

## Data Center Consolidation and Cloud Migration

### End Client

A Major Command of the United States Dept. of Defense (DoD)

### The Challenge

Replace hardware at the 65 geographically dispersed sites that were at EOSL (End-of-Service Life) and migrate to the newer version of Oracle 11g.

### Our Services

- ✓ Strategy and IT Enablement → IT Program and Project Management
- ✓ Strategy and IT Enablement → Emerging Technology Identification, Evaluation, and Infusion
- ✓ IT Advisory Services → IT Infrastructure & Architecture Assessment
- ✓ IT Advisory Services → IT Modernization Strategy, Planning, and Support
- ✓ Solution Architecture → Requirements Analysis
- ✓ Solution Architecture → Application Architecture & Development
- ✓ Solution Architecture → Infrastructure Design

### Our Approach and the Results Achieved

TekNirvana's support on this project demonstrates our diverse skills and strengths in Infrastructure Architecture and Design, Database and Forms Design and Migration, Application Modernization and Development, Configuration Management, Systems Integration, and Data Center Consolidation. The contract prime brought on TekNirvana to help solve several challenges as part of the Phase II project. One major challenge was that the client IT support organization was primarily organized to support applications based on physical servers whereas effective modernization was going to require Centralization, Consolidation, and Virtualization. Another challenge was that many of the software versions currently being used at the various sites were at or near termination of vendor support. The overall project consisted of five main components/work streams – Infrastructure (Hardware, Storage, and Network), Database, Forms, Applications/Web Services, and Quality Assurance. Each of the five areas had its own sub team and team lead to ensure tasks were executed as planned. A sampling of tools and technologies that we utilized as part of this project includes:

- Infrastructure - VMware vSphere 5.1, vCenter 5.1, Red Hat Linux, Windows Server, Nexus, IBM
- Database – Oracle 9i, 11g
- Forms - Oracle Application Server , Oracle HTTP Server, Weblogic 10.3.6, PL SQL
- Applications and Web Services – C, C++, Java, Oracle SOA Suite, Oracle Service Bus, JMS, JDeveloper, Oracle Enterprise Plug-in for Eclipse
- Quality Assurance – Load Runner, SOAPUI (Simple Object Access Protocol User Interface)

Our systematic approach based on our **CloudNirvana™** framework and experienced staff helped reduce the number of servers by 66 percent and lower year over year operational costs while achieving a modernized environment with more powerful servers that is designed for future expansion and supporting COOP/DR.