

## **What if Government Used an ERP System to Control Cost?**

By Byron A. Ellis-November 15, 2008

Enterprise resource planning (ERP) systems are commercial software packages used by organizations and institutions to integrate business processes across organizational functions and locations. ERP systems could integrate financial, distribution, logistics, quality control, human resources, and other modules that enable real-time access to information across governmental functions and locations.

Organizations implement these systems for measuring individual and organizational performance, preventing internal theft, enforcing laws and workplace rules, and integrating production, inventory control, scheduling, purchasing, and cost accounting.

Thus, a government ERP system that integrates all agencies would improve government efficiency and accountability.

The basic function of ERP system is to handle data: getting, storing, and making the data available enterprise-wide in modules of functionality. Most modules are interdependent with graphical interface and are multi-lingual to accommodate sites in foreign countries.

ERP systems support best practices, such as Business Process Redesign (BPR) across several core business functions. BPR is a pre-planning stage for ERP, a key “mapping” concept for aligning business strategies with information technology. The mapping concept would evaluate value-added and non-value added functions.

Organizations and institutions introduce innovations, such as BPR and ERP, to increase organizational competencies and competitiveness. ERP systems can be used to institutionalize the design of technical “business systems” within governmental agencies. The advantage of ERP systems is organizational integration, the ability to standardize government processes and systems.

Reengineering approaches, such as BPR, that involve changes in work environments usually drive the implementation of ERP systems. Reevaluating many agencies work environment would improve efficiency and reduce cost.

ERP researchers point to five implementation phases. The first is the design phase, which includes “as-is analysis,” “to-be flows,” “gap analysis,” and “prototype development and demonstrations.” The first three items are necessary for the requirement definition process, the last item ensures that the ERP system is congruent with the organization, and internal and external customers; it allows for employee feedback and for the implementation team to review solutions with employees.

The second implementation phase is the construction phase, which incorporates the results of the design phase for configuration, data conversion, custom and interface development, reporting, and authorization administration.

The third phase is system testing and user training; in this phase, user involvement (acceptance) and management commitment are critical. The fourth phase is “go-live,” which involves a cutover plan that the implementation team may execute in stages or simultaneously across functions or locations. The challenge in this phase is to ensure a smooth transition between legacy system(s) and the new ERP system. The final phase is the post-implementation stage. After the “go-live” phase, ERP projects require on-going business process support, as well as application and technical support to the users.

### ***Government Agencies***

Government agencies, including independent agencies, such as Federal Communication Commission (FCC), Federal Reserve Board (Fed), U.S. Security and Exchange Commission (SEC), as well as cabinet level departments and their sub units, such Treasury and its sub unit, the Internal Revenue Service (IRS) would also benefit from the implementation of a single software application. Many agencies use multiple software application that is not interoperable and are inaccessible to other departments within the same agency.

Thus, an ERP system would reduce costs associated with operating multiple software systems; some agencies operate and manage more than five software applications. Streamlining software applications would produce significant labor and hardware savings, and improve access to valuable data.

### ***Congress and the Administration***

Congress through the Administrative Act of 1946 established means of oversight of governmental agencies. A governmental ERP system that seamlessly integrates all agencies would facilitate congressional and executive oversight of individual agencies, provide the ability to access outlays in real-time, and to drilldown on individual expenditures items. Thus, providing Congress and the Administration with timely information that could enhance the decision-making processes.

### ***Reporting Structure***

The ERP reporting structure would mirror the current [executive reporting structure](#). Authority to access and input data into each agency modules would reside within the individual agencies and their respective Office of Inspector General (OIG); the OIG, however, would have read only access to the software application. Each agency cost would rollup to an overseeing Office of Inspector General with read only access, where all outlays could be analyzed and summarized for administrative and congressional oversight. The ERP reporting structure would be similar to Figure 1.

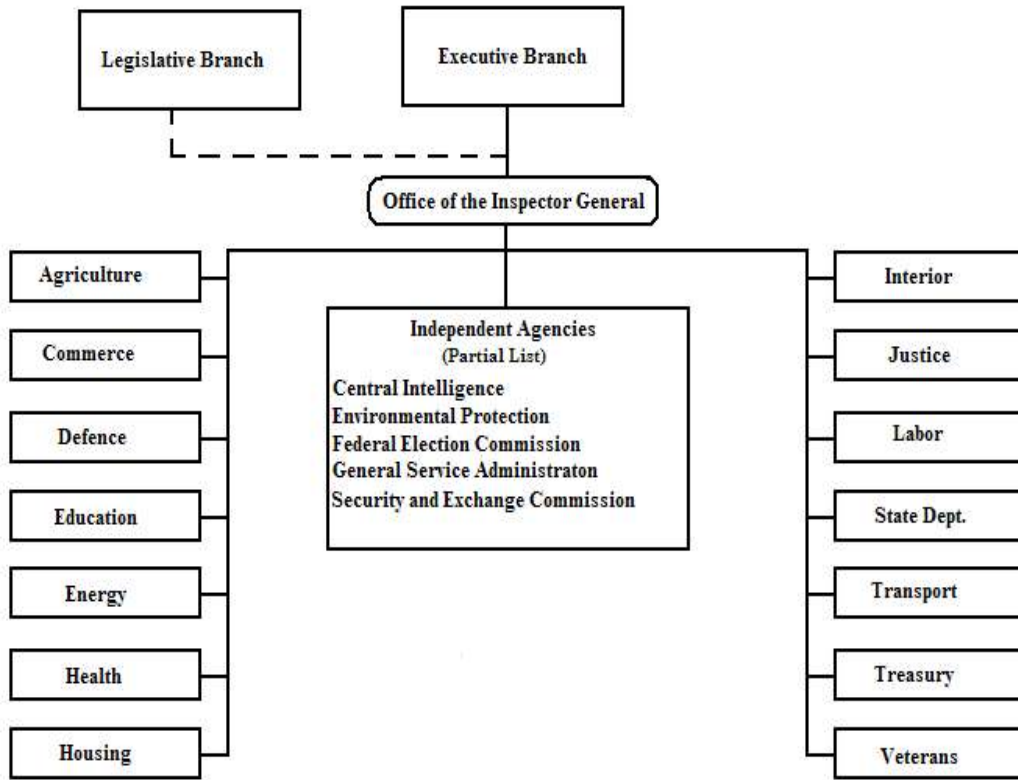


Figure 1. ERP Reporting Structure

By combining managerial best practices and information technology, Congress and the Administration would be able to understand and control agencies' outlays. Moreover, each agency head would be more accountable to taxpayers, Congress, and the President.

Thus, the new framework would require that all requests for quotes (RFQ), requests for purchase orders, projects outlays, asset inventory, and all agency transaction must be processed, documented, and reconciled within the ERP system.

Reconciling cost forces management accountability, and if performance measurements are operational, where cost control is a key performance indicator, reconciling cost would lead to cost minimization, and hence a more efficient government.