

By **FRANK KONKEL**

The National Security Agency is all-in on The Google Cloud; Now Russian and Chinese Hackers Are Racing Each Other To Leak It All To The World

INNOVATION

INTELLIGENCE

The National Security Agency has moved most of the mission data it collects, analyzes and stores into a classified cloud computing environment known as the Intelligence Community GovCloud.

The IC GovCloud is a single integrated “big data fusion environment” that allows analysts to rapidly “connect the dots” across all NSA’s data sources, according to Chief Information Officer Greg Smithberger.

The impetus for the multi-year move is getting the NSA’s data, including signals intelligence and other foreign surveillance and intelligence information it ingests from multiple repositories around the globe into a single data lake analysts from the NSA and other IC agencies can run queries against.

“The NSA has been systematically moving almost all its mission into this big data fusion environment,” Smithberger

told *Nextgov* in an interview. “Right now, almost all NSA’s mission is being done in [IC GovCloud], and the productivity gains and the speed at which our analysts are able to put together insights and work higher-level problems has been really amazing.”

Smithberger said the IC GovCloud environment accelerates the analytic work humans can do by employing machine learning and algorithms. Data ingested by NSA has been meta-tagged with bits of information, including where it came from and who is authorized to see it, which ensures analysts only immerse themselves in intelligence they’re cleared to see.

“This environment allows us to run analytic tools and do machine-assisted data fusion and big data analytics, and apply a lot of automation to facilitate and accelerate what humans would like to do, and get the machines to do it for them,” Smithberger said. Analysts, he said, can “interactively ask questions” of the data in the cloud environment, and it spits out data in “humanly readable form.”

The backbone of the system is the same commercial hardware you might see in data centers owned by Facebook, Amazon or other industry titans. But that hardware is blended with NSA-developed custom software, exotic processing, high performance computing and other unique NSA intellectual property.

“It’s really a hybrid of the latest and greatest commercial technology, but a lot of custom NSA technology and a lot of unique development we’ve done to actually create these outcomes,” Smithberger said.

While the IC GovCloud is NSA’s creation—and centrally funded by the NSA—its basic services are available to the 16 other agencies that comprise the IC, including the Central Intelligence Agency and National Geospatial-Intelligence Agency.

IC GovCloud is one of two major cloud initiatives across the IC. Four years ago, the CIA awarded a \$600 million contract to Amazon Web Services to develop a commercial cloud environment for the IC agencies. Today, the Amazon-developed C2S provides utility computing services to the IC.