The Cloud Helps Rhode Island Manage an Unprecedented Surge in UI Claims

Innovative technology enables state Department of Labor and Training to rapidly scale services for residents impacted by the COVID-19 pandemic.

When the U.S. economy ground to a halt in response to the COVID-19 outbreak in March, states experienced a dramatic surge in unemployment claims. Rhode Island was no exception.

The Rhode Island Department of Labor and Training (DLT), which manages unemployment insurance (UI) claims for state residents, received more than 140,000 initial claims for the UI program alone in the first 45 days after the governor declared a state of emergency. By comparison, the state — with a population of slightly over one million people — received 107,000 initial UI claims during the peak of the Great Recession.

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75,000 RHODE ISLAND RESIDENTS

to successfully file continuing claims.

Handling a huge spike in initial UI claims using a 30-year-old COBOL-based processing system was one challenge, but the state also had to handle recertifications. In Rhode Island, once a resident files for unemployment benefits and is deemed eligible, that person is then required to file a continuing claim each week via telephone or on the web. Approximately 80 percent of those continuing claims calls are placed on Sundays. DLT leaders realized a sharp increase in the volume of weekly continuing claim certification calls would inundate the department's outdated interactive voice response (IVR) and interactive web response (IWR) systems, frustrating thousands of UI beneficiaries who desperately needed help.

Initial projections conducted by DLT leaders indicated the agency would receive about 30,000 recertification calls during the first weekend after the closure of all non-essential businesses. That number was expected to double the next weekend, eventually swelling to approximately 200,000 calls within a 10-hour period. At the time, the agency could manage only 75 concurrent calls.

"Failure was clearly evident," says Scott Jensen, director of DLT. "It just wasn't going to work."

To add further complexity to the challenge, the federal Coronavirus Aid, Relief and Economic Security (CARES) Act lengthened the time individuals can receive unemployment benefits, increased the benefit amount and introduced the Pandemic Unemployment Assistance (PUA) program, which makes UI benefits available to self-employed individuals. Those changes put even more stress on DLT's aging and inflexible UI technology.

"There was no way we could code our old-school mainframe system to process all the new UI claims and handle PUA claims," says Jensen.

The state needed an immediate solution. But with few resources and reduced budget, options were limited.

Ten Days to the Cloud

Before the advent of the COVID-19 crisis, DLT began working with Amazon Web Services (AWS) and the tech non-profit Research Improving People's Lives (RIPL). The project provided DLT a glimpse into how cloud solutions could help the agency better manage large volumes of data. That prompted DLT to reach out to AWS to assist with its new, more urgent challenge.

AWS responded immediately and suggested DLT implement Amazon Connect, a cloud-based contact center solution, to replace the department's legacy IVR and IWR systems and expand its capacity to take simultaneous calls. With the help of AWS, DLT and its technology partner — the Rhode Island Department of Information Technology — designed, configured and implemented Amazon Connect in just 10 days.

On April 19, its first full day of operation, the new IVR/IWR solution enabled nearly 75,000 Rhode Island residents to successfully file continuing claims.

"It was amazing how everyone came together and made it work," says Jensen.

BY THE NUMBERS:
Rhode Island Before and After COVID-19

NUMBER OF RESIDENTS:
1,057,000

PRE-COVID UNEMPLOYMENT RATE:
3.4%

CURRENT UNEMPLOYMENT RATE:
4.6%

UNEMPLOYMENT INSURANCE CLAIMS FILED:
147,017 SINCE MARCH 9

(137,754 of these claims were COVID-specific. This does not include the 35,031 claims received through the PUA program from 4/7 to 4/22.)

DLT can now scale Amazon Connect to handle as many as 2,000 concurrent calls per second.

"That's good, because all those people are going to call next Sunday, and that number is going to keep growing, unfortunately," says Jensen. "But now we know we're ready for it."

Amazon Connect enabled DLT to dramatically scale its contact center capacity, but the state still needed a solution to accept claims under the PUA program. Because the PUA program is new, DLT's UI system didn't have the functionality required to collect recipient data and process payments.

"We thought we could modify the business rules as required for our existing UI programs — but trying to stand up the PUA program was too risky," says Jensen.

To address that issue, RIPL and AWS worked together to develop a cloud-based online process to allow DLT to collect and store PUA application information. When the system went live on April 7, DLT received and managed more than 11,000 applications. And now, just weeks after the launch, the agency has received more than 35,000 initial PUA applications

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> — Scott Jensen, Director, Rhode Island Department of Labor and Training

"If the system was not in the cloud, our website could not have withstood that kind of barrage," says Jensen. "Using cloud gave 11,000 people a quick way to get

their information into the system so they could get their applications processed."

The team also developed a way to download state tax information to quickly verify applicant eligibility, making Rhode Island among the first states in the nation to successfully process and pay PUA benefits.

One Step Toward a More Agile Future

The resiliency and scalability of DLT's new cloud-based solutions took a tremendous load off the department's legacy system, making it more stable and reliable. In addition, the department now has access to real-time data and reporting that can be used to improve citizen experience.

"When we reached capacity on our old contact center system, people could no longer wait on hold, and they would just be asked to call back later," says Jensen. "Because we had no visibility into our system, we never knew how many people couldn't even get into the queue. The new system gives us that immediate visibility into our data. On the first day, we could see that 900 people per minute were trying to get into the system."

Most importantly, Rhode Islanders now have a streamlined vehicle that makes filing for and receiving UI benefits easier and faster.

While DLT still relies on legacy technology to power the backend UI system, Jensen says he's hopeful the cloud-based approach his agency chose to handle the current surge in traffic will set the stage for faster modernization of legacy systems throughout Rhode Island government going forward.

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"Like all states, we typically need a long lead time to explore new technology," says Jensen. "But this project proved we can be more agile and get fast, high-value results for our state and our constituents. Government has a very important job to do, especially under circumstances like this. It's time to innovate and see how we can make the user experience better when people really need us."

The flexibility and scalability of cloud technology could be key to those efforts, enabling state agencies to take a more agile and incremental approach to modernization, whether they are urgently responding to an unplanned crisis or simply replacing outdated legacy systems.

"The new system demonstrates what cloud technology can do. The next step is to bring the program experts into the process and give them a chance to iterate and come up with new ideas," says Jensen. "I think that will help broaden buy-in and we'll be ready to take larger chunks of our legacy systems into the 21st century."

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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