIS regularly provide status updates on the ETAs to the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN RDA), as well as conducting summits with NGEN stakeholders to keep them informed.

The ETAs are substantial in size and scope. Their scope encompasses people, processes and tool enhancements for the Navy and Marine Corps. Descriptions of the funded ETAs as of press time follow.

ITSM Process Development

To achieve operational control across a large IT enterprise comprised of multiple service providers, the government



Early Transition Activities will prepare the network for a successful migration of services from NMCI through the Continuity of Services Contract (CoSC) period to the implementation of NGEN.

must enhance insights in IT Service Management. ITSM is a discipline for managing information technology systems centered on the customer's perspective. NGEN will leverage the Information Technology Infrastructure Library (ITIL V3), a framework of industry best practices for ITSM. Some inherent benefits for organizations that have chosen to adopt ITIL for service management include lower costs and improved services.

To develop the ITIL competency, the NGEN Program Office, in conjunction with Naval Network Warfare Command (NETWARCOM), will use a phased approach to deploy customized and integrated ITSM processes based on the ITIL V3 framework. The NGEN Program Office and NETWARCOM have begun the initial process development work for knowledge management; service asset and configuration management; information security management; incident management; event management; and portfolio management.

The NGEN Program Office will lead NGEN stakeholders through process design efforts to cultivate standardized processes, procedures, roles, performance management plans and tools to support future NGEN services.

This ETA will also develop standardized service management procedures that will ensure government oversight, IT conformance, standardization and integration of ITSM processes across all segments of the NGEN environment. To effectively

manage the network, the ETA will lay the groundwork for the creation of training specifications for NGEN and contractor network management resources.

Enterprise Tools Strategy

Like the ITSM Process ETA, the Enterprise Tools ETA is part of the proposed NGEN ITSM/ITIL framework and is responsible for the strategy and implementation/integration of technical solutions. Since NGEN is moving toward a consolidated management environment to reduce costs and increase the level of services it provides to customers, ITSM tools for automation, monitoring and management are a mandatory piece to the enterprise puzzle.

This ETA will analyze current tools, perform industry research, develop design requirements and interfaces, and recommend vendor tool integration specifications deemed by the government as necessary to support and enforce enterprise standards for its ITSM processes. This ETA will reduce NGEN tool acquisition risk by analyzing government and commercial off-the-shelf tools, and recommend tools that tightly integrate all ITSM processes, while simultaneously reducing customized tools and overall costs.

The Enterprise Tools ETA strategy is also expected to increase the efficiency of ITSM processes and facilitate collaboration among multiple stakeholders. By integrating state-of-the-art processes and standard workflow tasks, NGEN will also

standardize enterprise management activities. Ultimately, the successful transition from NMCI to NGEN will incorporate ITIL V3 training for personnel as a necessary part of the implementation process. Support will be furnished by qualified ITIL V3 staff.

Global NetOps C2 Workforce Establishment

Achieving NetOps effects in the NGEN environment implies an ability to conduct seamless, synchronized and integrated visibility, management, and command and control of assets and/or resources within NGEN management domains. The focus of this ETA is to provide capability to achieve the NetOps essential tasks and their desired effects in relation to shared situational awareness, unified C2, network assurance, enterprise management, content management, assured system and network availability, assured information delivery and assured information protection. To achieve these effects, the NetOps ETA will develop the personnel, processes and tools to support NGEN NetOps requirements and capabilities, including:

- Visibility into the health and status of NGEN operations and alignment of operational and contractual authorities;
- Alignment of resources with military organizations and missions;
- Focus on network defense activities;
- Support the full range of continuity of operations activities;
- Ability to associate performance issues with a specific NGEN segment; and
- Development of tool requirements and processes to exercise C2 over NGEN resources.

Comprehensive Facilities Inventory

To properly inform the NGEN request for information/request for proposal (RFI/RFP) activities, the DON will create a comprehensive asset database of NMCI's core infrastructure. The Comprehensive Facilities Inventory ETA will capture the information necessary to establish an Enterprise Infrastructure Asset baseline of the current NMCI infrastructure. This will facilitate transition from the vendor-controlled environment to the government-controlled NGEN environment. To establish this baseline, the government will assess the current state of asset configuration information and develop a strategy for collecting and analyzing the data.

CTR Workforce Reconstitution

Currently, DON contract technical representatives (CTR) perform service-related functions, such as ordering, invoicing and contract execution for users on the NMCI contract, as a collateral duty. The CTR Workforce Reconstitution ETA will perform the work analysis and manpower development documentation needed to align the CTR workforce with NGEN acquisition and mission strategies. The ETA will define NGEN CTR roles and responsibilities, as well as training requirements, to meet NGEN performance expectations. By leveraging a unified and coordinated approach to a reconstituted CTR workforce, the DON will improve its ability to realize reduced costs through blended training, as well as ensure a seamless CTR transition from NMCI to NGEN.

DISN Core Extension

This ETA will bring wide area network (WAN) connectivity from the Defense Information Systems Network (DISN) to five

major DON nodes in the Atlantic and Pacific areas of responsibility. One of the issues with the current DISN subscription service structure is that it does not provide enough sites with sufficient bandwidth. Enhanced connectivity provided by this ETA will improve performance and maximize bandwidth usage by utilizing a higher maximum transition unit and through rate shaping, or filtered bandwidth. This should resolve DISN subscription services issues with the Defense Information Systems Agency (DISA), the Department of Defense's primary communications system.

By achieving efficiencies in the DISN's subscription services and minimizing NGEN's circuit costs, the ETA will improve quality of service for warfighters and reduce costs for the DON.

Marine Corps Upgrade WAN and Enterprise Services

The Wide Area Network and Enterprise Services ETA consists of various IT assets that will directly replace and refresh existing Marine Corps Enterprise Network (MCEN) infrastructure items for approximately 30,000 users.

Marine Corps Installation East Pilot

The Marine Corps Installation East Pilot will be conducted at Headquarters Marine Corps Installations East, Marine Corps Base Camp Lejeune, N.C. Transition activities will include assumption of operational control of the base area network, local area network, migration of end-users to Marine Corps Worldwide Active Directory, various management and sustainment processes, and transition of user workstations for approximately 1,200 users. This ETA will serve as the model for the entire Marine Corps NGEN transition strategy.

How We Get There

Each ETA has its own program life cycle and is managed within an integrated product team (IPT) in the NGEN Program Office. Some of the ETAs, such as the Comprehensive Facilities Inventory, are nearing completion in their life cycles whereas other ETAs, such as the ITSM/ITIL Processes and Tools, will continue until NGEN reaches its full operating capability.

PMW 210 continues to meet with stakeholders as it staffs and executes the ETAs in coordination with PEO EIS and ASN RDA oversight. The NGEN Program Office is also reviewing ETA deliverables with the IPTs responsible for each activity and aligning activities with the services that will be provided under the new NGEN operating model.

This is truly an exciting time to be a part of naval IT. As we transition from a model that made great strides in unifying our department under one IT platform, we continue the work that was begun 10 years ago in maximizing efficiencies and reducing legacy systems. As one of the program offices of PEO EIS, NGEN embraces its motto, "Enabling the Enterprise."

I am very proud of the work being conducted by the IPTs and the early progress made by the ETAs to successfully transition to NGEN and to achieve the DON's vision for the Naval Networking Environment ~ 2016. **CHIPS**

Capt. Timothy Holland is the PMW 210 program manager. He is a graduate of the U. S. Naval Academy with a bachelor's degree in engineering and a Master of Science degree from the Naval Postgraduate School.