Will 2021 Be Year of the Cloud for Federal Health IT?

HHS and VA officials are looking to holistic, cloud-based capabilities to get more out of their data.

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As federal health IT officials are looking toward 2021, their focus is on leveraging data more effectively, furthering cloud adoption, investing in their workforces and partnering with industry teams who can offer packaged rather than point solutions.
Officials from the Departments of Health and Human Services and Veterans Affairs highlighted their goals for the coming year during the FedHealthIT 100 Awards, where leaders like Centers for Disease Control and Prevention CIO Suzi Connor emphasized continued modernization of their assets for effective demands for data.

“We are undergoing CDC’s public health data modernization initiative,” Connor said. “This initiative requires the creation of a public health data platform that’s scalable to meet the demands of the data that is so elastic and growing and complex amongst our organizations. So implementing systems that allow for the timely, easy intake and analysis of data, both from our traditional and non-traditional data sources.”

This transformation of CDC’s core infrastructure takes on a “very aggressive cloud modernization strategy,” Connor added, which will involve reducing on-premise infrastructure and migrating data systems to the cloud to achieve scalability. Key to this are CDC’s enterprise data and analytics visualization platform and the agency’s move toward serverless technology.

“This will enable faster analytics and decision-making that was not available in our legacy technology,” Connor said of CDC’s modernization. “New data visualization techniques are being used to share with clinicians, patients and policymakers to improve public health.”

IT infrastructure modernization to the cloud is critical to CMS next year, said the agency’s CIO Rajiv Uppal. Particularly, Uppal is interested in enabling faster cloud adoption and using modernized capabilities to accelerate service delivery.

“How do we make sure that we have the cloud infrastructure that can respond to the needs of our internal customers?” Uppal said. “In the past, it used to be that if people wanted a cloud infrastructure setup for their project or their systems, it used to take about four to six weeks. And now, over time, we’ve been able to shorten that down to two weeks, and our goal is to get it down to 48 hours from the time somebody makes a request for us to be able to respond.”

Uppal also wants to revamp the upskilling and reskilling process for his personnel as part of his goals for the future. Rather than just running large open online courses, he wants to combine those courses with experiential learning.
“Let’s say you’ve done human-centered design [training],” Uppal said. “Could we use that expertise and now apply it to a project with some mentoring or shadowing? So, [it’s] just to help sort of solidify what you just learned and put it into practice, do some hands-on learning.”

While Uppal is looking toward new processes and ways of improving his personnel, National Institutes of Health CIO and Center for IT Director Andrea Norris is also looking for unique and agile strategies in 2021, especially as the challenges around COVID-19 demand quick information and response turnaround.

“We’re learning how to do science at the speed of infection, ... and that demands agility, demands out-of-the-box thinking that demands innovation and demands speed, and so it’s not just a technology issue,” Norris said. “What we’re seeing with some of the vaccine work, some of this has been compressed down from what typically is years into many months, and it’s because they really rethought sequential processes and ways of looking at the problem set, leveraging work and platforms that have been proven for many years.”

NIH’s investment in data science and migrating its big data resources to the cloud over the past couple of years has been helpful in achieving these goals, Norris said. In the past 18 months, NIH has moved over 100 petabytes of scientific data to the cloud in its STRIDES Initiative, for instance, and the agency has built up its analytics tools, researchers and machine learning and artificial intelligence capabilities, which Norris said has created a foundation that she wants to build upon in 2021.

Part of that build up for the coming year will come in Norris’ focus on partnering with companies that offer holistic and long-term solutions, she added.

“We need to have the folks who can come and help us not just bring tools to the table, but bring that holistic, out-of-the-box thinking to help really work the problem in totality, work the opportunity in totality in partnership,” Norris said. “Point solutions are great, but they only get you so far, right? And we’re in it for the long game and for the big whole program, the whole opportunity, not just tomorrow’s issue.”
Food and Drug Administration Chief Technology Officer Vid Desai echoed Norris’ comments, highlighting that he’s seeking packaged solutions from industry partners moving forward rather than point solutions.

“What we need are packaged services or packaged solutions,” Desai said. “If you look at the example of email, pretty much all of us have now given up our internal on-premise email systems and embrace the cloud. So we no longer need to purchase email gateways and routers and spam software and litigation hole capabilities. All of that’s bundled to us. It’s sold to us as a service, and I think we need more of these packaged service capabilities instead of point technology solutions.”

These packaged solutions, Desai added, should consider the entire stack of his organization’s technology services and help FDA realize capabilities like the formation of a secure data lake or an internal and external blockchain.

On top of these continuous modernization goals that agencies within HHS are striving toward in 2021, the Department of Veterans Affairs is also pushing forward with a packaged strategy toward building its platforms, data-driven modernization and continued development of its DevSecOps adoption.

“A key area of focus for us is in using our own data to provide more effective decision-making, everywhere from clinical decision support, which is definitely an emerging technology area for us, but also on the benefits processing side,” VA CTO Charles Worthington said. “We see the ability to use machine learning and artificial intelligence tools in useful ways to help streamline the process of going through those sorts of activities.”

Worthington added that his endeavors for 2021 include building infrastructure in more interconnected ways, an “ecosystem of platforms that have easy self-service tools.” Much of this, he said, involves breaking down silos and moving to the cloud, as well as partnering with VA Deputy Assistant Secretary of DevOps Todd Simpson in this effort.
“We’re pursuing a bit of a modernization strategy that’s going to take a look at our whole portfolio and look for opportunities to modernize what we’ve got by making them easier to integrate with and also look for opportunities to go to more commodity solutions,” Worthington said.

Simpson said he intends to push forward with DevSecOps adoption in this modernization initiative, as well as sharpening VA’s IT product lines.

“I’m just really doubling down around building out the product line,” Simpson said. “We have five portfolios and 31 product lines composed of about 400 projects. ... It’s going to be key as we continue our modernization movement to really have good organization going on.”