



The customer summary

Customer name

Geographic Solutions

Industry

Workforce development software

Location

Palm Harbor, Florida

Number of employees

400

Distributing \$41.9 Billion in Unemployment Compensation

Geographic Solutions uses Cisco UCS to confront pandemic job crisis



Challenges

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



Solution

- Ultra-high-performance server infrastructure with real-time threat visibility



Results

- Successfully handled a greater than 5000 percent increase in incoming traffic¹
- Accelerated server deployments by 3x and infrastructure upgrades from 80 hours to 90 minutes
- Achieved sub-second response times for SQL Server database queries

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. Countless companies 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 5000 to 6000 percent increase in traffic in March,”¹ 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 three states, Geographic Solutions had to establish entirely new systems for four additional states and two 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[™] persistent memory (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,” Toomey claims. “They’re fantastic servers.”

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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 Secure Firewall, which gives us outstanding protection as well as 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 the Intel Optane technology installed," Johnson says. "They're distinctively faster, and that makes a difference within our applications and for our users."



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Improving visibility, reducing downtime

Geographic Solutions is using Cisco Intersight™ to manage its new server environment, and according to Toomey, the cloud-based platform has dramatically improved infrastructure monitoring and time-to-resolution.

"We now have in-depth, real-time visibility of our servers down to the component level," Toomey says. "In the past, we sometimes didn't know we had an issue until something failed, and even then it was difficult to pinpoint and resolve. Now we can see problems in real time, before they affect production."

Troubleshooting now takes minutes instead of hours, and a four-hour SLA helps minimize downtime.

"If we ever experience a component failure, a Cisco engineer and replacement part are on our doorstep within hours," Johnson says. "That has a major impact on business continuity."

Patching the server environment is also much faster. Geographic Solutions previously upgraded each of its 80 servers individually, taking roughly an hour per host or 80 hours total. With Cisco Intersight, the servers are upgraded collectively in less than 90 minutes.

“Cisco Intersight saves us a ton of labor hours,” Toomey says. “We’re spending less time managing hardware and more time focusing on our customers.”

Making history

In less than two months, Geographic Solutions was able to scale its infrastructure to support the needs of nine states and U.S. territories. And over the course of 2020, the company processed and distributed a historic \$41.9 billion in unemployment compensation payments and thwarted \$10.7 billion in fraudulent claims.

“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 1000 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, increase big data analytics, and deliver new services that help U.S. citizens get back to work.

“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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Product links

- [Cisco UCS](#)
- [Intel Optane PMem](#)
- [Cisco Secure Firewall](#)
- [Cisco Intersight](#)

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