

A GOVERNMENT TECHNOLOGY® INDUSTRY PROFILE: EZGOV

E-GOVERNMENT

# Making Sense of a Revolution

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# e-Government: Making Sense of a Revolution

**T**hey shop on the Internet. Plan their vacations on it. Make long distance calls on it. Do their banking on it. Find jobs on it. And now your constituents want to interact with government agencies on it, too? The rise of e-government is officially underway, and governments throughout the country are engaged in a rapid process of understanding what it means to communicate and conduct business with their constituencies online.

This is the first in a three-part series designed to help agencies and IT departments orient themselves within this new online world. Its purpose is to clarify the key questions — and appropriate responses — for any electronic government initiative.

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## State of the Union

The e-government revolution has gained significant momentum during the last six to nine months. Demand for Internet services has been fueled by the private sector, where citizens have grown accustomed to using the Internet for an ever-growing list of transactions and searches. In turn, government agencies at the local, state, and federal level have recognized the need to provide their services online as well.

“If you look around at what’s going on in the commercial sector, everything is moving to the Web,” said Paul McDonnell, tax assessor of Riverside County in California. “It’s not just the wave of the future, it’s here now, and in government we operate with limited dollars. We don’t have huge budgets, so we need to leverage our resources and be real smart about where we’re putting our money.”

Agencies have increasingly sought ways to employ technology to improve services, streamline operations and address citizen demand. While every state and many local governments have a Web site, a lot of governments have taken the next step of redesigning their Web presence as a citizen-centric portal (vs. a series of static Web pages aligned vertically by agency), and implementing e-commerce capabilities, all built with a common architecture.

Many local governments have implemented online review and payment applications that integrate into existing back-end systems. These applications permit companies and citizens to conduct business with their government online rather than in line. In Riverside County an online property tax review and payment system has been in effect since March, and county workers have already experienced relief from the overload of tax-related phone calls, according to McDonnell.

“We’ve seen additional savings. For example, the number of folks who looked up the

system, not for payment but just to look, resulted in a reduction of processing time,” said McDonnell. “A lot of people went to the site, checked out their property and dropped a check in the mail.” This cuts down the time and money it takes to process refunds or engage in phone inquiries when citizens lose their bills or have only last year’s bill, according to McDonnell. Many others actually completed their payment on-line. In its last property tax cycle, Riverside County received its last payment at 11:54 p.m. on the day it was due, proving in very tangible terms the power of 24-hour government.

As a result of the early activity and long-term promise of e-government, nearly every industry publication and conference has dedicated considerable attention to defining the industry and highlighting the best practices. Likewise, the popular press has begun significant coverage of the topic, with more than 106 references of the term “e-government” (in Dow Jones Interactive) in May alone. This is a considerable increase from the 10 or so references per month the previous year.

Has the increased media attention translated into heightened citizen demand for e-government services? In an Internet survey conducted by ezgov, more than 90 percent of those surveyed said they were likely or very likely to use the Internet to conduct business with the government. As such, most governments now view the deployment of e-government not as a matter of “if” but rather “how”.

### e-Government Defined

The term “e-government” — as with all words prefixed by the now ubiquitous “e” — is fast sinking into a sea of vague definitions. Perhaps the best way of thinking about it is as follows: e-government is leveraging the Internet to simplify government.<sup>1</sup> The term “e-government” is further clarified in terms of its beneficiaries, which can be segmented into two primary groups:

1. “*Online Services*” for external constituencies. These include groups external to, and served by, government, such as citizens and businesses. The primary focus of the e-government revolution to date, these stakeholders are being offered simplified services by government via initiatives such as citizen-centric portals delivering interactive content such as community calendars and Frequently Asked Questions (FAQs), and transactional applications such as electronic review and payment of parking tickets, property taxes and business licenses.

2. “*Government Operations*” for internal constituencies. Groups within the opera-

## The Two Dimensions of e-Government

**ONLINE SERVICES**  
Applications that serve a government agency’s “external audience,” including citizen-centric portals, community calendars, FAQs and transactional applications.

**GOVERNMENT OPERATIONS**  
Services that benefit government employees and other “internal” groups, including electronic procurement, web-based document management, electronic forms and Intranet.

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tion of government itself — specifically, government employees. Initiatives such as electronic procurement, Web-based document management, electronic forms, and the like are all leveraging the Internet to simplify the operational demands of government.

Although Online Services and Government Operations face different stakeholders — one outward and one inward — they should not be thought of as independent initiatives. For example, the deployment of an application for online business license renewal might allow businesses to enjoy automatic notification of license expiration as well as a 24-7 renewal option free of paper work. Government employees, whose job it is to enforce accurate license renewals and timely payment, would clearly benefit as well.

### What e-Government is Not

Terms such as “data resale” and “digital democracy” are also frequently mentioned within the same breath as “e-government.” Neither of these terms, however, observes the principle of leveraging the Internet to simplify government. Data re-sale, which includes such common practices as the sale of DMV records to insurance companies, has only gained association with e-government since governments began using it as a source of funding for online initiatives (such as portal development). Digital democracy is, in fact, “e-politics” rather than e-government; that is, leveraging the Internet to simplify the election process (rather than government).

It is important that these terms not muddle the objectives of e-government. Consider the issue of data resale. Some governments have recently bundled data reselling into their e-government initiatives as a means of funding the development costs. The result, however, is a rather Faustian bargain for the public: simplified services via the Internet offered not at a dollar cost but rather in exchange for private citizen information sold to commercial entities.

The underlying flaw of this approach is that the online services are only beneficial if citizens use them, and they will only use them if they trust the services implicitly. The trust factor is the key to success: a recent survey of 1,000 U.S. citizens found that an overwhelming 94 percent would be “very concerned” or “extremely concerned” if their governments were to fund e-government initiatives in such a manner.

### Creating Efficiency Through e-Government

Much of the interest in e-government is owed to the following theory: electronic government improves the “business of government” by creating more efficient and convenient constituent-to-government, business-to-government, and even government-to-govern-

ment interaction. This is a powerful proposition for the government segment, which is often asked to do “more for less.”

Those jurisdictions that have begun to put this theory to the test have been pleased with the results. “This will speed up the process, save time, and is just a better way of doing business,” said Tom Mullen, chief deputy treasurer of Riverside County, which recently launched an online service for review and payment of property taxes. The most obvious benefit provided by electronic government is having 24-hour remote access to government transactions and services.

“Adding people is very expensive, there’s nothing earth shattering about it. That’s why people in the commercial sector have gone to using the Web because you can set up a self-service module that gives people a tremendous range of options that really didn’t exist before,” said McDonnell. “We have phone systems, as do many other organizations, and those are really cumbersome. The Web just puts it in a whole new universe.”

There are more than just qualitative results supporting the notion of improved efficiency. During spring and summer 2000, ezgov worked closely with several large counties and a market research firm to map out the business process and to quantify costs for handling property tax payments manually vs. electronically.

The methodology for this study was as follows: in each county, the cost components were identified for each individual action performed during the transaction — a true “time-motion” evaluation of government processes. Business cost analyses were used to evaluate the results (see sidebar).

The results of this study are impressive. Figure 1 identifies the process flow for traditional vs. electronic payment flows.

Electronic transactions eliminated manual intervention, and allowed the transmission of funds and the updating of data simultaneously into the back-end system. Business rules within the application empowered citizens to verify the validity of a transaction. Equally important, payments delivered electronically reduced the county’s cash float significantly. For payments made via paper check, it often took as many as 12 business days before citizen funds were transferred to a county account. Receiving payments electronically reduced this timeframe to a mere two business days. All told, web-enabling property tax payments resulted in a variable

## Quick-Primer: Business Cost Analysis

Any business (or government for that matter) faces two types of costs. The first type of cost is termed a fixed cost, and is defined as the up-front expenditures that a business makes irrespective of the volume of goods or services that the business produces. Examples of fixed costs include land, equipment, buildings and advertising. For a government, fixed costs would include any up-front costs for information technology (IT) hardware and associated software licensing and maintenance. No matter what volume of goods a business produces (or payments a government processes), the fixed costs are the same.

Variable costs are costs that can be allocated to a specific unit of production. In the automotive industry, a variable cost would include the bolts that attach various parts or the paint that is applied to the exterior of the car’s body. The total amount of variable costs that businesses or governments face corresponds directly with the total output they generate. In the tax payment-processing world, variable cost includes the hourly labor needed to process payments, answer questions, and maintain records of citizen transactions.<sup>2</sup> In the IT environment, variable costs include transaction payment-processing costs, telecommunication costs and other costs that vary directly with total output.

cost savings per transaction that dropped from more than \$5 per transaction to approximately 22 cents per transaction.

Figure 2 breaks down the source of variable cost savings more precisely.

Given these numbers, e-government initiatives such as this are justifiable by cost saving potential alone. Yet electronic government provides benefit beyond a financial bottom line.

### Added Benefits

Among the other benefits of e-government, an important one is the citizen goodwill which accrues to those agencies which seek to reduce the frustration associated with traditional government interaction. “The thing is, we’ve had a lot of demand from customers who were saying ‘Jeez, you ought to go online,’ McDonnell said. “We already had a Web site and we were using it more and more for informational purposes and we knew this would be the next step. We knew if we had it people would use it. There were people begging us to put it in place.”

An increasing number of government officials are sensing other benefits to e-government.

“We feel it will cut down on actual traffic that comes into the building,” said Joe Silver, tax administrator of Davidson County, N.C. which is set to roll out a system to pay property taxes online. Liane Levetan, CEO of Dekalb County, Ga seconds this viewpoint. “If you can keep people off the road you can cut down on pollution,” said Levetan. “We’re in an area where we’re trying to get people out of their cars.”

Silver also sees a potential to reduce the

Figure 1: Process Flow - Traditional (Manual) vs. Electronic

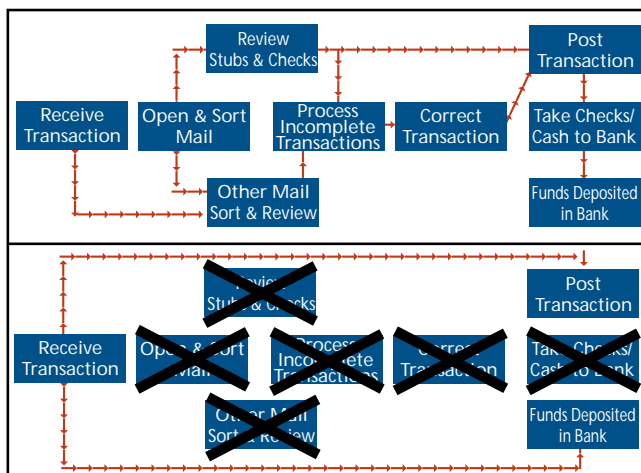
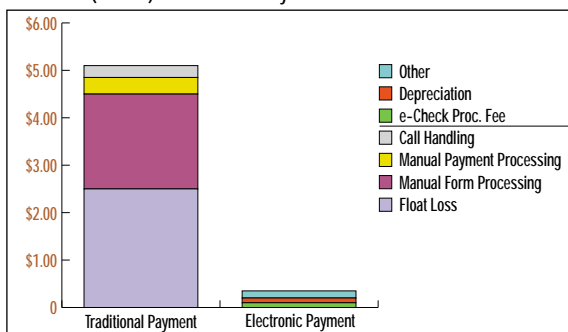


Figure 2: Variable Cost Components — Traditional (Manual) vs. Electronic Payment



number of delinquent payers: "With a person paying by credit card and using the Internet, they may not have the cash to pay but they've got an account balance and a credit card and that would forego us from taking drastic measures to collect the taxes."

### Questions Every Government Should Ask

The demand for e-government is strong and growing. With a sound understanding of the various categories of e-government and the inherent benefits of effective solutions, agencies will be in the position to evaluate their e-government initiatives.

To address the very important question of how best to implement e-government solutions, ezgov will follow this paper with two more in the next two issues of Government Technology magazine. Next month's discussion will stress the extraordinary importance of understanding public policy as part of any e-government project. Specific topics will include policy and the implications on privacy, accessibility, payment processing and the digital divide.

The third paper will address the nuts and bolts of building a viable solution that integrates the "front-end" application with the "back-end" legacy system - a system that fosters a stable, secure environment for the flow of information and funds. Additionally, it will address the often-overlooked importance of building a clean, self-explanatory user interface.

Finally, the key insights from each of these papers will be synthesized in a list of critical questions that should be asked when preparing to launch an e-government initiative. The key questions from this paper are located in the Critical Questions sidebar on this page.

For more information, please visit us at [www.partner.ezgov.com](http://www.partner.ezgov.com).

### Critical Questions:

- \* Does my government understand the broad definition of e-government?
- \* Does my government understand the difference between the two main categories of e-government: online services and government operations?
- \* Does my government have a plan to support and link individual agency solutions?
- \* Which of the categories does my government want to implement? What are the biggest priorities?
- \* What are the implications of bundling two or more of these categories into a single implementation?
- \* Does my government understand the issues related to including data reselling/information brokering into the e-government definition?
- \* Does my government understand the benefits of e-government?
- \* What model will give my government the best return on its investment?

<sup>1</sup> It should be noted that simplification of government via the Internet might be delivered across channels other than Web browsers. Alternate access/delivery channels include wireless access devices and voice over Internet Protocol (IP).

<sup>2</sup> To be fair to the economist, labor is not a purely variable cost. Rather, it is more "semi-fixed," as labor cannot be added and removed from operations without friction. For the purpose of analyzing electronic government, however, we assume that workers can be added or removed from certain government processes and reallocated as necessary to other parts of the organization.



Software Foundations for e-Government

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