

Enabling eGovernment Through Data Integration

eGOVERNMENT: WHAT'S HOLDING US BACK?

eGovernment will transform the way government and citizens interact. It is designed to increase efficiency among government organizations as well as improve overall service to the citizen. But the public sector's huge installed infrastructure of information technology is the product of decades of incremental, uncoordinated technology investment, and is a major barrier to eGovernment.

Prior to the current eGovernment push, the public sector approached problems by purchasing technology products without regard for the complexities of integration, or for the implications to the rest of the infrastructure. Yesterday's stovepipe approach makes it extremely difficult to share and access information within and across agencies. Information flow, coupled with the ability to analyze performance based on this information, is the lifeblood of any government and the promise of eGovernment.

Integrating the data in government computer systems into a single, virtual resource will help drive the transition to eGovernment. Agencies must be able to pull data from any location, correlate it with data from other systems, and present it in the personalized format most useful

for the requestor. Millions of individuals will then have easy access to the precise information they need, as well as the big-picture view that is difficult to achieve with disparate systems.

SYNOPSIS.

Government computer systems contain more data than those of any other business entity, but the usefulness of that data is severely limited by the lack of integration among systems. Satisfying queries that span multiple systems requires manually extracting, correlating, and comparing data—an imprecise and time-consuming task. To reach their full potential for public service, government computer systems must be linked through a common platform so that all data resources are easily accessible.

TOO MANY SYSTEMS, TOO MANY TECHNOLOGIES.

One aspect of the integration challenge is the sheer size of government. With hundreds of thousands of existing systems and millions of requestors with differing requirements, integrating government data is a major challenge. The addition of more systems and requests each year further compounds the problem.

In addition, the lack of data integration means that many government processes are manually intensive. Data cannot be easily correlated due to different data structures and outdated interfaces. For example, comparing suppliers across procurement systems located in different agencies requires manual data export and correlation. Even though each procurement

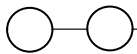
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system offers a reporting capability, there is typically no way to compare information located in different systems, or even across multiple instances of an application running in different arms of the same agency.

This type of comparison and correlation is critical across the value chain. People with procurement responsibilities must not only compare suppliers, but must use the com-

ment agencies need to perform. Further, agencies are challenged to lay the groundwork to take advantage of systems and technology not yet developed. Achieving eGovernment requires leveraging existing resources while taking advantage of new systems and technology.

- Better information collection for use by government employees
- More effective delivery of government programs
- Better understanding and management of relationships with the public, suppliers, employees, and government agencies and bureaus



"There is one suite of tools particularly apt for assisting agencies moving into eGovernment, both with the implementation of the needed architecture as well as with its principal set of applications. Through its data integration solution, Informatica has positioned itself to assist organizations in establishing a data movement infrastructure. This is a critical prerequisite for electronic government."

DR. RAMON C. BARQUIN, PRESIDENT BARQUIN AND ASSOCIATES, INC.

parison data to address related issues such as the cause and effect of late deliveries. Even with all the computing resources at the disposal of government agencies, it is virtually impossible to provide the cross-platform information views that best serve the public.

TOO DIVERSE TO DISSEMINATE.

The audience for disseminating all that data is also diverse. Users need data in a variety of ways, making information dissemination a huge challenge in the government sector. Even a single agency, such as the postal service, may have hundreds of thousands of employees. When the general public is added to the equation, the number of people requesting information from the various systems can reach into the millions. Locating the needed data and using it to turn requests into personalized information is a complex and time-consuming process.

CAN'T REPLACE LEGACY SYSTEMS.

Replacing systems with new technology is not the answer. There is not one system that covers all the processes that govern-

NEEDED: A NEW APPROACH.

eGovernment must be supported by a new approach to technology, rather than a new technology itself. This approach must address the following objectives to provide the best possible service to the public:

- Leverage legacy systems through connectivity with multiple, diverse systems
- Support new systems and technologies as they become available
- Take advantage of user interfaces that are easy to learn and use without extensive training
- Offer extensive analytics that readily transform data into usable information

Meeting these objectives will help drive the transition to an eGovernment that leverages the full potential of government systems to serve users within agencies and throughout the general public. Benefits of eGovernment should include:

- Better dissemination of information to citizens
- More efficient transactions among organizations: business-to-government, government-to-government, government-to-business

These benefits can be achieved today by adding a layer of intelligence that connects all government systems. Beneath this layer, existing systems will remain intact and continue to perform their current functions. The new layer will integrate data across diverse systems and use appropriate analytics to transform the data according to agency rules or end-user requirements. Data will then be made available in various formats through third-party query reporting platforms. The ability to integrate and correlate data from diverse sources and then link the results through reporting tools to provide personalized data to different audiences is central to the effectiveness of eGovernment.

ADDING DATA INTEGRATION.

Traditionally, investments in government systems have focused on system upgrades and implementing new technology. Both are valuable, but neither addresses the issue of data integration. Adding a data integration layer that provides cross-system communication and analysis will not only enhance the value of government systems today, but it will build a foundation for maximizing the value of computing investments for the long term.

The data integration layer need not replace systems or technology, because it leverages all systems and all technologies to support current and historical resources. In addition, this layer must work with business intelligence tools and analytic applications from many different vendors to provide the personalization required by eGovernment.

Finally, the issue of scalability and extensibility is central to eGovernment. Governments tend to be large, growing, changing entities. By adding a layer of software rather than attempting to upgrade or

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change systems, this solution will scale to volume on the same hardware and offer the extensibility to add new sources as they emerge.

INFORMATICA DATA INTEGRATION AND ANALYTICS.

The Informatica data integration platform and Informatica Analytic Applications can unite all the data in disparate government systems into a single, high-leverage resource. Uniting data means more than just simple data transfer: it means making data from diverse systems meaningful outside the context of individual applications. For example, school districts commonly give standardized tests to help understand how each school is performing relative to other schools, both inside and outside the district. The statistical results of these tests are an important factor in determining fund distribution for student programs. A good understanding of how each school is performing in various areas helps ensure that funds are distributed in a manner that will serve to raise scholastic achievement.

Without electronic integration that unites data from all the schools, the process of manually gathering, analyzing, and dispersing data is difficult and time consuming. With manual methods, it is very hard to answer questions such as how many students got a particular question wrong, or which subject is the weakest overall. Information captured at this granular level and analyzed at the macro level helps provide the insight needed to design effective programs and appropriately allocate funds.

DATA ANALYSIS FOR ANY USER.

Such information also allows external constituents to compare schools within a district or make similar comparisons throughout the nation. This type of across-the-board analysis is the heart of the Informatica data integration platform. Key is the ability to accept data from all sources, and correlate that data without programming languages such as SQL or COBOL that require a heavy emphasis on

maintenance over time. Informatica solutions enable any user to combine data from legacy systems, business portals, Web logs, relational databases, CRM applications, procurement systems, and other sources, using a drag-and-drop interface to create links among sources and targets.

With this interface, the user determines where information is coming from and where it is going. Users can access data through partner tools, business intelligence tools and query and reporting tools that sift through the data and create ad hoc reports. Analytic applications can also be used with pre-written queries and pre-populated data models for specific applications.

Most important, the Informatica approach keeps pace with government evolution. Through personnel changes, new systems and new data, all resources would remain accessible. Integrating systems and data into this accessible information resource would create an insight solution encompassing the historical build-up of all the data sources and applications that make up a government.

AN INSIGHT SOLUTION FOR eGOVERNMENT.

eGovernment built on Informatica-based insight will enable citizens to better understand the world in which they live and how government agencies affect that world. Whether the issue is school systems, transportation, or any other government service, an insight solution can provide the analytic applications and integration with third-party tools required for appropriate agencies to view current data, combine or transform data to make better decisions, and perform daily tasks more efficiently to better serve constituents.

eGovernment is critical for understanding and addressing constituents' needs. In providing a data integration layer that leverages existing investments and third-party tools, Informatica software offers a mechanism for evolving the government of today into the eGovernment of tomorrow.

ABOUT INFORMATICA.

Informatica provides enterprise analytic software that enables decision makers to transform business insight into competitive advantage. Informatica provides the industry's only integrated set of analytic products, including a powerful data integration platform, a suite of cross value chain analytic applications, and real-time delivery of personalized analytics via web, wireless and voice. More than 1,300 customers, including 60 percent of the Fortune 100, rely on Informatica software to integrate, analyze and deliver critical information to managers, executives and other decision makers to optimize business performance.

Our list of global customers includes 3Com, AMD, American Airlines, BMW, Borders Group, Chevron, Cisco, CNET, Deutsche Bank, eBay, General Electric, Hewlett-Packard, MetLife, Motorola, Philips, Polo Ralph Lauren, Sprint and UBS.

For more information on the full capabilities of Informatica software, please call us at 1.800.970.1179, or visit our Web site at www.informatica.com.

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