A growing crisis in staffing levels due to accelerating retirement rates and continued tight budgets is becoming a common challenge across all levels of government.

There are concerns over how to handle expanding workloads. It’s also important to find effective ways to preserve and transfer organizational know-how.

Hiring their way out of this crisis is not a sustainable solution for governments.

This white paper discusses how governments can find a true solution to overcoming this challenge by combining lean management and continuous improvement principles with enterprise content management (ECM) technology to streamline and automate their core business processes.
Too Much Work, Too Few People

If there is one common challenge facing public sector organizations today, it’s this: a growing crisis in staffing levels due to accelerating retirement rates and continued tight budgets. Two statistics show the significance of these factors:

• Research data analyzed by Governing indicates that in some state agencies, more than 40 percent of the workforce will be eligible for retirement by 2017.¹
• As of mid-2014, there were 500,000 fewer local government employees nationwide than in 2008.²

The staffing squeeze creates a big concern for how to handle workloads that are expanding with new projects and laws to implement, more citizens needing services or simply local population growth. As current employees need to take on new jobs or unfamiliar responsibilities, it is also important to find effective ways to preserve and transfer organizational know-how.

Yet even when budgets increase, public sector organizations won’t necessarily be able to hire their way out of this crisis. Government personnel recruiters are finding it difficult to attract new employees, especially early and mid-career professionals. The appeal of a job that serves the public good often can’t compensate for the higher salaries, creative perks, and strong opportunities for learning and career advancement the private sector offers.

With fewer people and more work to do, it’s clear that how work gets done needs to change. Some governments have already recognized this necessity and are looking to combine lean management and continuous improvement principles with enterprise content management (ECM) technology to streamline and automate their core business processes.

Finding an Answer in Process Automation

Early process improvement projects have focused on adapting discrete transactions, such as allowing constituents to apply for a license or benefits program through an online form instead of making an in-person appointment. By itself, replacing paper forms with electronic documents can produce efficiencies. However, the bigger impact on workload comes from simplifying and automating the review, approval and action processes initiated by those forms.

Process redesign takes a deep look at what is done, by whom and why for each task and each document, decision or action involved. The goal of the redesign is to create a process that follows only those steps that are truly necessary and that are optimized to help employees see the right information and perform the right task at the right time.

“There are dozens of ‘Oh, yeah you need…’ steps and documents that people don’t think about when they’re working through a process manually, but these steps need to be identified and evaluated when you’re trying to automate those actions,” says Jim Burke, IT director for Olmsted County, Minn.³

Once the process has been redefined, it’s time to look at how technology can be used to simplify, support and accelerate that process even more. An ECM system serves this need by providing a central repository for electronic documents and tools to automate the workflows around them.

Additionally, when the ECM system is integrated with financial, enterprise resource planning (ERP), email, human resources, case management and other applications, processes become even more efficient and produce more cost savings or other forms of value.

“One goal of our process improvement efforts was to free up time for our staff so they could do value-added work,” says Ed Rolon, information technology manager for the city of Boca Raton, Fla.⁴ “For example, one accounts payable clerk used to spend two hours each month manually entering data from utility company invoices for our facilities. Today, the utility company sends their invoice electronically, which means the new process takes about 45 minutes to review the information before uploading the electronic file to the accounting system.”
Process Automation: How It Works

An ECM system provides the starting point for capturing forms and documents, analyzing their content, and then automating their routing for reviews and action. An ECM system also automatically manages appropriate retention of the associated records in compliance with agency policy, state laws and regulatory requirements.

The diagram below shows how a typical accounts payable process is automated through integration of ECM and financial systems.

1. Paper invoices submitted by departments are scanned into the ECM system; electronic invoices are imported automatically.
2. Purchase order (PO) information is transferred from the financial system to the document’s metadata via an integration so all associated vendor and PO information is available when a user opens the invoice in the ECM system.
3. The ECM system routes the invoice document via email to the department head for approval. The department head approves or rejects the invoice by selecting an option from a drop-down menu on the document. If the invoice is denied, it is sent back to the requester with an explanatory note.
4. If approved by the department head, the ECM system routes the invoice via email to the controller for approval. If the controller denies the invoice, the ECM system sends it back to the department for corrective action and re-submission.
5. If the invoice is approved by the controller, payment is authorized in the accounting system. Payment information is transferred to the ECM system via the accounting system integration.
6. The ECM system saves the paid invoices in record series and assigns the appropriate retention period as defined in the agency’s records plan.

By using the ECM system to store the invoices, automate the workflow and integrate with the accounting system, the agency is able to reduce errors and delays. Vendors receive timely payments and the agency may be able to take advantage of early payment discounts.

An Automated Accounts Payable Process
What Governments Gain from Automated Processes

The initiatives of two local governments show what it takes to successfully redesign business processes and the benefits that can be gained from such an effort.

**City of Boca Raton, Fla.**

A steering committee within the city of Boca Raton oversees projects to apply lean principles and automation for improving business processes. Committee members come from various citywide departments. The steering committee evaluates and prioritizes project requests, giving top priority to processes that affect many staff members and multiple departments.

The committee chose accounts payable as the first process for redesign because of its citywide impact and the unnecessary complexity that made it ripe for improvement. Three major process areas were addressed in the redesign:

1. **Vendor setup.** The new process replaces paper forms and emails with an online form to collect all required company, tax and banking information from new vendors. The workflow automatically routes the form to the accounts payable manager for approval and sends status emails to the vendor.

2. **Invoice processing.** Vendor invoices are submitted in a portable document format via email, eliminating the risk of losing paper invoices that previously were sent via fax, postal service or delivered in person. Electronic invoices also eliminate the risk of errors caused by manual data entry and reduce staff time needed for invoice review. The invoice processing workflow handles backup and supporting files for the invoice and tracks the status of required approvals.

3. **Payments and reconciliation.** Processing and reconciling invoice payments involved multiple steps and many hours for accounts payable and IT staff. Only paper copies of invoices and checks were available and departments had to call to find out about payment status. Today, accounts payable generates the checks and an electronic check image is saved with the invoice in the ECM system.

The city has also used its ECM system to automate processes for reserving training rooms and handling requests for public records. Additional processes planned for automation include field purchase orders, permits for special events and hiring new employees.

**Olmsted County, Minn.**

Many departments within the Olmsted County government had proposed process improvement projects, but they were stalled because the high cost and

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### Key Processes to Consider for Automation

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effort couldn’t be justified. It was clear the county needed the right organizational structure and the right technology to focus on high-priority processes.

The first process chosen for automation was enrolling clients in health plans under the Affordable Care Act (ACA). “The ACA meant a significant increase in caseloads was coming to our Community Services Department and we knew we couldn’t solve it just by increasing headcount,” says Burke.

For this project, Olmsted County first implemented an ECM system, which serves as a document repository for a separate human services system. To ensure a successful and smooth project, the IT team applied three principles:
1. Design the processes so that no custom integration would be needed between the ECM and human services systems.
2. Fully understand the requirements for electronically transferring documents between the systems.
3. During the testing phase, conduct employee training to make sure they would be ready to work with the new process.

As a result of these efforts, the county was able to handle a 30 percent increase in ACA-related caseloads while avoiding the need to hire 12 additional employees, which will yield a 5-year cost savings of $1.5 million. Today, the productivity ratio for number of cases per employee continues to improve as staff gain more experience with the new process and systems.

Another project uses the ECM system and automated workflows to improve the process for preserving documents that are related to pending litigation. This project eliminated nearly one-third of the steps involved, which reduced the associated costs by 35 percent and the time delays by 69 percent.

To cover the county’s costs for the ECM system and process improvement work, the departments were willing to pay an annual budget charge based on their headcount. “The annual charge eliminated the ‘not from my budget’ resistance to investing in new technology and operational changes,” says Burke.

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**Key Benefits from Automating Government Business Processes**

**Cost Savings**
- Fewer process steps and less paperwork lower the direct costs of performing a task or delivering a service
- Automation supports the productivity necessary to handle more work without needing to hire more staff
- Elimination of paper documents reduces handling costs, storage space and management burden

**Efficiency Improvements**
- Electronic documents and automated routing make it easier and faster to obtain reviews and approvals
- Standardized online forms ensure all needed information is included and can be used to launch the associated workflow
- Improved transparency of document and activity status makes it easier to identify causes of approval delays as well as process bottlenecks

**Fewer Errors**
- Automation means routine business processes are completed more quickly and produce fewer errors that require staff intervention
- Defined workflows provide greater visibility into the sources and causes of process errors and the ability to reduce them by revising forms, processing steps or routing rules
- Similar processes can be made more consistent, even if individual departments or programs retain some customization

**New Capabilities and Services**
- Supports creation of Web portals that provide a single access point for common forms and activities conducted by vendors, citizens, local business owners, reporters and other constituents
- Electronic documents enable easy access to information and forms that otherwise would require proactive routing by another office or department
The idea of revamping an entire process can seem too daunting, too fraught with internal politics, and too demanding of time and resources to be worthwhile, but government organizations can streamline complex, high-impact business processes by following a formal process for the redesign effort itself.

How to Initiate Process Automation in Your Organization

It may seem that the easiest way to improve a business process is to define the most obvious bottleneck or pain point and fix only that. The idea of revamping an entire process can seem too daunting, too fraught with internal politics, and too demanding of time and resources to be worthwhile.

Yet government organizations are streamlining complex, high-impact business processes by following a formal process for the redesign effort itself. For example, the city of Boca Raton performs several well-defined steps for analyzing, improving and automating its business processes.

1. **Invite and prioritize requests for process improvement.** Determine the type of process improvements that will be considered. Define the criteria for prioritizing the redesign efforts, such as giving higher priority to projects that impact multiple departments or functions.

2. **Hold a kickoff meeting.** For each project, call an initial meeting of the process improvement team and all key stakeholders to discuss project goals, scope, schedule and activities.

3. **Apply lean discovery methods to evaluate the current process.** In the city of Boca Raton, stakeholders mapped out the existing process by sticking notes to a wall. Every step, no matter how small, was included. Stakeholders evaluated each step in detail, asking what value it brought to the process and eliminating non value-added steps.

4. **Map the new process.** Consider using flowchart software to diagram the new process, including only the steps identified as essential.

5. **Design online forms and automated workflows.** Create the automated workflows, electronic forms, metadata definitions and routing rules in the ECM system.

6. **Test the new process.** Based on issues identified in the testing phase, be ready to redesign parts of the workflow to improve its usefulness.

7. **Train users on the new forms and process steps.** A user guide to the new process can present detailed instructions and screenshots for each step. It can be used in training classes and made available to employees through an internal Web portal.

8. **Launch, monitor and fine-tune the new process.** After employee training is complete, launch the process for regular use and continue to make changes as needed.

Frequent communication with managers and employees is essential throughout the redesign effort. The city of Boca Raton’s lean steering committee communicated with stakeholders through monthly newsletters that presented progress reports to help generate buy-in for the planned process changes.

Reflecting on the experience of Olmsted County, IT Manager David Nault says, “If you think you’ve communicated with your employees enough, you haven’t. You need to communicate your plans again and again to make sure everyone understands where you’re going.”

The Role of a Process Automation Team

Olmsted County’s story shows another important factor in process redesign: Forming an automation design team within IT and, if appropriate, a separate team that works on continuous process improvement activities. The members of Olmsted County’s automation design team include a project manager, business analyst, workflow specialist and records management specialist. The continuous improvement team members are facilitators who work with department staff to analyze needed improvements to business processes, based on lean management principles. In the city of Boca Raton, the
workflow team started with one staff member but has grown to three business system analysts who report to Information Technology Manager Ed Rolon.

“You need to make the automation and online forms simple so that departments will see how the new processes make their work easier. This is especially important for departments that rarely use a process and so don’t know where to start or what paperwork they need.”

David Nault, IT Manager, Olmsted County, Minn.

Getting Everyone to Buy In
Organizational support at the executive, department manager and employee level is vital for successfully redesigning processes and investing in new systems, then getting those changes to stick. At the executive level, “Leaders need to understand that process improvement is a big effort and they need to give the projects time to succeed,” says Rob Ronnenberg, former continuous improvement manager for Olmsted County. Adds Burke, “Ask your leaders about what they are willing to give up and what they will leave on the table if we don’t do this.”

At the department level, “You need to make the automation and online forms simple so that departments will see how the new processes make their work easier,” says Nault. “This is especially important for departments that rarely use a process and so don’t know where to start or what paperwork they need.”

At the employee level, it’s essential to address fears about change. Will I lose my job? What if the new process only makes things worse? These are some of the questions that employees have when faced with any kind of change in the “what” and the “how” of their work. “We made sure employees understood their hours wouldn’t be reduced and there wouldn’t be layoffs because of the time savings gained from the new processes,” says Rolon.

Making It Possible to Really Do More with Less
The next few years can be a vibrant time of transformation for governments as they adopt new technologies and processes for doing more work with static or slow-growing staff levels. “I see workflow automation as a huge and ongoing but rewarding effort because there are so many processes that can be made better and there is no end to what improvements can be accomplished,” says Burke.

Endnotes
The Center for Digital Government, a division of e.Republic, is a national research and advisory institute on information technology policies and best practices in state and local government. Through its diverse and dynamic programs and services, the Center provides public and private sector leaders with decision support, knowledge and opportunities to help them effectively incorporate new technologies in the 21st century. www.centerdigitalgov.com

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