

Making open source the right fit for state and local government projects

BY STATESCOOP STAFF

Open source policies and initiatives have existed in government for the better part of the last decade. State and local government agencies should look to what the approach represents as well as what the outcomes could be.

Though it isn't new in state and local government, the pivot to open source is one that represents a cultural shift in the way agencies approach creating and releasing digital services.

In a roundtable discussion with several C-level state and local government technology officials from around Northern California, leaders said they were "open to it" but had not fully leveraged the capabilities that it presents.

But that's changing – mainly due to the cultural shift that open source represents. Government is continuing to move toward creating a seamless experience of interacting with technology, whether throughout the app development process or in the day-to-day maintenance of servers, systems, clouds and more.

While alike, there's a difference between open source projects and open source products. The challenge, one leader said, is balancing the difference between the two in government. That balance is particularly difficult due to budgetary and cybersecurity concerns.

With dwindling or stagnant budgets and the pressure of legacy modernization, governments are turning to open source to help make ends meet and find a way to develop an information technology office that is not inhibited by silos and reporting structures, but rather one that is agile and can innovate rapidly to deliver the best services for citizens.

By involving the right partners in the private sector, as well as in their own agencies, governments can focus on the projects as a whole that they're working on – not just the open source code that makes up the individual product.

One leader, who created a working group of like-minded chief information officers across the enterprise to look into open

source, said the startup community and civic tech are driving government to embrace the approach.

"A couple of years ago, we did our first community involvement civic tech workshop," the leader said. "We set out to get one or two applications, and we ended up getting something around 12."

Those applications, the leader said, were only possible because of the stable and secure architecture that open source provides.

"We look at those things and ask 'would it make sense in our normal course of operation?'" the leader said. "We're definitely for it."

One local government technology leader said their agency has an open source policy, but it hasn't been used much in actual operation.

"We have an open source policy, but I haven't seen too many examples of people using it," one leader said.

Despite the reluctance to embrace the technology, a technology leader present at the roundtable emphasized how much of government operations – new and old – actually rely on open source, and how many of the latest products coming from the burgeoning civic tech movement will be powered by it.

"I could virtually guarantee that every project that comes out of a civic tech startup is consuming open source in the creation of it," one leader said. "That's part of the conversation that I don't hear enough about in government when we hear concerns about open source. The reality is that your operations today rely on open source, and would fail without it."

The main reasons for this reluctance to embrace, however, remain consistent across government as a whole, leaders said.

From city government agencies focused on innovation, to state government entities charged with delivering services to millions of residents, state and local government technology officials need to change the way they educate agencies about open source and include policymakers and governance officials in the process.

Education

“Our attorneys and our engineers aren’t educated in what their responsibilities are in using open source,” one leader said.

By educating those nontechnical parts of the organization, as well as including them in the decision-making process around it, organizations can get more buy-in around open source. That buy-in, leaders said, ultimately allows them to move forward and increase adoption across their own enterprises.

The process to get to that level of adoption, though, could take some time for some agencies.

“I’ve seen open source – and the way I see it is it can work really well in government, and sometimes it doesn’t work too great,” one leader said.

Government agency leaders need the operational efficiency, security and agility that open source can bring, one leader said – and making sure that decision makers outside of the technology landscape understand that is key to integrating an agency-wide embrace of open source.

“The needs of the agency require technology to work almost like there’s no boundaries,” one leader said. “In order to be competitive, government needs to take advantage of the opportunities of today’s world. That requires speed. That requires continuous delivery.”

As government changes, educating fellow leaders is key, one agency technology official said, to bridging the gap from the previous way of service delivery to a new one driven by open source and agile.

“Both models are required to be successful,” one leader said. “Educating our peers about the benefits of consistent, secure and industry-supported open source needs to be foundational, especially due to the fast-changing needs of IT.”

But to get there, culture will be an important piece.

“There’s a big cultural shift that I believe needs to occur,” that leader said. “When a lot of folks think of open source, at least that I’ve engaged with, they think it’s some college student in the basement of his parents’ house coding something out.”

A key piece of that open source journey, though, is finding the right partners in the private sector to help carry out those efforts – one that makes it easier for government to focus on delivering the actual services, as opposed to maintaining bundles of code.



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“Communities create projects, not products,” one leader said in the discussion. “We need to be looking for industry partners that are familiar with open source methodologies and contribute back to the communities.”

Some vendors, the leader said, are among the most active contributors to open source projects like Linux, and work collaboratively with their government customers on their innovation-focused projects.

The challenge lies in the opportunity to change the perception on how governments measure success with open source, and how agencies can lean on that in the future – because they’ll need to as workforces continue to change.

“We have a lot of things that we have to think about,” the leader said. “A lot of folks coming in that want to work with us don’t have any interest in COBAL. They have zero interest in that. We have to retool and rethink the five, ten, fifteen year path and that technology and how that’s going to work within the state.”

Inclusion

One of the ways to make the embrace successful, and not just an attempt, is by building a community around the approach. With attorneys and nontechnical staff in the organization engaged in the benefits of what open source can provide to an agency, the absorption of it into the entire organization can make a larger impact.

“I like to pin [success] to the community supporting that open source tool,” one leader said. “If it has a good sense of community, there are a lot of people looking at it, improving it, updating it. It has really good sponsorship.”

That approach is more effective, the leader said, because many hands and eyes are better than one, and different parts of the organization all have a hand in the success of an individual product.

Another leader – who has a statewide purview and touches multiple different agencies – said in states like California, with massive budgets, populations and services – a unified policy-based approach could prove helpful.

“We really need to figure out more broadly statewide from a policy perspective and then an implementation perspective,” the leader said. “Then, we can really focus on open source and what that means for our state.”

That work begins with rewriting and reinvigorating old policies – since at least 2010. State agencies will be releasing a new policy on open source in coming months that taps into new initiatives underway in the state’s information security office. The new policy also taps into code.ca.gov – a California repository of the state’s open source code.

“We’re trying to build some of these foundational elements to get the state sort of socialized to the idea that there is another option – it’s not the only option, maybe it’s a hybridized solution,” the leader said.

Another area where an all-inclusive approach helps is cybersecurity, one leader said.

“By tapping into a community – both internally and externally – that helps you modernize while minimizing risk, you can keep up with the constant changes and security vulnerabilities,” the leader said. “Government agencies are not software companies – they don’t have the bandwidth to manage those changes. Having the right partners ensures that government can focus on that service delivery instead of the code maintenance.”

One leader said that a good place to start would be to establish a shared platform – not just a code repository – for governments and agencies to share ideas, code and policy.

“I think one thing that’s missing not just in tech but overall in government is how do we actually share policies so there’s open source where you can share technology, but also a platform for new policies and ideas,” the leader said. “If we had something where we could fire out anytime we need a policy on something, you can create your own localized or focused roundtable on a topic.”

That sharing mechanism could touch on state, county and city efforts, the leader said, and bring people together.

“Education is really key, I think all of our problems could be resolved if everybody understood what was going on,” a leader said. “Way too often we build our own stuff thinking we’re the only ones who do it. We don’t do a very good job of collaborating to figure out what policy items, what technology we can leverage across each other.”



Though open source is continuing its growth in government, that cultural change needs to take root – because the future of government does actually depend on being able to break down the walls that prohibit sharing and collaboration, and unify the way government approaches technology without borders.

“We can’t continue to ignore it, because it is becoming more and more commonplace,” a leader said.

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