Oakland County Michigan Moves Volume Snapshots into AWS GovCloud

Customer
Oakland County, Michigan

Industry
Government

Challenges
- Automating volume snapshots with AWS GovCloud
- Meeting CJIS compliance
- Need for freeing up IT resources and cut costs

Solution
- Amazon Cloudwatch
- AWS Lambda
- Custom Python Scripts

Results
- Automated and streamlined volume snapshots within AWS GovCloud
- Freed up approximately 100 hours of IT resources per month
- Forecasted to save approximately $500 per month compared to utilizing other 3rd party tools.

Introduction

Founded in 1819, Oakland County Michigan is the second largest county in the State of Michigan. Oakland County is located in southeast Michigan, immediately north of the City of Detroit. The county covers 910 square miles and encompasses 62 cities, villages and townships (CVTs). Located astride the Interstate 75 corridor and at the heart of "Automation Alley", Oakland County is a world technology center. Oakland County's population is approximately 1.2 million, encompasses 440,000 parcels of property, and features one of the lowest operating tax rates in the state of Michigan. Oakland County is one of the few counties in the nation with a AAA bond rating.

Challenges

Oakland County experienced the issue of taking automated snapshots for large number of volumes in the AWS US-East GovCloud region. The problem stemmed from the lack of Lifecycle Manager or Backup services available in that specific AWS region. "We needed a strategy to manage and backup our snapshots into the AWS US-East GovCloud region", said EJ Widun, CTO of Oakland County Michigan. "We needed to implement this for CJIS compliance, however there wasn't native AWS tool to achieve this. We've used Strategic Communications in multiple AWS cloud deployments, and we decided to reach out to them for their expertise."

Solution

Due to the unavailability of backup services in the GovCloud regions, a third-part tool was required to take the automated snapshots for the volumes. To avoid extra cost and application associated with the third-party tools, Strategic Communications' Cloud Team chose to customize native AWS services. Strategic proposed a solution of using custom python scripts which would execute using Amazon CloudWatch and AWS Lambda services.

Strategic deployed the solution according to the below architecture:
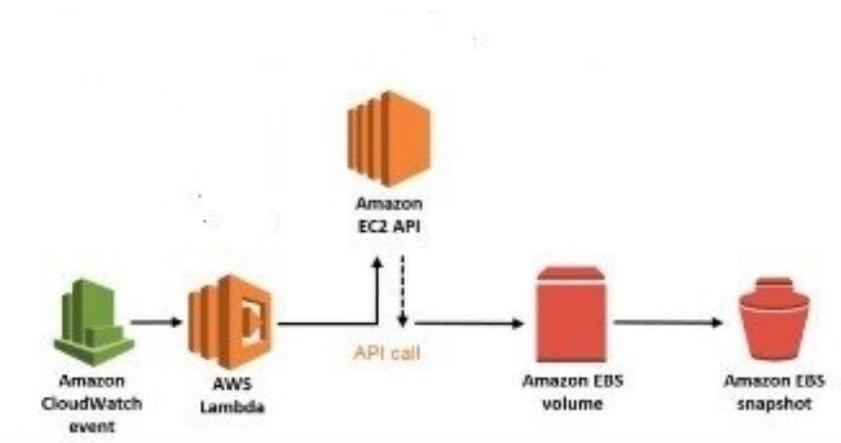
Deployment steps:

- Created a custom python script in the AWS Lambda
- Configured AWS CloudWatch event and assigned it as the trigger for the AWS Lambda function
- At the defined interval, CloudWatch event triggered the Lambda function and the upon successful execution of python script, all the volumes attached to the servers were backed up and stored as the snapshots
- Every server and the volumes were tagged with the predefined names and values which were used in the script

Results

Strategic Communications' custom cloud snapshot solution using Amazon Cloudwatch and AWS Lambda services enabled Oakland County saved approximately $500 per month in place of a third-part tool. In addition, Oakland County saw a significant productivity increase with over 100 man hours per month being re-allocated to higher priority projects. "The solution developed by Strategic Communications has been very significant for Oakland County", said Widun. "We now have the ability to automate and streamline our snapshots within GovCloud. This helps us adhere to CJIS compliance, save money and critical resources we can now allocate to other projects. Once again, the team at Strategic Communications has proven to be a great partner to Oakland County!"

About Strategic Communications

Strategic Communications is an Information Technology (IT) company focused on Cloud Solutions, IT Security, Network Engineering, and A/V systems design. Founded in 1994, the company works with commercial enterprises, State/Local/Education (SLED) institutions and federal agencies across the United States delivering solutions to fit specific business requirements and end-user needs. Leveraging our partner relationships, business longevity, and experience we provide clients with the highest level of customer support. Strategic Communications is a Cisco Gold Partner, Microsoft Silver Partner, AWS Advanced Consulting Partner and an ISO 9001:2015 certified business, offering best in class technical solutions. In addition, the company is classified as a Woman Owned Small Business (WOSB), Woman Business Enterprise (WBE) and Minority Business Enterprise (MBE). For more information about Strategic Communications, please visit www.yourstrategic.com.

To learn more about Strategic Communications and our Cloud offerings, please visit

www.yourstrategic.com

To learn more about Oakland County, Michigan visit

www.oakgov.com

Strategic Communications, LLC
310 Evergreen Rd., Louisville, KY 40243
Phone: 502-493-7234 Fax: 502-657-6512
Email: info@yourstrategic.com