Rapid response: Geographic Solutions distributes $38 billion in pandemic-related unemployment compensation

Size: 375 employees · Industry: Workforce development software · Location: Palm Harbor, Florida

Challenges
- Rapidly scale to address pandemic-related unemployment crisis
- Onboard new state and territory workforce systems in weeks
- Accelerate unemployment claims processing and financial disbursement

Solutions
- Cisco® Unified Computing System™ (Cisco UCS®)
- Intel® Optane™ persistent memory (Intel Optane PMem)
- Cisco Firepower® Next-Generation Firewall (NGFW)

Results
- Distributed a historic $38 billion in unemployment compensation in a nine-month span
- Successfully handled a greater than 5000 percent increase in incoming traffic
- Accelerated server deployments by 3x
- Achieved sub-second response times for SQL Server database queries

Geographic Solutions is the leading provider of integrated software for state and local workforce agencies in more than 35 states and U.S. territories. The company’s custom online solutions manage all federally-funded workforce and unemployment programs. The solutions have been designed specifically to meet the diverse needs of job seekers, human resource professionals, American Job Centers, unemployment insurance and economic development agencies, corrections facilities, and educational institutions. For more information, visit geographicsolutions.com.

For more information
- Cisco UCS
- Intel Optane PMem
- Cisco Firepower NGFW

1Source: Based on internal Geographic Solutions data as of October 1, 2020.
Challenge: Respond to a national unemployment crisis

As the United States confronted a debilitating health crisis in Spring 2020, a similarly catastrophic unemployment crisis was materializing. Many companies large and small were forced to furlough workers, eliminate positions, or shut down altogether. As a result, many states and territories struggled to alleviate traffic bottlenecks on unemployment insurance websites, handle the intake of Pandemic Unemployment Assistance (PUA) claims, and distribute benefits in a timely manner.

“Our state unemployment systems experienced a greater than 5000 percent increase in traffic in March,” says Paul Toomey, president and founder of Geographic Solutions, a leading provider of online employment software for state and local workforce agencies. “There was tremendous pressure to get money to the people who needed it, so we had to spin up new capabilities and scale our environment very, very quickly.”

In addition to expanding the capacity of the unemployment systems already supporting four states, Geographic Solutions had to establish entirely new systems for four additional states and three U.S. territories. The mainframe systems used in those states—some of which are three decades old—were incapable of handling the changes needed to meet the requirements of new unemployment benefit programs established by Congress. And the territories, which have never had unemployment insurance programs but qualified for PUA, had to start from scratch.

“Setting up a state’s unemployment system typically takes at least two years if they’re moving fast,” Toomey says. “We had to do it in a matter of weeks for multiple states and territories.”

To do so, the company purchased 19 Cisco UCS servers with 2nd Generation Intel® Xeon® Scalable processors and Intel Optane PMem. Seven of the servers are 112 core, ultra-high-performance nodes, one each for the new states and territories Geographic Solutions is now supporting. The other 12 servers are dedicated to the company’s VMware and disaster recovery environments, freeing up additional capacity for pre-existing clients.

“We went with Cisco UCS because they’re fast, powerful, and able to handle large quantities of data. They’re fantastic servers.”

Paul Toomey
President and Founder, Geographic Solutions
Scaling with speed

Once the infrastructure decisions were made, it was a frantic scramble to get the systems up and running as quickly as possible. According to Helvey Johnson, director of operations at Geographic Solutions, the Cisco UCS servers were three times faster to deploy than the company’s legacy servers.

“Cisco UCS service profiles made a big job much easier,” he says. “We set them up once and will use them over and over as we scale the environment.”

The speed and simplicity of server deployment allowed Geographic Solutions to focus on a variety of complex requirements. The company had to establish discrete infrastructure environments—featuring its full application suite, which contains 72 modules—for each of the new states and territories it brought onboard. It had to accommodate a variety of legal, regulatory, and reporting requirements. And it had to prepare for an onslaught of attempted fraud.

“We deal with highly sensitive information about individuals and employers, so our systems have to have the highest levels of security,” Toomey says. “We’re thankful to have Cisco Firepower, which gives us outstanding protection and unified policy and threat visibility.”

In addition to being more secure, the new infrastructure has greatly improved application performance. Using Intel Optane PMem in App Direct Mode, the company now enjoys sub-second response times for its SQL Server database queries.

“We can tell which servers have Intel Optane technology in them,” Johnson says. “They’re distinctively faster, and that makes a difference with our applications and our users.”
Cisco and Intel work together to optimize solutions from the edge, through the network, to the data center. Cisco’s innovative UCS servers and HyperFlex hyperconverged solutions, powered by Intel Xeon processors, Intel Optane technologies, and Intel Ethernet products, provide high performance with low cost, simplified operations, advanced security features, and a modern data center. Customers can benefit from joint, scalable solutions, designed to solve key market challenges in multiple industries. Together, Cisco and Intel create a trusted ecosystem for hardware, software, and services that bring intelligence and analytics to your business.

1Source: Based on internal Geographic Solutions data as of October 1, 2020.

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Making history

In less than two months, Geographic Solutions was able to scale its infrastructure to support the needs of eleven states and U.S. territories. And from March 1 to October 9, 2020, the company processed and distributed a historic $38 billion in unemployment compensation payments to people who desperately needed them.

“The federal programs were highly publicized and there was a massive crush of traffic when they went online,” Toomey says. “We were processing more than 200 claims per minute. It was pretty intense.”

With the rate of unemployment claims steadily declining, Geographic Solutions is now focused on forthcoming workforce needs. The company has purchased nine additional Cisco UCS servers to supplement its production environment and help with big data analytics. It has also installed Cisco Intersight™ to boost operational insights and efficiency amidst ongoing infrastructure expansion.

“We made it through the initial tidal wave,” Toomey says. “The next challenge is getting people back into good, high paying jobs.”

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