



# Business Process Re-Engineering

The goal of many new software development initiatives is the modernization of existing business processes to gain efficiencies. We at MAR understand that to be successful, we must first work with our customers to recognize the added value a modernization effort will bring to an organization. MAR consultants have years of experience in identifying the need to first look at an organization's requirements, processes, data elements, information flow, infrastructure, and people. From this analysis, we work with our customers to develop a roadmap for a design and implementation strategy. This can include database redesign, data migration, legacy redevelopment, new application development, infrastructure upgrades, and staff training, all deployed in a secure computing environment.

Recent successes include the reengineering of the Bureau of Economic Analysis' (BEA) Central Publishing System, as well as the modernization of a legacy mainframe financial application for the Office of Personnel Management (OPM).

## **Bureau of Economic Analysis (BEA), Central Publishing System**



In 2003, MAR was called upon to assess the BEA's current Central Publishing System (CPS) and make recommendations to improve it. The Communications Division of BEA had previously created the CPS for the publication and dissemination of economics account statistics. Over a three month period, MAR's IT team reviewed the system and proposed several changes, the primary focus of which was the centralization of the many complex data publishing activities into a single core system.

Impressed with the results of the CPS Assessment project, in 2004 BEA asked MAR to design, develop, and implement an enhanced system, including upgrades to software, databases, and business processes. MAR designed and developed a MS SQL Server Database, optimized to accommodate the business rules and data flow of the CPS system. In addition, our team allowed multiple inputs into the database, including APIs, Stored Procedures, and Excel Spreadsheets with customized add-ins. The project was completed on time and within budget, and ultimately reduced time-of-data delivery from hours and days to mere minutes. MAR continues to provide ongoing support and enhancements for the production aspects of CPS.

## Office of Personnel Management (OPM), Service Credit Redesign



In 2004, OPM decided that their current Service Credit Billing and Collection System (SCRD) was in urgent need of upgrading. The purpose of this system was to track and collect service credit payments from former Federal Employees reentering the workforce, allowing them to “buy-back” previous time in service toward retirement. However, the SCRD had not kept up with technological or legislative changes since its design in the 1970s.

Under a subcontract from CA, Software Engineers at MAR undertook the multi-phased task of reengineering this system, which was comprised of a mix of manual processes, spreadsheets, excessive source code, and large, expensive mainframes. MAR designed and developed a new automated system that eliminated all of the previous system’s inconsistencies, inefficiencies, and unavoidable labor-intensive tasks. Our team took care to make certain the new design was flexible, so that when future laws and regulations come into play regarding government retirement benefits, the current system will be readily modifiable. The system was demonstrated to senior OPM management and considered a critical success, and MAR staff provide continuing support for the new SCR D.