

The state of California

A continuing cloud success story



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The state of California is a leader in government cloud adoption. It should come as no surprise that the home of Silicon Valley has shown a willingness to embrace cloud and all the operational and cost advantages it affords.

To this end, California's state government agencies have made great strides toward cloud adoption since the California Department of Technology (CDT) introduced its [Cloud First policy](#) in 2013, which requires agencies to use cloud services whenever feasible. Over the last several years, the state has moved to aggressively pursue cloud adoption. California touts a [660 percent increase](#) in the use of [Federal Risk and Authorization Management Program \(FedRAMP\)](#) high and moderate infrastructure as a service (IaaS) and platform as a service (PaaS) between 2018 and 2019 alone.

This turn toward the cloud is even more impressive given the current landscape for state government cloud adoption. While nearly all commercial companies are in the cloud, state governments are still getting up to speed in terms of adoption. In fact, [in a recent NASCIO survey](#), 14 percent of state government CIOs reported having no migration strategy at all. Why the disconnect? Traditionally, even state governments that are enthusiastic about the cloud come up against a myriad of challenges to adoption, including budgeting, procurement and policy constraints, talent shortages, cultural resistance, and more.

"Among other challenges, government is notoriously risk adverse. So, when the notion of change arises, it can feel like a risk to people," says Mark Spitzer, [Amazon Web Services' \(AWS\)](#) principal sales executive for the state of California.

But in 2020, government agencies encountered a greater challenge: the coronavirus pandemic.

In a typical environment, cloud migrations are planned for months or years in advance, budgeted carefully and phased in methodically. The pandemic blew that model out of the water, making it necessary for IT teams to support entirely new ways of working and serving constituents virtually overnight. This momentum ushered in a new era for government IT, clearing hurdles and accelerating cloud adoption plans everywhere, laying a foundation that agencies can build on in the months and years to come.



The COVID-19 impact

California's cloud foundation left the state, in many respects, well positioned when the COVID-19 pandemic struck and state and local governments everywhere moved to pivot systems to support mass telework. In fact, California CIO Amy Tong [reported in a recent webinar](#) that 90 percent of the state's 200,000 employees were able to transition to telework relatively efficiently.

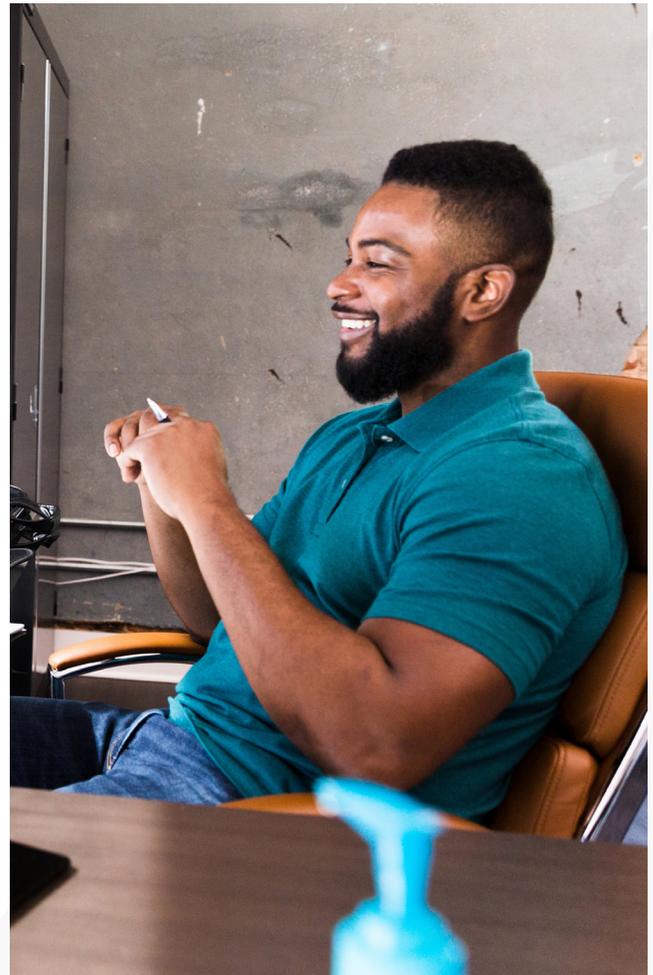
One of the most crucial aspects of this foundation wasn't necessarily the technology itself but rather an [ongoing contract with the CDT that offers AWS services](#) as part of CDT's Off-Premises Cloud Services program. By tapping into the approved offerings in this program, agencies can bypass a typical procurement cycle and quickly capitalize on secure and flexible cloud offerings.

For example, when one statewide agency faced the challenge of enabling telework for 1,200 users, the contract allowed them to leverage the AWS Cloud to meet these needs. They had previously achieved the task by handing out government-provided laptops and VPNs to employees on a case-by-case basis.



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David Pizzo, Account Manager,
AWS State and Local Government, State of California



"Because of the contract vehicle that CDT had in place, we enabled their staff to work from home without buying any hardware or having a long procurement cycle. They were able to set up an account with us and begin using it in just a matter of two or three days and without a procurement process because that had already been advanced," says David Pizzo, account manager for AWS state and local government customers for the state of California.

As a result, AWS and the agency were able to connect 80 directory services to AWS, enabling workers to remote into their desktops from their homes and access everything they needed to work productively and securely from their own personal computers. Pizzo and his team were able to work with several California agencies across the state in this way, tapping into the CDT's contract with AWS to bring telework to life via the cloud and enabling remote work for thousands of state employees in a matter of weeks, in many cases.

"This type of agility is indicative of the cloud," says Pizzo.

The promise of a more cloud-based future

Now that the pandemic has cleared many hurdles for initial cloud adoption, it's important for agencies to look ahead to how they'll continue to harness this investment to improve operations, says Hampton Sublett, western region manager for customer solutions managers at AWS. The acceleration laid the groundwork for further innovation, allowing agencies to finally deliver the capabilities and experiences that can help to meet constituents and staff where they are on their smartphones, tablets, and laptops.

"The pandemic has, in many ways, opened the eyes of California's agency and IT leaders to the speed with which they can leverage the benefits, flexibility, and adaptability of the cloud so that they can take advantage of more important services that they have yet to leverage," Sublett says.

Moreover, as employees learn to embrace the flexibility of telework and agencies have proven that a remote workforce can be just as, if not more, productive than an in-office one, it has become clear that the world of remote work isn't going away anytime soon. As the government workforce returns to the office, many will be returning to a hybrid workplace, which embraces both remote and in-office workers and holds several advantages for workers and agencies alike.

service. A statewide, cloud-based email system, [introduced in 2018](#), helped centralize correspondence across 76 California state entities into a single platform. The system has allowed for shared calendaring and shared email addresses to enable greater interdepartmental collaboration.

Furthermore, as agencies face falling tax revenue as a fallout from the pandemic, the continued move to the cloud may be even more crucial in order to defray rising IT costs amid shrinking budgets. [According to CDT](#), state and local governments can realize 30-50 percent in savings when moving to the cloud.

Case in point is the [California Statewide Automated Welfare System \(CalSAWS\)](#), the department that serves California's 58 counties in determining who is eligible to receive state assistance for public benefit. In an effort to reduce costs and improve constituent experience, the agency is migrating its three existing, county-based integrated eligibility systems into [one cloud-based system powered by AWS](#).

Once complete, in 2023, the state projects it will save \$30 million a year from the migration.

"One of CalSAWS's biggest motivators was to unwind out of technical debt and that's one of the reasons that a lot of organizations, both public and private, move to AWS. It enables them to access industrial grade performance services that can run on a global scale without the need to necessarily bring along legacy technologies that garner a lot of investment but no longer deliver a unique value in terms of performance or function," says Spitzer.

Indeed, as agencies turn away from costly and complex custom-built tools to more robust, open-source technologies, they find that adopting or refactoring applications to make them more cloud-native better supports those capabilities while lowering cost and improving resiliency and performance.

As agencies look to continue to capitalize on their cloud investments and transition to digital government and telework, these types of migrations will be even more common. Spitzer notes, importantly, that no modernization happens in a vacuum; migrations take time as agencies look to assess their applications, investments, web tier, and more.

"It's commonly an 18 month to a multi-year design develop and implement process," says Spitzer. "We stay engaged with our customers every step along the way to help guide them through and make sure they are successful. What's cool is we have those design patterns. We know what those destination architectures should look like. We can lower their chances of having bumps in the road as they go and garner value as quickly as possible."

30-50%

The amount of savings state and local governments can realize when moving to the cloud

Source: California Information Technology Annual Report 2016, California Department of Technology

But this hybrid work model also calls for agencies to continue rethinking capabilities and infrastructure around telework beyond their initial workarounds.

"Going forward, many of these agencies that adopted short-term solutions in the cloud should look to further evolve their cloud infrastructure in order to reduce hardware needs and physical desk space," says Sublett. "Working directly from cloud-based services, in the future, employees will be able to go directly from their personal computer via a VPN tunnel to the cloud, negating the need to have computers turned on in the office."

Collaboration is also a major consideration for long-term telework. In order to continue serving communities effectively, employees will need to be able to collaborate simply and securely—something the cloud has proven it can deliver. For California, the cloud already created opportunities to increase collaboration within agencies and remove obstacles to citizen

A trusted partner in the cloud

With the cloud, as with many tech adoptions, it's often difficult for agencies to know where to start. This is where a trusted vendor partner can help.

"The worst thing that you can do is see a shiny new tool—that's the hammer, if you will—and then try to just hit everything with that. It takes a crisp understanding of what your business problems are and what you want the outcomes to be in order to solve them," says Sublett. "We need to stop and imagine how the needs of the citizens of California have changed and make sure that we're designing for the needs of the end customer and always, always adding value."

AWS works hand-in-hand with agencies to discover, understand, and work through issues alongside them, tapping years of experience and industry expertise to customize solutions and capabilities.



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David Pizzo, Account Manager,
AWS State and Local Government, State of California



"Amazon has seen tens of thousands of organizations evacuating out of legacy environments into mature, open-source technologies that have services underneath them that enable them to perform resiliently and securely at scale," says Spitzer. "We've made some specific targeted engineering that allows AWS to be incredibly resilient and typically at around one-tenth of the cost—a pretty eyebrow-raising number."

With more than 170 solutions available, AWS can also help make sure that they have pretty much every tool in the toolbox any customer could need, from databases to machine learning to compute and storage. And, with the CDT's ongoing contract with AWS, California agencies have access to what Pizzo calls an "easy button" for procurement.

At the end of the day, however, it's about more than just the tools that a partner can deliver.

"There's no compression algorithm for experience," says Pizzo. "You can have the best solution on the market, but if you don't have your customer's best interest in mind, you're not going to be a help to them."

[Learn more](#) about how AWS can help your local agency embrace transformation with the cloud.