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The Cloud
Opportunity

Public service agencies are searching for scale, speed, savings, and security in the cloud

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Is cloud adoption in the public sector hitting an inflection point?

Historically, public service agencies have been cautious when it comes to early adoption of new technologies. IT leaders tread a fine line between risk and innovation in their efforts to build secure digital environments to support public services. These efforts are often further constrained by tight budgets and lingering technology debt.

Despite these obstacles, public service agencies are embracing the cloud at an accelerating rate. They're taking the time to vet the cost and security of these options and found that cloud solution providers offer a secure and agile alternative to on-premise options.

A 2019 global Accenture survey found that 70 percent of public service executives saw migration to cloud as critical or very important to the transformation of their organizations' core models and systems in the next three years.[1]

These executives want to capture the benefits of lower infrastructure costs and greater flexibility and see cloud as a major enabler for future service delivery models. Consumption can be dialed up and down on demand, allowing cost-conscious agencies to monitor spend closely, while enabling creation of more data-centric services. This can help support better, data-driven decision making and enable a more personalized user interface.

The interest in public cloud solutions is already generating significant investment. Data from International Data Corporation (IDC) shows global public cloud spending is expected to more than double in 2019-2023,[2] to nearly $500 billion.

This rate of spending may be further accelerated as agencies scramble to meet citizens' needs for public services, delivered via safe, low- or no-contact solutions in a post-COVID-19 climate.

The health crisis threw the latent technical shortcomings of public service agencies into a harsh spotlight, as COVID-19 heightened awareness of the role of public services in our daily lives.[3]

In the US, for example, while commercial sites such as Amazon rapidly adapted to fulfil soaring numbers of orders and more exacting delivery requirements, state unemployment sites across the country struggled to accommodate the surge in activity, as millions of US citizens applied for unemployment benefits, delivering a powerful reminder of the need for systems resilience, agility, adaptability, and scalability.

Welcome to **cloud**

The benefits of cloud for public service agencies are undisputed: cost savings, risk mitigation, flexibility, and speed. But, for many agencies, the transition to cloud is not straightforward; implementing systemic change is complicated, and the cost of failure is high.

Government IT projects are often hamstrung by disconnected stakeholders, fluctuating budgets, shifting regulatory frameworks, strict data privacy and data sovereignty rules, and challenges in measuring

ROI in a public sector context. To overcome such issues, cloud projects require thoughtful planning, support from the full spectrum of stakeholders, and a culture of collaboration. In spite of these caveats, there has never been a more auspicious time to take these steps. Demand from citizens is clear, new operating models are being adopted, and governments are providing relief and incentive schemes to help catalyze the transformation of public services.

Each public service agency should start by defining, in its own terms, the value of moving to cloud and mapping out the key steps to success.

Five steps to cloud success

There are five essential elements to capturing the full, long-term value of cloud:

01

Migrate and scale up.
Transfer your workloads to cloud rapidly, securely, and confidently by selecting the right infrastructure for your needs.

02

Start with the low-hanging fruit.
Choose projects that can deliver the biggest impact to the most users in the shortest time.

03

Get the most from the hyperscalers.
Put the innovation and investments being made by the big cloud providers to work for your organization.

04

Innovate and grow.
Use cloud as a digital transformation lever, creating a sandbox for rapid experimentation, innovation, and new operating models.

05

Manage and optimize.
Adopt new ways of working[4] that can help push your cloud estate to ever higher levels of performance.

01

Migrate and scale up

Cloud is not new. Nevertheless, most public organizations are still in the early stages of their cloud journeys. For a range of different reasons—technology, security, complexity, legacy constraints, data sovereignty, workforce pushback—many workloads remain in on-premises data centers.

So how can you start scaling up your migration efforts?

First, you need to align all departments within your organization. Migration to cloud cannot be a purely IT-driven exercise. Cloud transition teams need to include stakeholders from all relevant agencies, along with security, regulatory, and financial leaders. Cross-collaborative teams can help to identify relevant risks at planning stage, and stakeholders will be better prepared to step in when obstacles arise.

Next, to avoid getting stuck in a cycle of experimentation, focus on realizing value, throughout migration and beyond. Treat cloud as a means, not an end. It's not enough to migrate X number of servers and think the job is done. A cloud strategy needs a systematic framework for delivering and measuring value to the agency and its constituents over time.

workload and to define and plan the cloud target state (including architecture, infrastructure and operating model). This is vital because, from a government perspective, migration can look like a lot of effort for little return. You need to clarify the value in each application, justifying how the agency and its citizens can benefit from the migration.

Consider the Austrian government and the Austrian Red Cross. When COVID-19 hit, the two worked together in an example of a swiftly organized collaboration to provide insight into identifying, tracing, alerting, and isolating people who had been exposed to infection. Such contact-tracing solutions had been effective in containing the spread of past pandemics, but were regarded as time-inefficient and labor-intensive.

The Austrian Red Cross believed that smartphone technology could help it respond more rapidly to new outbreaks, by tracing past contacts of a patient through an app. The "Stopp Corona" app[5] was designed to log contacts anonymously between mobile phones, creating a contact history for each user, to help break infection chains by sending early notifications to potentially exposed people. Development progressed quickly, starting with a design thinking workshop to capture key requirements and feasibility, going live with a minimum viable product (MVP) in less than three weeks—a fraction of the time it normally takes to get an app of this scale and complexity up and running.

02

Start with the low-hanging fruit

Public service agencies may oversee thousands of services and databases, each of which has its own risks and requirements. Trying to move the entire system to cloud in one go is too ambitious and too risky. Instead, agencies should consider breaking these transitions up into smaller projects, and prioritizing the low-hanging fruit.

Consider which projects can deliver the biggest impact to the most users in the shortest amount of time. When making these choices, it's important to balance application complexity, legacy needs, and compliance requirements against the potential value and innovation that can be unlocked via cloud native optimization. Prioritizing the "low-hanging fruit" may allow agencies to achieve quick wins, and to implement and help improve their processes via lessons learned, so every new iteration goes a little more smoothly.

03

Get the most from the hyperscalers

With some regional variations, most public organizations may likely choose to work with at least one of the public cloud hyperscalers, such as Microsoft Azure, Amazon Web Services (AWS), or Google Cloud. They'll look to take advantage of the global reach of these providers, as well as their deep expertise and proliferation of cloud services and industry-specific solutions.

> **Getting the most out of a hyperscaler is about committing to a partnership. You want a vendor who understands the unique challenges faced by public service agencies, and the key performance indicators (KPI) that define success.**

The hyperscalers are on their own journeys of innovation, investing heavily in areas such as streamlining migration, adapting services for government clouds, and pushing out to the edge. Their expertise and global experience can help public agencies achieve rapid results that prove the value of cloud.

Take, for example, the government of India's Digital India Corporation.[6] When COVID-19 hit, as the country confronted the challenge of the pandemic, it also sought to curb the spread of rumors. To fight the so-called "infodemic", the Indian government wanted proactively to help its people find accurate information that would better prepare them for the crisis and empower them to reduce their risk of contracting the virus.

Accenture and Microsoft worked hand in hand with MyGov to equip its 1.3 billion citizens with an artificial intelligence (AI) tool that provides relevant and accurate information on the pandemic. Harnessing the capabilities of Microsoft's Power Virtual Agent low-code solution, the team moved fast and used Microsoft Azure to deploy the solution in days. The agent, referred to as MyGov Saathi (meaning "companion" in Hindi), can handle up to 300,000 users per day and 20,000 concurrent users per minute.

In the US state of California, where millions of individuals and families depend on social safety-net programs, the state is slated to complete a single, cloud-based system, California Statewide Automated Welfare System (CalSAWS),[7] to support an integrated system statewide by 2023, saving the state as much as $30 million a year when fully implemented.

California's 58 counties will count on CalSAWS when determining which citizens are eligible to receive assistance in the form of cash, food stamps, healthcare coverage, and other public benefits. The integrated eligibility and case management system and the business processes it supports are nothing short of mission-critical to the people who rely on these programs.

Accenture quickly performed a cloud proof of concept to assess potential capacity bottlenecks. The tests confirmed that the AWS cloud could host CalSAWS, but that several changes would be required to deliver the required capacity.

Such outcomes can be achieved when government agencies are willing to work collaboratively with their cloud partners, but they need to be ready and willing to capitalize on all this innovation in order to maximize results. Hyperscaler cloud providers can often offer alternative cloud solutions tailored to overcome the specific constraints on the individual customer.

For most public service agencies, the optimal way forward will be, first, to determine which data and systems are appropriate for a public cloud, and when a hybrid cloud approach may be warranted. With these decisions made, the agency should select a primary cloud vendor for mission-critical workloads, which has experience partnering with public service agencies on these transformation journeys. Working with a vendor that has navigated the complexities of a highly regulated and publicly funded IT environment can help these projects go more smoothly, and ensure that necessary attention is paid to meeting all data security rules.

Maximizing value through a Cloud Center of Excellence

By providing a single focal point for both department leaders and IT, a **Cloud Center of Excellence** (COE) can significantly help accelerate cloud adoption and maximize the value it realizes. Comprising a small team of cross-functional experts, the COE brings central governance and delivery support, helping manage the complexities of multi-cloud and preventing the confusion that can ensue if each part of the organization decides to go its own way.

What's more, with centralized expertise in hyperscaler solutions, the COE is better able to oversee delivery of the constant stream of new services released to the market. It can work closely with IT and DevOps organizations to ensure important features are prioritized and implemented on schedule, to drive the enterprise innovation agenda forward, particularly as the organization increases its cloud maturity.

The COE also has a critical "internal marketing" function, working with application owners to explain how to use new hyperscaler capabilities to their benefit, whether that is in terms of cost savings, faster development, or new customer-centered capabilities.

04

Innovate and grow

Cloud is the ideal platform for future innovation and service delivery in the public sector. It lets government teams iterate faster, safely testing prototypes on demand and collecting real-time feedback on which to base decisions about which solutions can best meet the needs of their constituents.

This agility is accelerated by connecting to an ecosystem of trusted vendors who provide access to cutting-edge technology. For example, using such services as AWS Braket or Azure Quantum provides a sandbox in which to develop and test quantum computing applications without putting critical data at risk, bypassing the need for internal investment typically required to support such initiatives.

By working with cloud hyperscalers and other service providers, public service agencies can gain the ability efficiently and cost-effectively to stand-up or scale services and environments in response to changing user needs, while reducing deployment cycle times and costs. When it all comes together, the results can be significant.

Consider Canada Mortgage and Housing Corporation (CMHC),[8] Canada's national housing agency. The organization was reliant on an outdated and siloed IT system, which featured nearly 1,000 separate software applications, many of which were customized and difficult to maintain. CMHC's leadership knew they needed to digitize their operation, and they partnered with Accenture to make it happen.

Accenture's cloud experts created a digital strategy that replaced the siloed software with an integrated set of easily updated applications built on Microsoft's Azure cloud platform. This reduced the maintenance burden and gave employees better real-time insights into clients and the housing market.

> **Digital tools replaced manual tasks, speeding up approvals and payments; and a housing data exchange platform was built to provide financial institutions with up-to-date analytics and insights into mortgages and securitization, to help them make sound decisions regarding the housing market.**

The digital transformation enabled CMHC to launch 13 government-mandated housing programs and helped to halve chronic homelessness, and fuel Canada's economy.

05

Manage and optimize

Running the IT estate is fundamentally different in cloud. The traditional model of managing capacity by purchasing and running physical hardware is no longer applicable. Instead, you must continuously manage consumption, capacity, performance and, crucially, cost. It requires a quite different skillset, as well as new operational functions.

> **This is where many cloud journeys falter. Without continually optimizing capacity (especially with legacy applications) and using cloud providers to maximize the performance/value ratio, you may quickly find costs escalating.**

Agencies have to be proactive in finding and building talent that can manage these transitions. Most public service agencies will be managing a multi-cloud environment, including a mix of SaaS, PaaS, private cloud, and on-premise solutions. This undoubtedly brings extra complexity to the tasks of management and optimization, requiring both a holistic understanding of the data environment and deep skills in the various platforms being used.

The catch? The talent required to do all this well is in short global supply. It's why many agencies choose to work with a partner, helping them to stay current with the continual release of new functions/features from the hyperscalers. It also frees teams from the burden of day-to-day cloud management so they can focus on capabilities in areas that add value directly for citizens.

Get to cloud.
Get the value.
Get ready for the future.

We're now at an inflection point for scaling cloud adoption. Cloud has proven its importance to resilient public service operations and its ability to meet the constantly evolving needs of the public.

When public service agencies use cloud to build services and solutions that accommodate community needs, it gives citizens faster access to vital, current information and resources. This, in turn, helps to increase the perceived value of these agencies and the services they provide. Such transitions require time and the support of trusted partners, but the outcomes are well worth the effort.

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