

Abstract for Migrating Legacy Applications and Improving Application Performance on NMCI

Systems Management Engineering, Inc.
Eric Zelsdorf, Chief Technology Officer
703.525.7500, extension 222, ericz@sysmanagement.com

Perhaps the most challenging aspect of rolling out seats on NMCI centers on legacy applications. During the heyday of client/server technology (roughly 1992 through 2001), applications were developed at a blistering pace due in large part to the ease of use of the development platforms (Visual Basic, PowerBuilder, Delphi, etc.) and the quick return on investment automating some business function.

The majority of these applications support highly specialized business functions, which is why they are difficult to eliminate. In addition, the federal government's business does not readily (or fully) lend itself to "off-the-shelf" software markets. One cannot purchase a box of "Navy Environmental Budgeting Software" from the local computer store, for example. And the high degree of software specialization to meet a specific government objective often requires a large investment to customize existing ERP or enterprise financial systems; an investment that often exceeds the cost to develop and maintain a smaller custom application.

Working for more than 12 years with the Navy, Systems Management Engineering, Inc. (SMEI) has developed a solution to several problems plaguing the management of certain client/server applications, including:

- Reducing overall number of applications
- Facilitating security accreditation
- Dramatically lowering MAC charges for software updates
- Reducing or even eliminating software rollout charges
- Improving application performance
- Ensuring application security

Using a commercial-off-the-shelf (COTS) application services framework, owners of legacy applications can quickly and inexpensively salvage critical client/server, Windows based applications and re-platform them as secure, Web enabled applications in a matter of weeks or months.

Working with EDS and the NMCI Program Office, SMEI used a non-proprietary COTS technology to successfully demonstrate this approach in a pilot conducted in 2003. The pilot took six different applications written in Visual Studio that supported environmental risk assessment, budget management, project scheduling, reporting and other functions to create a consolidated, automated budgeting tool under a single application umbrella. This effort achieved a 6:1 reduction in the number of applications while saving the core functionality of each individual system, thereby reducing training costs and improving productivity and data quality. The application inherited a very robust, configurable security model that exceeds DITSCAP standards and resolved nearly every application issue associated with NMCI deployment.

SMEI, EDS and our Navy client all believe this solution will successfully address a large number of application issues currently under consideration by the FAMs.