Still Useful After All These Years?

Many legacy ERP systems are still in use, but can no longer meet the needs of today’s government operations and services.

- Legacy systems are a costly liability for state and local governments.
- Forty-five percent of state CIOs say they spend more than 80 percent of their budgets maintaining existing systems.
- Government agencies are realizing the value of the cloud, particularly for core business applications.

Read this white paper to find out how government agencies are leveraging the cloud to reduce costs and implement a modern, secure platform for delivering IT services.
An uncomfortable truth in many government organizations today is that core business and operational applications run on systems a generation (or two) behind current technologies. These legacy systems are costing governments and taxpayers a bundle. According to a report from the National Association of State Chief Information Officers (NASCIO) and Infosys Public Services, 45 percent of state CIOs say more than 80 percent of their budgets are spent maintaining existing systems. These expenditures are expected to increase, with the U.S. Office of Personnel Management estimating a 10 to 15 percent rise in costs as knowledgeable employees retire.

The growing expense of legacy systems comes as government IT departments deal with continued budget and staffing constraints while trying to meet the demand for better applications, more data and new IT services. One step for addressing these challenges is to consider replacing legacy systems with cloud-based, Software-as-a-Service (SaaS) solutions.

State and local governments are now following the private sector to the cloud, based on a better understanding of the advantages of using external solutions compared to maintaining on-premises legacy systems. In many cases, existing systems can’t accommodate increasing workloads, changing citizen expectations and more stringent legal mandates. These systems may also be reaching the limits of scalability for users, processes and transactions.

The move from legacy to the cloud is particularly noticeable for enterprise resource planning (ERP) applications. The market research firm Gartner predicts 30 percent of service-centric private companies will move most ERP applications to the cloud by 2018, indicating a new direction for service-driven government agencies.

Replacing legacy systems with cloud solutions brings numerous benefits if it is done strategically. A solid migration strategy is particularly important for ERP systems, including core financial and human resources (HR) applications. This white paper will explain how moving key applications to the cloud can reduce costs; provide a modern, more secure platform for delivering IT services; offer new career opportunities to IT employees; and deliver real-time, actionable data.

Legacy Software: When Maintenance is No Longer an Option

Legacy business applications have reached the breaking point in many state and local government agencies for several reasons.

No vendor support for aging hardware and software
Legacy systems rely on decades-old client/server and mainframe technologies the vendor may no longer support. In these cases, agencies must devote internal resources or hire consultants to keep the systems working. There’s also the risk of disruption when aging hardware stops functioning properly and can’t be repaired or replaced.

“We reached the stage where some of our legacy systems were bound to fail, which would mean major costs to the city. In other cases, we simply weren’t able to maintain the existing systems,” says Rosa Akhtarkhavari, CIO for the city of Orlando.

Security vulnerabilities
Certain cybersecurity attacks, such as advanced persistent threats, specifically target legacy applications. Security measures in legacy systems can be inadequate and updated protections may take a long time to implement, leaving systems vulnerable.

Lack of knowledgeable employees
The COBOL programmers and C++ developers familiar with legacy systems are rapidly retiring and difficult to replace. Additionally, IT staff who must spend time keeping older applications running have fewer hours available to develop new services.

Antiquated user interfaces
The technologies of today — smartphones, tablets, mobile apps and Web email — are intuitive and have dramatically changed user expectations. The confusing navigation and complicated features of legacy applications may cause users to rebel and develop workarounds that introduce security risks or hinder workflow.

Older systems also aren’t keeping pace with online trends. Collaborative workspaces for managing projects, approving expense reports or sharing operational data are commonplace, and help employees be productive from any
location. Governments need these Web-friendly capabilities as much as their private sector counterparts.

**Inefficient services**

Government IT departments face pressure from all stakeholders to follow the private sector in adopting a “digital first” approach for better service delivery. Legacy systems simply can’t support this model. For example, getting information from a legacy application typically means requesting a report from IT, which can take days or weeks to deliver. In an era of higher expectations for government accountability, this time delay and lack of dynamic information access are no longer acceptable.

**Why Consider Cloud Solutions?**

Over the past few years, cloud computing has changed the game for IT organizations worldwide.

In the cloud model, application software is hosted on a provider’s shared infrastructure, with access over an Internet connection. The provider delivers access to the software with fast, on-demand provisioning of new users, optimized performance, strong security and frequent application updates.

Once implemented, applications in the cloud can be much easier to use and more affordable. Governments no longer have the hassle of updating infrastructure, maintaining security protections, buying more storage and servers, configuring and maintaining the software, and operating a help desk. Instead of being on call 24/7 to troubleshoot application issues, IT can work on strategic projects that improve operations and constituent services.

Yet even with these benefits, moving to the cloud for a core IT system is not always a simple decision. If an agency has been using a legacy system for 15 or 20 years, change doesn’t come easy. However, the wealth of available cloud solutions means agencies will likely find a suitable replacement for many of their legacy applications.

**How Moving ERP to the Cloud Changes Government**

Given their broad reach within an organization, moving ERP applications to the cloud enables an agency to operate more like a private enterprise. As one example, online financial management helps track funding, spending, transactions, approvals and compliance initiatives more efficiently in one unified system, saving decision-makers time and enabling sophisticated business intelligence. HR applications in the cloud improve talent development programs and provide an array of easily accessible, self-service tools for employees, such as comprehensive benefits administration and online payroll and tax data.

Cloud-based ERP solutions offer many additional benefits to government organizations.

**Can governments afford to wait?**

Almost half of state CIOs say more than 80% of their budgets are spent maintaining existing systems.

Legacy system maintenance costs will rise 10% to 15% as knowledgeable employees retire.

Gartner predicts 30% of service-centric private companies will move most ERP applications to the cloud by 2018.
Cost savings for leaner government

The capital and operating cost savings from cloud software help governments invest in IT improvements, especially for public-facing services. These savings come from a subscription pricing model, which reduces capital expenses for internal infrastructure and the operational costs associated with staff to support the system.

Improved productivity

Because the software has a modern and intuitive interface, far less time is needed for training. Employees can be more productive and quickly exchange information.

Easier application integration

Best-in-class cloud software includes comprehensive integration tools that make it easy to connect to existing applications. This integration capability is essential for delivering a true business solution, not just a technology solution. “Cloud solutions allow me to help expand the county’s technology portfolio at a low cost point and deliver more services. The IT organization can be seen as highly responsive to our departments’ needs by leveraging the cloud,” said Linda Gerull, IT director for Pierce County, Wash., in an interview with Public CIO.7

Modern platform

Organizations receive automatic upgrades to the latest software and all the minor updates and security patches in between, with minimal effort. Because everyone always uses the latest version, the SaaS provider can spend less time on support and more time developing new application features.

Opportunities for IT employees

Time previously spent by IT employees on maintaining legacy applications can instead be used to develop new applications with modern tools. For example, the Oregon Health Authority found its employees were eager to learn new technical and management skills. The agency drew staff from across the IT department when restructuring roles for its new application environment.6

Real-time, actionable data

Employees can extract and share data and conduct analyses in a cloud-based finance or HR application without waiting for IT to develop a special report. Detailed reports are available in minutes, giving employees the right information to improve processes or services.

Organizational visibility and standardization

With cloud-based financial and HR applications, users go to one place to retrieve data and conduct transactions, instead of combining manual and automated processes. Senior leaders also have a unified view of financial and resource statuses across all departments or within a specific function. “As new systems replace our legacy systems, and we obtain the data and analytics, we will drive progress. I always say that information is power, so the more information you have and the more you tie it together, the more informed your decisions will be,” said Akhtarkhavari.8

Cloud ERP Solutions in Action

Three local governments offer helpful lessons on replacing legacy systems with cloud solutions for finance and HR applications.

Pierce County Adopts a “Cloud First” Strategy

Since 2010, Pierce County, Wash., has moved core financial, HR, payroll and benefits applications from legacy systems to the cloud and realized significant cost savings as a result. A return on investment (ROI) analysis for the HR solution showed a $100,000 reduction in annual operating expense as well as a $300,000 yearly benefit from streamlining processes such as onboarding new hires and approving leave requests.

Using cloud-based solutions for core ERP applications also allows the IT department to optimize its work in two ways. First, some of the county’s older data centers already operate at maximum levels. By moving applications to the cloud, Pierce County avoids the large capital and operating expenses of building new data center facilities.

“With the cloud, we have implemented complex systems in just three months. The vendors are becoming extremely mature in helping us activate cloud applications as quickly as possible with their assistance for training, implementation processes and data conversions.”

- Linda Gerull, IT Director, Pierce County, Wash.
Second, cloud services help the county implement new applications faster. In the past, Pierce County custom developed its own applications, meaning implementation could take as long as a year. “With the cloud, we have implemented complex systems in just three months,” said Gerull. “The vendors are becoming extremely mature in helping us activate cloud applications as quickly as possible with their assistance for training, implementation processes and data conversions.”

City of Orlando Successfully Transitions to Cloud

The city of Orlando began its cloud transition by migrating to a cloud email service. “Taking email to the cloud first was very helpful because people saw the sky didn’t fall,” said Orlando CIO Akhtarkhavari.

The next step was migrating financial and HR systems. City leaders focused on change management and user communication about what to expect. “People don’t like surprises,” said Akhtarkhavari. “We focused on what the technology change would mean to the users’ work and how they and the city would benefit.”

Redefining IT in San Mateo County

In 2012, more than 80 percent of applications managed by the central IT department for San Mateo County, Calif., were considered legacy systems. This fact was a particular concern for CIO Jon Walton because the county was losing the knowledge necessary to maintain the systems as IT employees retired. “If we don’t have a clear path for staff support of an application, that puts our ability to operate at risk,” said Walton.9

Today, the situation has reversed, with three-quarters of central IT applications operating on an SaaS model. The remaining applications are maintained internally because of cost considerations or the inability to find an acceptable SaaS alternative. Developers’ jobs have also evolved from performing maintenance to focusing on new development tasks. For example, developers in the San Mateo IT department work to integrate the cloud-based finance and HR applications with more than 80 other county systems.

“Most of the time we can adapt the business processes to fit any changes needed for the cloud model,” said Walton. However, he notes the importance of verifying a potential cloud solution has the flexibility to account for differences in local laws, union agreements, federal regulations and other business requirements.

One of the most important benefits San Mateo County realized is an improved position for business continuity. The county previously did not have a backup site for their legacy systems. With a cloud solution, the vendor maintains backup servers, software and data in a standby data center, ready to take over immediately if there is a problem in the primary data center.

Getting Started in the Cloud

While the cloud may seem “simple,” choosing which legacy applications to migrate requires even closer relationships between IT and agency or department heads. “The first thing to evaluate is the readiness of your organization to even consider cloud as an option,” said Walton. “If the user community at the executive level isn’t ready, a cloud proposal won’t go anywhere, no matter how good the new technology solution.”

Pierce County uses a prioritization process to choose cloud migration projects, based on expected ROI and other benefits for business operations and service delivery to the community. “This process helps us make better decisions about allocating our technology budgets and eliminates the sense of technology ‘haves’ and ‘have nots’,” said Gerull.

The city of Orlando IT department creates steering committees and designates staff to work in partnership with business departments on each IT project. A two-page summary makes it easy for all stakeholders to understand the project’s business case.

San Mateo’s Walton notes that it’s also important to make a thorough needs assessment and carefully define the requirements for a new solution. This work will allow a fair comparison of the total cost of ownership and pros and cons for whatever form the new solution might take, whether on-premises, in the cloud or even keeping the legacy system.

When a Cloud Portends a Brighter Future

Moving from proven, long-established systems to any new technology can raise concerns and resistance both within and outside of the IT department. But those concerns can be alleviated when the move brings improvements in cost savings, work processes and service delivery.

Pierce County’s Gerull notes moving to the cloud involves a learning curve, but because many legacy systems have reached end of life, “It’s not a question of if it should be done, but ‘get it done.’”
Evaluating Cloud Solutions for Finance and HR Systems

✓ **Application availability**
The vendor should be willing to specify a set of service-level agreements (SLAs) for application uptime and availability. Explore the methods and processes followed by the cloud vendor to ensure its application will meet the availability level specified in the SLA.

✓ **Configurability**
The application should be configurable to meet the varied needs of individual departments or groups within the agency. Also important is the ability to customize the new application so it can be integrated successfully with existing systems and work processes.

✓ **Security**
Verify the provider’s security measures encompass the data, application and network levels as well as physical access to data centers. Additionally, verify the provider complies with relevant security laws and regulations, including applicable federal security standards.

✓ **Data access**
The cloud application should limit data access and modification only to authorized users, with user permissions controlled by the agency.

✓ **User interface**
Check the application’s interface design for impact on training needs, efficiency of routine work activities and the user experience on mobile devices.

✓ **Analytics**
Evaluate the analytics tools and capabilities included in the SaaS solution. Determine whether application data is collected and analyzed in real time and whether non-IT users can perform selected analysis and reporting tasks.

✓ **Developer community**
Review the vendor’s online community resources for developers such as application programming interfaces (APIs), services documentation, best practices, implementation examples and online support forums.

✓ **Government requirements**
The system should support unique government requirements such as grant and fund management and specific workplace regulations.
FORWARD-THINKING STATE AND LOCAL GOVERNMENTS

understand cloud-based applications can speed deployment, minimize complexity, reduce the IT burden and cut costs. Finance and HR processes delivered in the cloud allow organizations to immediately eliminate visible costs (e.g., installation and labor), as well as hidden costs (e.g., indirect labor, non-labor, maintenance) associated with systems integration, data center operation, software updates and other vital functions. In addition, a unified platform provides a clear, single version of the truth, which greatly decreases any potential compliance risks for the organization. With the solution offered as a subscription model, organizations pay on a month-to-month or yearly basis without a large, upfront expenditure, significantly speeding the time to ROI.

Workday’s cloud-based application brings disparate finance and HR systems into a single, unified core while allowing organizations to maintain complete control over data. By providing a single view across every function of finance and HR (financial management, grants management, spend management, human capital management, talent management and payroll), the Workday application enables government finance and HR teams to not only slash costs, but also organize data into a useful, meaningful format that puts actionable information at users’ fingertips.

The bottom line: With timely, accurate information and streamlined processes, government organizations can make better decisions and free up employees to focus on higher-value processes.

Workday meets critical requirements for cloud applications:

✓ True multi-tenancy ensures everyone is using the same software release
✓ Regularly delivered, vendor-managed updates — at no additional cost
✓ Seamless integration, on demand, with internal and third-party systems
✓ Business-driven configurability, with more than 300 built-in best practice business processes
✓ World-class data centers to ensure data is physically and digitally secure 24/7
✓ High-performance, sustainable IT infrastructure to support any size organization
✓ Predictable TCO model
✓ Rapid deployment

To learn more about unified finance and HR and how Workday can help state and local governments reduce costs, increase productivity and improve decision-making, visit www.workday.com/gov.
Endnotes

2. GCN.com, “What’s worse: Living with legacy systems or replacing them?” https://gcn.com/Blogs/CyberEye/2015/06/Legacy-systems.aspx
7. Public CIO interview with Linda Gerull conducted March 15, 2013

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