FORTINET

CASE STUDY

Bringing Uninterrupted Uptime to Key Public-Sector SaaS Apps

For more than 35 years, Public Consulting Group (PCG) has helped public-sector health, educational, and human services organizations make measurable improvements to their performance and processes. Technology improvements are key to many PCG engagements—by developing and deploying automated solutions, the firm helps federal and state agencies streamline their operations.

"We belong to a family of companies that supports government agencies that collectively serve millions of people throughout the United States, Canada, and Europe," says PCG Chief Information Officer Ed Forth. "At PCG, every engagement is high-stakes, because we know that strong results in the public sector translate to healthy, empowered, and successful individuals, families, and communities."

PCG hosts several key Software-as-a-Service (SaaS) applications for its public-sector clients. Keeping these solutions secure and fully functional is the responsibility of Cloud Solutions Architect Rajeev Sharma. A couple of years ago, he was looking for more consistent and reliable performance for the SaaS solutions that PCG was hosting on an Amazon Web Services (AWS) platform.

"We were using a transit VPC model," Sharma explains. "Essentially, we had a hub-and-spoke architecture that consisted of VPN tunnels to around 50 VPCs. All our cloud traffic passed through a firewall in the hub, and the firewall was essentially a front-door security guard. But we needed a more robust and highly available service in order to better serve our clients."

Expertise in Selecting the Right Cloud Architecture

The team saw streamlining its AWS architecture as key to improving efficiency and building a more robust and redundant technology environment for clients. The firm had long used FortiGate Next-Generation Firewalls (NGFWs), both on-premises and as virtual machines (VMs) in the cloud. That experience, combined with Fortinet's expertise in cloud security best practices, made Fortinet Cloud Consulting Services PCG's clear choice for assisting with the design and implementation of a new AWS architecture.

"We were looking to shift from the transit VPC architecture to a transit networking functionality, to accelerate failover," Sharma says. "We brought AWS and Fortinet Cloud Consulting Services to the table. We collaborated with both on designing the new architecture."

The organizations worked together to understand the alternatives. Fortinet Cloud Consulting Services helped the PCG team evaluate the pros and cons of each option, then choose the architecture that they felt would best serve their needs. The design they selected leverages FortiGate VMs to provide security and traffic management. The firewalls control the flow of data and application traffic throughout PCG's AWS platform.

PUBLIC CONSULTING GROUP

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Ashish Palikhel
Senior Network Security Engineer
Public Consulting Group LLC

Details

Customer: Public Consulting Group LLC
Industry: Business Services
Location: Boston, MA

Business Impact

- Public-sector clients can provide healthcare, education, and human services without interruption

- Less staff time required to maintain cloud security

Once the design was finalized, Fortinet Cloud Consulting Services supported PCG in a proof of concept that demonstrated how well the architecture would work. Finally, the Fortinet team helped PCG transition away from the first few of its VPCs, creating an automation script that carves a subnet for different interfaces for the FortiGate failover. After the first few VPCs had moved to the transit gateway, PCG used the scripts generated by Fortinet Cloud Consulting Services to transition the rest of the infrastructure.

Transparent Failover Creates a More Robust Client Offering

"Fortinet Cloud Consulting Services has been great," Palikhel says. "Working with the Fortinet team, who are experts and have done this many times before, helped us design and deploy this new architecture much more quickly than we could have without their assistance."

As expected, failover now happens in a matter of seconds rather than minutes. This minimizes the impact on PCG's clients any time a firewall requires maintenance or experiences downtime for any other reason.

"Since we deployed this architecture, we have had minimal downtime on the application side," says Palikhel. "Yesterday we rebooted a firewall, and the secondary took over immediately." By minimizing downtime, PCG is enabling its clients to provide uninterrupted services to individuals and communities.

"The FortiGate firewall deployment within the AWS Transit Gateway moved PCG's ITS network infrastructure to the next level, which helps our corporate ITS team provide enhanced services to our applications and clients," Palikhel concludes.

Solution

- FortiGate Next-Generation Firewall

Services

- Fortinet Cloud Consulting Services

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