# Chapter 15
# Net-Centric Assessment and Interoperability Testing

## CHAPTER CONTENT

As you explore Chapter 15, it will cover the following topics:

- Assessing Net-Centric Transition
- Net-Centric Data Assessment
- Net-Centric Services Assessment
- Net-Centric Information Assurance Assessment
- Communications and Transport Assessment
- Interoperability Testing for Net-Centric Development
- CASE STUDY: University of New Hampshire Inter Operability Laboratory (IOL)

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## CHAPTER FOCUS

This section provides you with the ability to assess net-centric and interoperability principles within organizations. This chapter provides a set of checklists that have been placed in tables for organizations to figure out how to evaluate net-centric data assessment, net-centric services assessment, information assurance assessment, and communications and transport assessment. It then provides an understanding of interoperability testing to promote net-centric development, which involves stages of testing and the use of SOA-based services. We end with a case study of the University of New Hampshire Interoperability Laboratory that has been a fixture in providing testing support for IPv6 and network testing.

## ASSESSING NET-CENTRIC TRANSITION

In this chapter, we now discuss the ability to assess, test, and evaluate a net-centric transition process for systems and organizations. These organizations may grow to include any type of entity, which includes federal government organizations, state and local government, large defense-related corporations, small business organizations, and universities and research consortia.

The four areas of assessing net-centric alignment include the following:

- Data Assessment
- Services Assessment
- Information Assurance Assessment
- Communications and Transport Assessment

We provide a set of questions that need to be answered by organization personnel as they decide how to proceed in transitioning their organizations to adopt net-centric principles. The questions have been from the net-centric checklist prepared by the DoD CIO organization (Net-Centric Checklist Version 2.1.4, 2007) to be answered by DoD Component organizations, Armed Force Services and other DoD organizations.

However, these questions are universal in their appeal and have been modified to address any organization that is currently trying to adopt a SOA-based architecture, a consumer-subscriber model, and a distributed information environment. This addresses any organization that includes large corporations, governmental organizations and numerous business entities.

It makes sense that all of the questions are not applicable to all organizations or all environments. In answering these questions, any person would realize this very quickly. However, the reason to review and capture these questions in totality is that it allows the entire set of information to make sense and work together. Since military organizations are larger and more complex that most commercial entities, the additional degree of rigor necessary to answer all of the questions creates an organization that has a greater degree of interoperability and reliability.

## NET-CENTRIC DATA ASSESSMENT

These set of questions is in line with the overall Net-Centric Data Strategy (DoD CIO NCDS, 2003) and provides a detailed set of questions to be answered when designing and developing a system.