



DEPARTMENT OF THE NAVY
TELECOMMUNICATIONS OPTIMIZATION 2009
Department of the Navy Chief Information Officer



Reforming Telecommunications

The Department of the Navy (DON) is in the process of reforming its telecommunications environment. The guiding precept of this initiative is developing and implementing an enterprise management framework that will substantially improve the manner in which telecommunications are acquired, operated, and accounted for. The new framework will replace the current piecemeal approach with one that adopts enterprise buying strategies and delivers visibility into the assets and services being procured. The end result will be an optimized telecommunications environment supported through automated tools that facilitate delivering the right mix of services at the best cost.

1.0 OVERVIEW

This document describes the actions the Department of the Navy (DON) is taking throughout 2009 in the ongoing work to reform its telecommunications environment. It replaces the *DON Telecommunications Management and Action Plan (MAP)* which, since its release in 2004, has served as the Department's primary guide for telecommunications reform.

Reform efforts are focused on building an optimized telecommunications environment supporting mission accomplishment delivered under an enterprise management framework. Initial milestones include an updated governance approach, consolidated contracting, and expanded use of automated tools. In addition to providing cost savings and other direct benefits, these steps will provide the foundation to enable the successful realization of follow-on optimization opportunities.

2.0 AUTHORITY

The telecommunications reform efforts are being conducted under the aegis of the DON Chief Information Officer (DON CIO) in accordance with the Secretary of the Navy (SECNAV) directive of October 2004 regarding the development of an improved telecommunications environment. Additional statutory authority, as recently summarized in the Office of Management and

Budget (OMB) Memorandum titled *Information Technology Management Structure and Governance Framework* of October 21, 2008, confers upon federal agency CIOs overall responsibility for the governance, management, and delivery of all information technology-based programs within their Departments.

3.0 BACKGROUND

Outside of the Navy Marine Corps Intranet (NMCI) infrastructure, the acquisition and management of telecommunications within the DON remains decentralized and with an insufficient level of support provided by the automated tools necessary to adequately manage such a complex environment.

This state of affairs has been documented in a number of studies conducted over the past five years by both the DON and outside parties including:

- Control Over Wireless Devices at Selected Commander, Navy Installations Command and Naval Facilities Engineering Command Activities, Naval Audit Service Report N2009-0014, December 2008.
- Telecommunication Cost Recovery Audit Executive Close-Out Report, October 2008.
- Navy Voice Management Study, Recommended Navy Voice Organizational Structure & Processes, Final, September

ber 28, 2005.

- Navy Voice Management Study Final Report, September, 2005.
- Vendor Payments: Inadequate Management Oversight Hampers the Navy's Ability to Effectively Manage Its Telecommunication Program, Government Accountability Office Report 04-671, June 2004.
- Department of the Navy Telecommunications Management and Action Plan, October 2004.
- Navy Voice Enterprise Strategy Analysis, Final, October 29, 2004.
- Navy Enterprise Voice Strategic Plan, FY05 – FY09, Final, November 15, 2004.
- Navy Voice BCA, Summary of Findings, September 4, 2003.
- Navy Voice Current Cost Analysis (CCA), Final, 21 January 2003, Ver. 2

The ramifications of the status quo are both clear and substantial. The current environment does not provide sufficient visibility into DON telecommunications assets and services, leads to a lack of accountability, prevents the DON from leveraging its substantial buying power, and precludes any attempt to deliver an optimized environment delivering net-centricity.

There is a high degree of consistency in the above documents regarding both the existing shortcomings as well as the recommended actions to ameliorate them. These

recommendations are also highly consistent with industry best practices.

Briefly stated, the DON must deliver an optimized telecommunications environment through the adoption of an enterprise telecommunications management framework that provides effective governance and management mechanisms.

4.0 OPTIMIZATION

The DON reform efforts moving forward are focused on optimizing the telecommunications environment. Optimization is geared solely towards improving the current and future methods that the DON utilizes in acquiring and managing its telecommunications environment. An optimized environment will provide the proper mix of services to support mission accomplishment while better leveraging the DON's buying power.

Optimization is an iterative process, with progress occurring sequentially and building on previous efforts. Annual program updates will be released, documenting achievements and targeted actions as they are developed.

4.1. Primary Optimization Drivers

While there are a number of discrete components in the telecom supply chain, three are of particular importance: **Contracts, Inventory, and Invoices**. With control and insight into these areas, the DON will be able

level of visibility and actionable data on those services that are procured on behalf of the DON by intermediaries.

As a result, the scope of these reform efforts in the near term will be limited to those services over which the DON has complete end-to-end control — from contracting to

Various optimization techniques may be used to target each of these areas and deliver both cost savings and cost avoidance. For example, leveraging the DON's buying power through consolidated acquisitions will lead to reductions in connectivity and equipment costs. Consolidating operations through regionalization would lead to a reduction in personnel costs to support the environment.

Other practices, such as the use of automated tools, bring in additional savings across the entire spectrum of telecommunications assets and services; industry cites savings in the range of 12 to 30 percent or more, for organizations that implement a commercial, off-the shelf (COTS) Telecommunications

Expense Management (TEM) system. The currently available TEM solutions for cellular services available through the GSA have cost savings of 20 percent as the minimal acceptable level of quality.

Navy Telecom Cost Breakdown

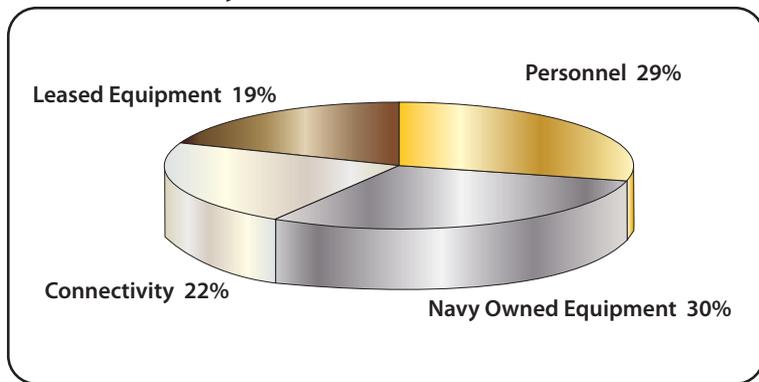


Figure 3: Navy Telecommunications Cost Breakdown
Source: Navy Voice Current Cost Analysis (CCA), Final, 21 January 2003 Version 2

invoice validation. This will provide the line-of-sight necessary to identify areas ripe for improvement. NMCI-based assets and services are also excluded as they are currently managed through an enterprise construct.

4.3 Cost Savings Potential

One of the primary reasons for optimizing the environment is to save costs. As seen in Figure 3 above, the major cost drivers in the current environment for the U.S. Navy are, in order; purchased equipment, personnel, connectivity, and leased equipment.

4.4 Future Benefit - VoIP Transition

The telecommunications industry is increasingly moving to providing all services through packet-based services. Consistent with this trend, the DoD and DON both envision the day when all voice services are provided via Voice over Internet Protocol (VoIP). Indeed, some VoIP implementations

are already in place.

The transition process for any large enterprise from analog-based telephony to VoIP carries risk from a variety of sources. As telephony remains a critical component of mission accomplishment for our Sailors and Marines, this capability must not be compromised. Thus, to mitigate the risk and the costs involved, both the Navy and Marine Corps are taking a measured approach to VoIP migration.

Optimizing the voice environment now will facilitate the eventual transition to enterprise-wide VoIP. Risks will be minimized by developing a comprehensive baseline inventory and requirements will be better documented and understood.

5.0 ENTERPRISE TELECOMMUNICATIONS MANAGEMENT FRAMEWORK

Moving the DON from the current environment to an optimized one will require a strategic approach that allows the DON to assess and prioritize the actions needed to move towards the future state. The enterprise telecommunications management framework is the vehicle through which

Telecommunications Management Matrix

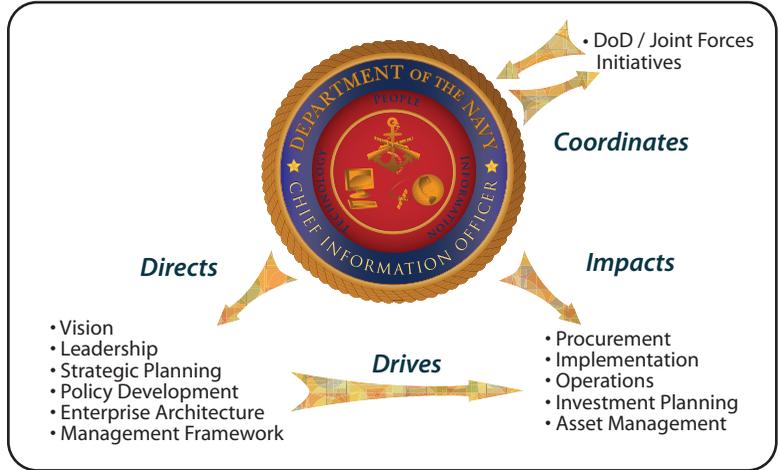


Figure 4: Department of the Navy Telecommunications Management Matrix

strategy is developed and optimization is delivered.

5.1 Management Framework

There is broad consensus within industry regarding the hallmarks of an effective telecommunications management framework. Briefly stated, the consensus is that effective management of telecom must be conducted under the umbrella of enterprise-wide governance providing end-to-end control and visibility throughout the entire supply chain of contracting, provisioning, operating, validating, and paying for these services. Due to the complexity of the environment and the sheer volume of transactions involved, automated tools, such as a TEM system, are required to effectively manage the process.

Implementing an enterprise approach deliv-

ers significant benefits. Chief among these is the ability to aggregate requirements and acquisitions to leverage the DON's buying power. Further, as telecom is increasingly critical to warfighter success, an enterprise approach is required to assure management that these services are properly aligned and are supporting the mission. Lastly, as telecommunications entail a significant level of monetary investment, an enterprise approach provides the line-of-sight financial visibility and control that these outlays of the public's funds demand.

5.2 DON Management Considerations

For the DON, all IT assets and programs, including telecommunications, are managed in a matrixed environment. Department of Defense, OMB, and legislative directives must be addressed and the DON implementation conducted in a manner that aligns with these overarching directives.

Within the DON itself various officials and organizations are imbued with IT leadership responsibilities. Key officials include DON CIO, ASN (RD&A), OPNAV (N6), and HQMC (C4). Major oversight bodies include the Information Executive Committee (DON-wide scope), the Information Technology Management Council (Navy) and the Information Technology Steering Group (Marine Corps).

Any new processes or organizations required to provide telecommunications man-

agement structure will need to leverage the existing management structure.

6.0 2009 ROADMAP COMPONENTS

The studies referenced in Section 3 cite scores of deficiencies in the current environment – one study alone documented 172. Thus, there are many opportunities to implement the optimization process. It is critical, however, that the DON move forward in a strategic manner to lay the foundation that will best enable follow-on optimization efforts.

The following three areas constitute the priorities for 2009:

- Governance
- Strategic Sourcing
- Automated Tools

By focusing on these areas the DON will be best positioned to realize near-term progress as well as build a foundation for follow-on optimization efforts.

6.1 Governance

Objective: Define and Implement a DON Enterprise Telecommunications Governance Structure and Processes.

Implementing an enterprise-wide telecommunications management framework requires, first and foremost, an effective governance structure. This governance structure

comprises the organizations, their roles and responsibilities, and the processes that the enterprise utilizes to support decision-making, develop and implement strategies, guide activities, and enforce compliance. Governance in a large organization such as the DON may consist of different tiers, but operating in synch and with clear end-to-end visibility and alignment.

An enterprise governance approach fosters consistent policies, processes, and practices throughout the organization. This approach provides a predictable environment and eases training for those charged with implementing and managing the various components delivering telecommunications services.

6.1.1 Policy Environment

A critical piece of enterprise governance is the policy environment. Departmental telecommunications policies define the overarching environment within which the various components operate. These policies must reflect the Department's vision and support the enterprise in its ongoing efforts to achieve that vision. The suite of DON telecommunications policies must be comprehensive and attuned to current requirements in order to be effective as well as ensure compliance.

Policies regarding an area as dynamic as telecommunications must be subject to constant review. Existing policies need to be

updated or replaced as new technologies and services are introduced. New policies may need to be developed in response to other changes in the landscape. A preliminary analysis of the relevant DoD and DON policies showed that many are obsolete or need significant updating to be relevant to today's technology environment. For example, a number of policies are more than 20 years old; a time span that covers several telecommunications generations. Thus, the policy environment will need be updated as part of the governance process.

6.1.2 Draft SECNAV Instruction 2060.x

SECNAV Instruction 2060.x was drafted to define the roles and responsibilities for implementing an enterprise management framework. As the enterprise management framework continues to mature, the draft instruction will be updated and will define the manner in which the framework is executed within the DON.

6.2 Strategic Sourcing

Objective: Develop a Telecommunications Strategic Sourcing Strategy that Leverages DON Buying Power through Consolidated Contracts.

Contracts represent a critical opportunity as the initial entry point in the supply chain and a primary optimization driver. By developing the enterprise commodity strategy for telecommunications contracting, cost savings will be realized. Progress in this area will facilitate follow-on improvements

in inventory and invoice processing, which will enable the DON to better manage all three primary optimization drivers.

Acquiring telecommunications services through an enterprise approach allows the DON to leverage its buying power and thereby receive the best rates. Further, consolidating contract vehicles into as few as practical, leads to a more manageable environment and one in which the providers may be more easily monitored and held accountable.

Contract data comprises a key data set of any future Telecommunications Expense Management solution and provides the foundation for much of the validation and analytical processes. In addition to tracking all contracts in detail, TEM contract modules assist in maintaining an optimal contract environment as they prevent unnecessary contract overlaps, identify unfavorable contracts for review and potential cancellation, and protect against the automatic re-

newal of contracts without review, among other features.

6.3. Automated Tools

Objective: Expand the Use of Automated Tools to Support the Management of the Wired and Cellular Environments.

Due to the complexity and volume of transactions that typify the DON's telecommunications environment, the use of automated tools is absolutely required for proper management. While some tools are in limited use, they are not uniformly implemented across the DON and they do not provide the end-to-end visibility, control, and business intelligence required to support decision making and deliver an optimized environment.

A number of vendors offer TEM solutions that automate many of the functions inherent in managing telecommunications assets and services. Most TEM providers offer modular solutions that together cover the entire telecommunications life cycle. However, existing DoD and DON applications that meet some of these requirements, are already in place. The DON must then identify the modules and interfaces to existing systems that are necessary to support these optimization efforts. Given the significant differences in the wired and cellular environments – both within industry and how the DON manages them – they will be assessed separately and result in different solutions.



6.3.1 Wired

The DON does utilize, in limited fashion, some level of automated tools to manage its wired telecommunications environment. These will be evaluated for expansion or replacement. In some areas, no automated tools exist and the relevant commercially available TEM modules will be examined for adoption.

6.3.2 Cellular

The wireless environment has been significantly improved upon over the past four years through the implementation of NMCI and Fleet Industrial and Supply Center-San Diego enterprise contracts which allowed the DON to begin to leverage its buying power. Follow-on efforts to implement new contract plan options and minimize zero-use lines brought more cost savings to bear in the area of cellular expenses.

While these actions have substantially improved the DON's cellular environment in a number of ways, the Naval Audit Service has recently recommended additional practices that would address some lingering shortcomings in this arena.

Additionally, a recent analysis showed that significant short-term cost savings could be garnered by optimizing

the use of the available plan options. One indicator of this is the extremely low overage charges the DON incurs – less than one percent on average. Because the cost per minute for overages is relatively high, it is a common misperception that low overage charges represent effective cost control. In fact, the opposite is often the case, and indeed the DON figure indicates that some commands are paying twice as much per minute as they expected.

This same analysis showed that some commands were grossly underutilizing their pooled minutes – as low as 46 percent in one case, 50 percent in another. As shown in Figure 5, below, with such a surfeit of unused minutes there would be no overage charges – but the funds expended end up being twice as much as necessary.

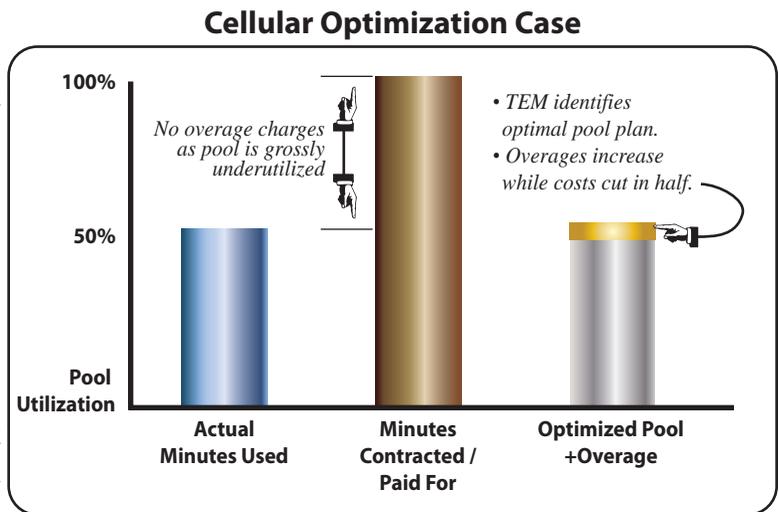


Figure 5: Cellular Optimization



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