



A Cloud Roadmap: From Implementation to Innovation

How a Complete Cloud Offers Agencies a Modern Approach to Cutting-Edge Service Delivery

The government IT infrastructure must evolve. The traditional approach to delivering IT services is proving incapable of keeping up with either the growing complexity of the IT enterprise or the increasing demand for innovation. This pressure to provide an infrastructure that is more manageable, scalable and flexible is pushing government agencies to accelerate their adoption of cloud solutions.

Until recently, government agencies have been slow to move to the cloud. In 2011, the Office of Management and Budget (OMB) issued its “Cloud First” policy, which directed agencies to adapt their IT strategies to take full advantage of the cloud. Yet a September 2014 report from the U.S. Government Accountability Office found that at seven major agencies, investments in the cloud accounted for a mere two percent of IT budgets. Collectively, the agencies consider cloud services for only 33 percent of their IT investments.

However, many government IT executives have not fully understood the benefits of the cloud. In the early days, most discussions about the cloud focused on the potential to lower the total cost of ownership of the IT infrastructure. Such savings are real, as noted by the Government Accountability Office (GAO) report, but they are only part of the story.

In 2014, OMB officials stepped up their efforts to explain the full benefits of the cloud. Innovation emerged as a key selling

point. In a traditional IT environment, the process for provisioning server, storage and network systems is cumbersome, making it difficult to field new services in a timely fashion. OMB envisions agencies turning their data centers into “cloud ecosystems,” with the ability to deploy infrastructure on demand to support evolving requirements.

Many agencies already have discovered the benefits of the cloud when it comes to supporting their mobile users. Cloud-based solutions make it possible to extend applications and data to mobile devices without compromising on performance. Gartner has predicted that 50 percent of mobile application development will be cloud-based by 2017. Likewise, data-optimized cloud platforms make big data applications more readily available to a broad user base, according to OMB.

Other popular solution areas include employee collaboration, workforce management, and customer or constituent relationship management.

However, to achieve these benefits, government agencies need to develop an enterprise approach to cloud that provides them with a range of solutions that enables them to address existing infrastructure requirements while positioning them to meet unanticipated future needs.

The IT-as-a-Service Paradigm

An enterprise cloud strategy is not just about new technology. It is also about a

new mindset.

In its overview of cloud computing, the federal CIO Council highlights the increased flexibility that comes with cloud, including rapid scalability, on-demand self-service, resource pooling, and faster deployment of applications. Taken together, these capabilities make it possible to develop an “as-a-Service” approach to IT, enabling users an agency to tap into a range of IT services on an as-needed basis, scaling up when demand peaks and scaling back when demand recedes.

Cloud service providers offer three basic categories of cloud-based services:

- Software-as-a-Service (SaaS), which offers access to key applications;
- Platform-as-a-Service (PaaS), which provides the underlying IT services for those applications;
- Infrastructure-as-a-Service (IaaS), which delivers compute, storage and related resources.

But such capabilities, in and of themselves, have limited value until agencies adopt an “as-a-service” mindset. That is, agency IT leaders need to develop the policies and processes that encourage and support the development of innovative cloud-based solutions.

Too often, agencies take a piecemeal approach to the cloud, usually beginning with a SaaS initiative, then perhaps expanding to PaaS and/or IaaS, with the different pieces acquired from different

vendors and cobbled together as well as possible. In the end, agencies end up delivering a loose affiliation of IT services and asking users to make-do, with everyone paying the price in terms of reduced flexibility, manageability and cost-savings.

In part, these problems have developed because of the piecemeal-like development of the cloud industry. Over the years, a plethora of vendors have popped up offering one service or another, with little thought given to how customers would integrate those services. Perhaps that worked fine in the early days, when most agencies were just piloting individual services, but those days are past.

Today, agencies need to think in terms of an overarching as-a-service strategy. That strategy should incorporate SaaS, PaaS, IaaS and other emerging as-a-service offerings in such a way that users can acquire the services they need, when they need, and never have to worry about how they will work together. Such a framework enables organizations to buy or develop point solutions, but to do so with the enterprise perspective in mind.

Partnering for Success

As might be expected, the development of an as-a-Service strategy has important implications for procurement. If an organization takes a haphazard approach to partnering with vendors—either engaging multiple cloud service providers or allowing individual departments to buy applications independently—the result, simply put, will be a mess.

That's not to say that an organization should tie itself to a single cloud service provider. No one provider, no matter how extensive its portfolio, can offer best-of-breed technology to meet an organization's

every requirement. The key is to take a procurement approach that offers both stability and diversity in cloud offerings.

With stability in mind, an organization should look for a cloud service provider who provides the foundational components of an as-a-service strategy—that is, SaaS, PaaS and IaaS—and who has a vested interest in ensuring that those components work together.

“The value of going with a single cloud provider is that it puts that burden on the provider to make sure that your cloud solutions are connected, are talking to each other, and that the integration is not disrupted during the update cycles,” said Aaron Erickson, director of Government Innovation at Oracle.

With diversity in mind, the organization should look for a provider who takes an open solutions approach that eases the integration of applications and data from third-party service providers or in-house developers. Stability, in a sense, supports diversity. If application developers have a clear understanding of the underlying cloud services, they can focus their energies not on integration but on innovation.

Finally, public sector organizations need a partner who understands the particularities of their environments. Much of the growth in the cloud industry has been driven by the private sector, where organizations do not have the unique business requirements created by government policies, regulations, and missions. Agencies need a partner who takes those requirements into consideration when developing its solutions.

Oracle recognizes the unique business requirements of public sector organizations and is leveraging decades

of industry knowledge and experience in delivering cloud solutions, says Sarah Jackson, vice president, Oracle sales engineering.

“Just like we have done with our other product lines, we invite customers to participate in hands-on validation testing activities and provide opportunities for them to have input into future releases and functional roadmaps,” she said.

Oracle Government Cloud: A Complete Solution

Oracle's cloud strategy positions the company as a strong partner for government agencies. The company's global cloud infrastructure includes 17 data centers supporting a comprehensive suite of SaaS, PaaS and IaaS solutions. Today Oracle hosts more than 10,000 cloud customer organizations with more than 25 million daily cloud users. As part of that broader offering, the Oracle Government Cloud provides a series of data centers built specifically to address the rigorous security and compliance requirements of government agencies.

The Oracle Government Cloud provides users access to all of the traditional Oracle technology that agencies are probably already using, including its database and middleware solutions and applications for enterprise resource planning, human capital management, customer management, and project management. It is a solid choice for public sector organizations that must have the ability to deliver modern solutions to citizens and employees efficiently and quickly in order to be successful.

These offerings meet key security and operational requirements common to government agencies, including NIST 800-53 and the Federal Risk



and Authorization Management (FedRAMP) program, as well as the International Organization for Standardization (ISO) and the relevant provisions of the International Traffic in Arms Regulation (ITAR).

From a planning perspective, Oracle makes it easier for customers to migrate to the cloud via its Customer 2 Cloud program, which enables Oracle customers

to convert on-premise licenses to cloud subscriptions. This program also sends experts into the organization to help evaluate what solutions should move and includes a discussion about costs, benefits and risks to help the customer make the best decision possible.

“Oracle executives recognize that it is important to help agencies feel confident about immediate decisions, understand

the steps toward a successful transition and start thinking about possibilities for future services,” says Mark Johnson, the company’s director of Big Data and Government Cloud.

In the end, the company’s holistic approach to cloud technology, as well as its deep understanding of an agency’s needs, help set the Oracle Government Cloud apart.

Modern Cloud, Modern Government: Real-World Success Stories

More than 200 public sector institutions in North America and the United Kingdom are taking advantage of cloud services—and Oracle’s Government Cloud in particular—to improve services, reduce costs and provide the performance, security and scalability that aren’t simply nice to have but required in today’s competitive environment. Here are a few examples:

City of Chicago CHALLENGE

Review more than 200,000 annual applications for open, city-government positions while adhering to strict hiring regulations and union protocols.

SOLUTION

- Implemented Oracle HCM Cloud Service to better manage a massive volume of resume submissions—as many as 30,000 for a single position—and ensure that the city considers the best qualified candidates.
- Created an objective, auditable process around the development of referral lists and bid lists using the Oracle HCM Cloud.
- Ranked top-tier candidates automatically, based on self-reported qualifications, reducing the number of candidates recruiters must manually screen

by an average of 90 percent.

Reduced average time to fill a position from one year to 90 days and created a cost savings of several million dollars annually, thanks to the Oracle HCM Cloud Service.

Illinois Department of Revenue CHALLENGE

Implement a centralized, cloud-based, customer management system to improve customer-service performance and response quality to address ever-increasing inbound e-mail and call volumes.

SOLUTION

- Implemented Oracle Service Cloud to rapidly deliver consistent answers to questions from the public across all channels—enabling taxpayers to get the answers they need to file accurate returns and allowing IDOR to reduce its workload.
- Provided IDOR with a central repository where it can quickly and easily update or modify important tax information when issues arise or policies change, without assistance from internal IT resources.
- Utilized taxpayers’ day-to-day questions to help IDOR build more than 500 question-and-answer pairs, enabling the organization to tightly align its online

information and the needs of citizens, and making it easy for site visitors to identify specific tax-related topics. Automatically maintained a top-20 question list on the website, ensuring a significant percentage of site visitors can find their answers with a single click.

United States Air Force CHALLENGE

Maintain high-quality Air Force personnel services despite mandated resource reductions and replace legacy case- and knowledge-management systems with a more streamlined and efficient solution.

SOLUTION

- Moved many personnel programs to a new web-based, knowledge-management service, based on Oracle Service Cloud technology, helping to streamline operations. Increased monthly use of the tool to approximately 1 million hits.
- Enabled TFSC administrators and call-center agents to access record systems through the agent console, providing access to past cases and enabling agents to attain a holistic view of each customer’s complete personnel record, including pertinent dates for evaluations, promotions, and moves.



What is Oracle Government Cloud?

Secure, Innovative Cloud Computing for Government

Built for government agencies, a comprehensive, flexible, and cost-effective suite of cloud applications and technologies.

Why Oracle's Cloud Services?

450 million
job candidate records
in the HCM Cloud



19 data centers
across North America, EMEA and APAC



62 million
daily users



23 billion
daily transactions



75% of the
Fortune 100 runs
Oracle's Cloud



Most comprehensive security and compliance



standards in the industry including FedRAMP, ISO 27001, HIPAA, ISAE 3402 / SSAE 16, NIST, DIACAP, PCI, ITAR, CFR Part 11

Private, public or hybrid
– it's up to you



More than 200 public sector agencies
are already in the Oracle Cloud today

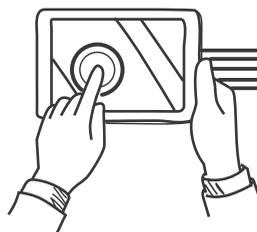


Pick One, Pick All

Infrastructure-as-a-Service (IaaS)

such as elastic compute and storage to run any workload in the cloud.

- **Rapid self-service** provisioning to spin up virtual machines in minutes. Access information and systems from anywhere



Platform-as-a-Service (PaaS)

develop rich government applications.

- **Database-as-a-Service** — easy to set up, use and manage
- **Java-as-a-Service** — rapid and agile deployment of any Java application
- **Document Cloud Service** — secure, web-based Enterprise File Sync-and-Share
- **Business Intelligence Cloud Service** — load, model, and analyze data quickly and easily

Software-as-a-Service (SaaS) provide enterprise-wide, modern cloud applications to help governments re-imagine their businesses. The best-of-breed SaaS applications in the Oracle Cloud are integrated with social, mobile, and analytic capabilities to help public sector organizations deliver the experiences citizens expect, the talent to succeed, and the agility business demands.



- **HCM Cloud** — modern HR differentiates organizations with a talent-centric and consumer-based strategy that leverages technology to provide a collaborative, insightful, engaging and mobile HR, employee and executive experience
- **ERP Cloud** — empower modern finance, procurement and project management with built in Public Sector industry capabilities
- **Enterprise Performance Management Cloud** — world class planning and reporting with the simplicity of the cloud
- **Service Cloud** — modern citizen service through unified web, social and contact center experiences
- **Sales Cloud** — mobile, collaborative, easy and intuitive tools to reach appropriate audiences to deliver on your mission
- **Marketing Cloud** — personalize every experience to increase efficiency, accuracy and service levels using cross-channel, content, and social marketing solutions with integrated data management and activation
- **Social Cloud** — enable public sector organizations to provide a better understanding and engagement with citizens and stronger collaboration and efficiencies within the workforce

Want to learn more about the Oracle Cloud? Join us at one of our Oracle Cloud Day events at a city near you and re-imagine your agency's business.

www.oracle.com/cloudday

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