

→ Cloud Computing

Oracle Cloud Services: New Possibilities for Government

Modern Cloud Options Empower Agency Missions

gencies at every
level of government
are awakening to
the promise of
cloud computing.
While "the cloud" has been
around for nearly a decade, the
opportunity to deliver services on
par with the most sophisticated
commercial experiences, paired
with requirements to streamline
processes and promote new levels
of citizen engagement, are pressing
public sector leaders to move fast.

Moving applications and services to the cloud can help agencies achieve their needs. But what kind of cloud? How do they get there? While some organizations are moving cautiously due to concerns with security implementation or purchasing, many others are moving headlong toward this rapidly evolving model.

For example, federal agencies spent more than \$2 billion on cloud services last year alone. And NASCIO's State CIO Top Ten ranks cloud services as the second most important priority for state governments, just below security.

While on-premises software, platforms and infrastructure remain valuable, cloud-based solutions help agencies innovate in ways that can truly transform their interactions with citizens and employees alike. Why? Cloud solutions are less expensive, more scalable, and

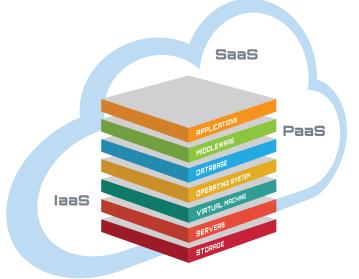
promote faster implementation of new services.

Innovation is one of the most important benefits of moving applications, processes and infrastructure to the cloud. Instead of devoting most of their time maintaining existing systems, IT staff can focus on delivering their agency's mission.

There are numerous reasons for adopting the cloud model, but it's not always the right choice for every situation. For most agencies, the best option is choosing which applications, services and processes are the most cloud-worthy. And choice is critical. Oracle's approach to a complete cloud offers public cloud, private cloud and traditional on-premises technologies that allow organizations to pick when, where and how they go to the cloud while maintaining the interoperability of platform and infrastructure components.

COMPLETE DATACENTER IN THE CLOUD

Oracle offers
a comprehensive
and fully
integrated
stack of cloud
applications and
platform services
designed to meet
the unique security
and compliance
needs of federal,
state and local
government
organizations.



Enhanced Citizen Services

Citizens today want to be able to access information, apply for permits, pay fees, report issues and have interactive conversations with government agencies—at any time, on any device. A 2016 Forrester report found federal agencies didn't measure up to private sector industries. Few agencies, the report noted, have the type of intuitive, integrated citizen-focused service framework they need.

But there are success stories.
Government leaders know improving

digital services is critical, and they are taking meaningful steps toward enhancing constituent/government interactions. Cloud sits at the center¹ of these efforts: Social media and messenger apps are often incorporated into digital services, optimizing service delivery and improving customer communications across a variety of channels.

The San Francisco Fire Department, for example, uses **Oracle Social Cloud** to communicate with citizens on Twitter and Facebook. The department consistently delivers vital information during disasters and reassures citizens when events are resolved. It also uses the Social Cloud to monitor and respond to social media comments, and communicates real-time safety issues, including dangerous surf conditions and rip tides.

Digital communication means more than just social media.
One state government uses the Oracle Policy Automation Cloud service to help entrepreneurs launch a new business through a decision tree of questions. The service guides users through the process of opening a new business and directs them to relevant information depending on the business category and legal structure.

Artificial Intelligence (AI) is already changing the way government and citizens interact. New AI-enabled "chatbots" help move citizens along the decision tree by answering a series of logical questions. These messaging apps are integrated with existing citizen engagement platforms, allowing users to learn how to open a business, inquire about social benefits, or obtain other government services.

Cloud technology can provide agencies with an on-ramp to

COMPREHENSIVE CLOUD PLATFORM FOR GOVERNMENT

Oracle offers government a complete cloud vision with the broadest portfolio of cloud solutions available. Agencies are empowered to:

► LEAD THE TRANSFORMATION OF GOVERNMENT

The Oracle Cloud allows you to nimbly create modern services: Streamline back-office processes, improve employee effectiveness, and create new levels of citizen engagement.

► INTEGRATE CLOUD WITH EXISTING MISSION-CRITICAL IT SYSTEMS

Optimize your IT organization by running workloads where they run best — on-premises or in the cloud. Integrate business processes across these environments and easily migrate workloads between them.

▶ ACCELERATE AGENCY APPLICATION INNOVATION

Enjoy rapid-application development with easy-to-use, open source tools and instant cloud access. Your team can focus on creating innovative services with world-class automation in a cloud built for maximum security.

For more information: cloud.oracle.com/public-sector

improving customer service. The Kauai Department of Water, for example, recently used the **Oracle Service Cloud and Policy Automation Cloud**to help customers submit service requests online or via a mobile device.

"Cloud-based solutions are also ideal for citizen-facing issues requiring cross-agency collaboration," says Franco Amalfi, director of strategic government programs at **Oracle**. Using Platformas-a-Service (PaaS), agencies can more easily build processes and define steps to include information-sharing among agencies, eliminating siloed data sources.

Modernizing the Government Back Office

Whether it's improving the procurement process, automating the hiring process, or managing financials, agencies are looking for ways to

modernize and optimize critical internal operations. While on-premises ERP and Enterprise Performance Management (EPM) solutions can do the job, there are real benefits to using cloud-based services. Regular upgrades that come along with cloud services can improve the overall performance and security of the software, and often adds new features and functionality that would take months to test and implement on an on-premises system. Mobile solutions, analytics and social media applications are easier and faster to implement in the cloud.

Financial systems running in the cloud can benefit every government institution, no matter what the size or mission. At the Fox River Water Reclamation Authority in Elgin, Ill., finance manager Nazer Uddin recognized his outdated system had to change; he had no ability to



quickly add new customers, and staff routinely printed seven copies of an invoice for approvals. In just 16 weeks, Nazer and his team were able to move to **Oracle ERP Cloud.** "Entering data has become so easy now," he said. "And now, managers can approve requisitions on their phone."

HR systems are another area that drastically need an overhaul. Government is facing a crisis concerning talent recruitment and retention as the baby boom generation retires from public service. And some government agencies have received bad publicity about the lengthy recruiting cycle, with younger talent favoring private industry over public. Flexible, integrated systems such as Oracle Human Capital Management (HCM) Cloud can help agencies more effectively recruit and process job candidates, as the City of Chicago (sidebar) learned. These systems offer features that this emerging workforce is accustomed to, such as applying for a job on a mobile device.

Although many established systems like PeopleSoft work

Service Cloud Amplifies Citizen Voices

The City of Fort Wayne, Indiana, has connected 23 essential agencies directly to its citizens by launching a 311 Citizen Call Center using Oracle Service Cloud. This "front door" to city services allows residents, business owners and visitors easy access to submit service requests and get information via an integrated mobile enabled web and telephone system. Citizens can use their mobile devices to report a pothole, a malfunctioning streetlight or an abandoned vehicle. Since its inception ten years ago, the 311 Citizen Call Center has handled 1.5 million calls. Today, the City of Fort Wayne uses Oracle Service Cloud Analytics and Reporting to provide a graphical "Citywide Scorecard" to department heads, supervisors, elected officials and community leaders. This information helps Fort Wayne continuously improve departmental performance and citizen satisfaction.

learning algorithms. "In the past, HR software would simply parse through the resumes looking for keywords" said Amalfi. "Now, using machine learning models, candidates are classified through a contextual examination of the entire resume."

Speed and innovation are among the most important reasons to consider cloud options for backoffice functions. Unlike on-premises Threlfall, Oracle's senior director for strategic modernization. "With the cloud, as soon as we push out new features and modules, you're current and poised to innovate."

Fewer Patches, More Productivity

Government IT managers have their hands full. Innovation falls to the bottom of a to-do list that includes patching and updating applications and hardware, compliance with evolving policy guidelines and non-stop security demands. A CIO Executive Council report found the majority of IT departments spend so much time on day-to-day tasks they don't have time to create innovative IT solutions.

By offloading non-core duties to the cloud—tasks like keeping software and infrastructure patched, secure and up to date—IT personnel can spend their time focused on developing modern services.

Using a cloud-based infrastructure, IT staff can quickly spin up a development environment and test a process or application. If it works, it can be moved into production quick-

Standards and Certifications

Alignment with standards and guidelines related to data security in the cloud is critical for government agencies. Depending on your needs, you should ask your prospective cloud vendor about these certifications: FedRAMP, HIPAA, HMG Cloud Security Principles Framework, PSN Compliance, NIST 800-54, CJIS, and commercial standards including SSAE SOC 1 and SOC 2, ISO 27001 and PCI.

extraordinarily well on-premises or even simply "lifted and shifted" to the cloud, often cloud native systems have some built-in advantages. For instance, Oracle is now embedding artificial intelligence into many of its solutions, incorporating machine solutions, which are customizable and generally upgraded every two to five years, cloud-based solutions are updated about twice a year.

"As soon as you customize your system, innovation tends to come to a screeching halt," says Simon ly, enabling the agency to ramp up a pilot application. If it doesn't work, it only takes a few minutes to abandon the experiment. If an agency's field staff needs an application to quickly alert a population about a Zika outbreak, IT can quickly build, test, and deploy a mobile app while also alerting communities through other digital channels.

The cloud also provides operational agility to manage across a hybrid mix of cloud options (public, private and virtual private) as well as on-premises data centers. With the right cloud-based tools, agencies can manage all this through a single console. **Oracle Management Cloud**², for example, helps IT staff manage not only Oracle clouds, but clouds from other vendors. It combines machine learning, anomaly analysis, log and predictive analytics and IT analytics to manage workloads.

Incorporating cloud technology to improve IT management can also save agencies real money, as the state of Texas demonstrated. The state's Dept. of Information Resources developed a private community cloud pilot program for IT infrastructure services available to all state agencies. With this service, agencies can deploy largescale platforms and services they might not otherwise be able to afford. After the pilot, state officials estimated that agencies had reduced IT infrastructure costs by up to 35 percent, and were able to access large-scale frames and platforms that were previously too costly.

"One of the things we've tried to do is avoid the consideration of a cloud offering as a product and instead look at the cloud characteristics," said Texas CIO Todd Kimbriel. "This means thinking about flexibility in metered

Finding Top Talent in the Windy City

The City of Chicago reviews more than 300,000 applications every year for government positions. This manual process typically took months. By moving the process to **Oracle Human Capital Management (HCM) Cloud**, the city has reduced the number of candidates requiring manual screening by 75 percent, cut the time to hire from a year to 90 days, and saved millions of dollars annually in recruitment costs. Oracle's cloud-based solution also automates hiring workflows, ranks top candidates automatically, and simplifies the HR audit process to help the city meet its privacy and information security requirements.

billing, self-service orchestration, handling peak demand through elasticity, and ease of access."

Mix and Match Your Clouds

A combination of on-premises and cloud-based data and apps often makes the most sense. An agency might keep critical, custom-written legacy applications on-premises, for example, while using ERP and other core business applications in the cloud.

Agencies also can choose to use the cloud for specific situations requiring greater flexibility, such as cloud bursting for spikes in usage. "Often, the best choice is to build for the steady state on-premises and burst into the cloud. It's a matter of running the numbers and picking and choosing," says William Sanders, director of cloud platform strategic programs for Oracle Public Sector."

In addition, many government agencies simply cannot keep up with the specialized staffing requirements for certain kinds of IT. "Agencies can offload work that's not in their sweet spot and send it off to vendors," Sanders said.

The ability to choose what makes sense financially and practically gives agencies the greatest possible flexibility. The best way to do that is by choosing a vendor with a broad set of cloud services that also understands how to move legacy applications to the cloud. Many cloud vendors are specialized firms that offer highly targeted Software-as-a-Service (SaaS) components, with no real knowledge of how to integrate with existing systems.

Ideally, the vendor's cloud services will be fully integrated at every level: SaaS, PaaS, and Infrastructure-as-a-Service (IaaS). With an integrated cloud ecosystem, agencies can reap the full benefits of using the cloud while avoiding the perpetual upgrade cycle that occurs with multiple cloud vendors in the mix.

"Cloud is really about how workloads can be delivered to our customers, not about the technology," Kimbriel said. "As a result, we really wanted a solution that takes into consideration technology, processes and people and how combining the three could help drive the mission."

For more information, please visit cloud.oracle.com/public-sector

