West Virginia leverages the cloud to handle flood of unemployment claims

Innovative technology rapidly expands West Virginia's ability to serve citizens affected by COVID-19.

Even though West Virginia was the last state in the nation to report a case of COVID-19, social distancing and lockdown orders generated a sudden leap in citizen needs that left it struggling to manage.

Today, the state is rapidly responding to these challenges with cloud-based technologies that transform how government officials communicate with the press and public about the pandemic and dramatically increase the state's ability to serve citizens impacted by the resulting economic downturn.

Enabling virtual news briefings

One of the state's first challenges was providing real-time pandemic information to citizens and the news media. With social distancing rules in effect, Governor Jim Justice and his executive team could no longer hold in-person news briefings. The governor's office had access to broadcasting equipment. But the technology had several shortcomings, including the inability to support live interaction between news reporters and West Virginia leaders and health experts. The state needed a platform to virtualize the governor's daily COVID-19 news briefings and expand their reach to keep citizens and the press apprised of the latest developments.

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> — Joshua Spence, CTO and Director, West Virginia Office of Technology

"With the rapid change of information, the governor's office needed a solution that could be implemented extremely quickly so they could widely disseminate important health information in real time," says Joshua Spence, West Virginia's chief technology officer and director of the state's Office of Technology (WVOT).

Amazon Web Services (AWS) approached the state with a solution in the form of Amazon Chime, a cloud-based communications service. Amazon Chime would allow the integration to broadcast to media members located anywhere and support live interactive chat that enabled the governor to field questions from reporters.

Once the state gave the go-ahead, Amazon Chime was deployed in approximately three hours—in time to support Governor Justice's March 18 news briefing. The solution made West Virginia one of the first states in the nation to conduct completely virtual, interactive press conferences.

In addition, video from the governor's news briefings is live-streamed to multiple social media channels daily, greatly improving residents' access to rapidly changing COVID-19 information.

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Scaling services to meet unprecedented needs

Shortly after the Amazon Chime implementation, a bigger and even more pressing issue emerged. The state's mandatory shutdown of non-essential businesses — issued March 24 to slow spread of the virus — put thousands of West Virginia residents out of work. Traffic began to spike at the state's unemployment insurance (UI) call center as citizens applied for benefits.

In February 2020, the U.S. Bureau of Labor Statistics reported West Virginia's unemployment rate at 4.9 percent. In March, the number swelled to 6.1 percent. By the second week of April, the state's existing UI call centers received 77,000 calls, overwhelming its legacy call center platform.

Governor Justice's initial response was to extend call center hours. He also called upon members of the West Virginia National Guard and West Virginia University staff to answer calls in a supplemental call center. But the state soon hit limits in the number of call center staff it could support and the number of simultaneous calls it could handle with existing technology.

"The phone systems in use were not built to handle the extreme call volume we were experiencing," says Spence. "We knew some of our phone systems were running older equipment and would not be capable of managing the load."

In addition, the state's existing on-premises systems could not support remote work for call center agents. Nor did they provide visibility into call volumes and traffic patterns.

"That meant we couldn't adapt to the necessary call flows," says Spence.

The state also could not support the use of prerecorded messages with commonly requested information to help callers avoid waiting to speak to a live agent.

"We didn't have the kind of dynamic call management at the beginning of a call that could help alleviate callers from sitting on hold," he says.

State leaders realized they needed to make a change quickly.

"We didn't have months to find and implement a solution when things settled down," says Spence. "We needed an adaptive solution that worked in concert with our existing systems to get callers through quickly."

WVOT reached out to several technology providers in search of a scalable solution that could help the state better manage the surge in UI calls. On the afternoon of April 10, WVOT selected AWS and Smartronix, a Premier Amazon Consulting Partner, to implement Amazon Connect, a cloud-based contact center solution. Amazon Connect was soft launched approximately 72 hours later.

By April 20, the new Amazon Connect was fully rolled out and processed a record 61,252 calls in one day. The new solution handles an average of 40,000 to 45,000 calls daily. Amazon Connect also provides the advanced analytics and metrics West Virginia needs to use its resources more effectively by matching staffing levels to expected call loads.

Using the fully scalable cloud-based platform, the state is limited only by the number of qualified agents it can put on the phones.

"Before, the on-premises equipment held us back," says Spence. "With the cloud solution, we are no longer limited from an infrastructure perspective."

BY THE NUMBERS:
West Virginia before and after COVID-19

NUMBER OF RESIDENTS:
1.79 MILLION

PRE-COVID UNEMPLOYMENT RATE:
4.9%

CURRENT UNEMPLOYMENT RATE:
6.1%

UNEMPLOYMENT INSURANCE CLAIMS FILED:
146,556 AS OF APRIL 25

West Virginia also deployed Amazon Polly, a text-to-speech service, to provide callers basic information during the initial call flow. Providing automated information dramatically lowered the number of callers who need help from a live agent. Currently, 96 percent of calls are handled by the interactive voice response (IVR) system and 4 percent require an agent.

"We are answering questions quickly and efficiently without human interaction. That's where the value is really coming into play," says Spence. "The modern call flow technology is also flexible and allows us to make fast changes to the information, which is useful in the current situation."

The state is working to expand capacity even further by adding Amazon Lex, an artificial intelligence-enabled chatbot solution, to its website to provide information and answer questions.

"This is an opportunity to engage on multiple channels in order to assist more West Virginians through the UI process," says Spence. "Technology is a force multiplier when it comes to our ability to answer questions and help our citizens."

A new approach to modernization

West Virginia had limited experience with cloud technology before implementing the AWS solutions. But lessons learned from the pandemic response could shape the state's IT strategy moving forward.

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"This put cloud technology and its transformational capabilities front and center for us," says Spence. "Cloud might not be the right solution for every situation, but in this case, it definitely gave us agility, flexibility and speed at a time we most needed it."

In addition, the new cloud-based solutions are proof that technology modernization pays off when unexpected challenges arise.

"It can be difficult to move technology change forward because of apprehension about such change. But when properly implemented and leveraged, technology can create significant efficiencies," says Spence. "I'm confident these projects will provide an opportunity for us to push forward and modernize as we come out of this pandemic and return to our new normal."

This piece was developed and written by the Governing Content Studio, with information and input from AWS.

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FOR: aws

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