Chapter XVI

Implementing a Wide-Area Network at a Naval Air Station:

A Stakeholder Analysis[1]

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EXECUTIVE SUMMARY

The Naval Air Systems Team is an organization wishing to capitalize on the benefits derived from connecting geographic stakeholders using wide-area network technologies. The introduction of common e-mail, file transfer, and directory services among these organizations is envisioned as a significant enabler to improve the quality of their aggregate product. At the same time this organization has decided to transform itself from a traditional functionally hierarchic organization to a competency based organization. The new model introduces a modified matrix organization consisting of integrated program teams at 22 geographically separate sites in the United States. This case study illustrates the use of a non-traditional approach to determine the requirements for the Naval Air Systems Team Wide-Area Network (NAVWAN). It is considered to be non-traditional because the case data enable the use of stakeholder analysis and SWOT (strengths, weaknesses, opportunities, threats) assessments to determine the requirements instead of asking functional proponents about function and data requirements. This is an action planning case. The case objective is to apply these methodologies and an understanding of organizational change to developing an action plan recommendation for implementation of a wide-area network.

BACKGROUND

The Naval Air Systems Team (NAST) is the component of the United States Department of Defense that is responsible for delivering aircraft and related systems to be operated, based, and supported at sea. To that end, this organization employs 42,000 civilians and 4,500 military personnel[2] at commands and bases throughout the country. Examples of products provided by this organization include air anti–submarine warfare mission systems; aircraft and related systems for aircraft carriers; maritime and air launched and strike weapons systems; and training in the operation and maintenance of these systems.

In April 1992, NAST, then headed by Vice Admiral (VADM) William C. Bowes, initiated a significant organizational restructuring as part of a large-scale change effort to enhance organizational effectiveness. The structure changed from that of a traditional functional hierarchy to a Competency Aligned Organization (CAO) which is a modified matrix organization that established dedicated Integrated Program Teams located at 22 different sites across the country. These teams are comprised of personnel from relevant functional competencies and coordinate activities that often span multiple command locations. A wide-area network (WAN) was identified as a critical infrastructure requirement for the success of these teams.

VADM Bowes became the champion for the implementation of a Naval Air System Team Wide-Area Network (NAVWAN) system. He viewed this infrastructure upgrade as critical to the success of the Competency Aligned Organization. He established a Demonstration-Validation team to perform the systems analysis, design, and implementation of the NAVWAN. This team identified several prototype implementation sites to be used to both validate the functionality of the NAVWAN and provide data to support a full system implementation.

As part of this effort, the Validation Team sponsored a research effort to conduct a stakeholder analysis at one of the prototype implementation sites. This analysis was designed as an alternative to the traditional design phase for a new information system implementation. The Department of the Navy has traditionally used a waterfall method to design and implement new information system technologies. This method begins with a requirements analysis and is followed by design, coding, testing, and maintenance. The focus of the case study presented in this chapter is on the requirements analysis phase. In the requirements analysis phase, the traditional waterfall method would focus on identifying specific types of data the system would need to be able to manipulate and on the business functions being performed.

The data gathered and presented in this case are intended to provide an alternative methodology for requirements analysis and implementation planning. These data were derived from interviews with representatives of each of the critical stakeholders at this implementation site. This case changes the traditional requirements analysis focus from that of data and function for the waterfall method to that of broader stakeholder issues in the application being developed.

This is an action planning case. The data presented provide information that can be used to develop a set of recommendations to be presented to the Validation Team and ultimately to VADM Bowes regarding the NAVWAN, including: planning strategies; user requirements; implementation strategies and schedules; resource allocation; training strategies and schedules; and maintenance strategies. The task of the reader, at the

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