Using Oracle to Ease the Transition to Modernization

A tangled mass of legacy-based, stovepipe systems and processes lacking automation and enterprise-wide integration have taken root throughout public sector organizations, making it nearly impossible for most agency executives to visualize how 'modernization' will bring about its benefits. And the situation has grown as government organizations struggle daily to overcome costly, aging computer environments, an impending talent shortage and the ever-growing need to do more with less.

Undoubtedly, the need to reduce costs, improve service, and minimize reliance on legacy skill sets – while ensuring each agency can meet ongoing changes in legislative requirements, is creating pressure on government organizations to modernize operations. While existing applications have become real assets, the need to find newer, lower cost, more agile technologies will only intensify over time. This is largely because legacy applications simply aren't as adaptable – they can't keep up with continually changing legislative requirements, or meet increasing demands for more or better online constituent services.

There's also great risk involved in continuing to rely on legacy skill sets. It's estimated (Accenture Study, 2005) that 60% of the federal workforce will be eligible to retire in the next ten years – and 40% are likely to retire when they first become eligible. Meanwhile, people with skill sets in legacy technologies are becoming harder to find and retain.

The good news is, the advent of advances such as service oriented architecture (SOA), combined with other legacy modernization and integration techniques, greatly enhances the interoperability agencies crave to enable information-sharing within and across departments. Modernization will allow federal agencies to update public sector legacy applications to lower costs, increase agility in serving constituents and other departments, and avoid risks associated with relying on retiring legacy skill sets and the need to continually react to ever-changing legislative requirements. Also via modernization, the federal government can take advantage of commercial off-the-shelf (COTS) applications and technologies based upon open systems, open standards, Oracle's MAA (Maximum Availability Architecture) and Oracle's AIA (Application Integration Architecture) to improve functional capability, integration, interoperability, efficiency, resilience and the "plug and play" usability of software and systems. An example of this is replacing a proprietary mainframe based human resource system with PeopleSoft running on open systems.

Unearthing Modernized Computing Benefits

While these may be difficult to see, federal agencies can reap several crucial benefits by modernizing, including:

- An environment where IT and mission-focused operations are more closely aligned;
- A lowering of the total cost of ownership for technologies;
- Consolidation of technologies and suppliers;
- Reduced reliance on legacy skill sets;
- The creation of more agile systems that react more quickly to legislative demands;
- Maximized use of standards-based technology.

Directions, Please

SOA is considered an important first step, because it allows federal organizations to, in effect, put a services layer on top of what's already in place. Because that top layer changes most frequently, SOA creates a low-cost alternative platform to help agencies reuse existing legacy assets, but still make needed changes as they move forward. Legacy applications and platforms can then be modernized as budgets allow, helping government organizations avoid costs and do more effectively. Since this approach makes as much use of legacy assets as possible, it's not as jarring or financially burdensome as a 'rip and replace' course of modernization.

In fact, there are several 'best practices' steps federal organizations can take to jumpstart their modernization efforts, including:

- Inventory existing legacy applications and determine the risk of each system as compared to the ability to retain resources knowledgeable in these older technologies.

- Develop a modernization road map in order to achieve an open systems-based, service-oriented architecture platform.
- Create a central 'architectural committee' or board to help create/enforce enterprise-wide standardization decisions. When government organizations don't use this type of committee it becomes nearly impossible to move forward, as program departments simply won't adhere to standards without that centralized authority.
- Consolidate both technologies and providers. Taking advantage of modernization techniques, such as SOA integration, re-hosting, automated migration, COTS replacement, and re-architecting, to transform legacy applications into next generation IT environments. Each federal IT organization can choose the best combination of modernization techniques to update each application, depending on specific agency needs.
- Use SOA services in combination with process-orchestration engines capable of driving services, such as Oracle BPEL Process Manager. This type of solution enables the creation of applications that more closely reflect public service procedures and work flows. Such process-driven applications are also easier to enhance and maintain because process changes are removed from individual services and incorporated into an easier-to-change orchestration layer that uses reusable SOA components.

Setting Oracle Apart

To finally get to that next generation IT environment, federal agencies and departments must find a way to reuse content from existing applications – and modernization is the best way to make this happen. Understandably, budgetary constraints can make hefty investments impossible. Oracle can help agencies pick small projects that can often derive immediate and dramatic up-front cost savings. Because Oracle's modernization solutions enable quick ROI and provide an incremental approach to moving forward, Oracle's solutions create a low risk approach to modernization. By working with Oracle and its partners, Oracle can provide federal audiences with agency-specific roadmaps and implementation options.

The Oracle Modernization Alliance (OMA), for example, is a collection of Oracle partners that provide such solutions. These partners include system integrators, modernization vendors, and technology vendors that provide key modernization components. The OMA brings the many various modernization solutions together and categorizes them into a one-stop shop for modernization. In this way, government organizations can quickly and easily review solutions to choose the best combination of tools and suppliers to help them achieve modernization goals.

Oracle has successfully modernized its own operations, saving over $1 billion so far, and is investing in technologies to achieve the company's 'Fusion' vision for the future. With a personal stake in modernization's benefits, Oracle understands the challenges government organizations must overcome. Using Oracle's tools, techniques and partner ecosystem, public sector organizations can rely on Oracle to help them get there.

For more information, please visit

www.oracle.com/goto/modernization

or call 1.800.633.0584.