



Cloud Cyber Risk Management

AWS Security Competency Use Cases

Contacts to support your AWS cyber risk needs



Aaron Brown

Partner | Deloitte Advisory
Cyber Risk Services
Deloitte & Touche LLP
aaronbrown@deloitte.com



Mark Campbell

Sr. Manager | Deloitte Advisory
Cyber Risk Services
Deloitte & Touche LLP
markcampbell@deloitte.com

Use Case 1: Celgene



Healthcare is undergoing a transformation to a value based, personalized paradigm fueled by the explosion and availability of electronic health data across the healthcare ecosystem. The cloud, next generation analytics, artificial intelligence, cognitive computing, and other technologies are accelerating data collection and insight generation, opening new pathways for collaboration and innovation across the healthcare ecosystem. To support this transformation, Celgene established a new capability called Information, Knowledge and Utilization (IKU) to drive this data-driven transformation of the organization.

Celgene deployed a cloud-based knowledge management, collaboration and Big Data analytics platform based on the ConvergeHEALTH by Deloitte Miner suite deployed on Amazon Web Service (AWS). The solution supports workflows across the enterprise from R&D to commercial initiatives. (WSJ Article Link: <http://deloitte.wsj.com/cio/2016/11/14/data-analytics-fuel-innovation-at-celgene/>)

To assist Celgene execute their vision, Deloitte incorporated security in the design and implementation of AWS leveraging a "Multi-Account" approach to create segregated environments along with the use of scripting to reduce the risk of human error made from manual intervention. The following AWS services were leveraged: AWS Snowball, AWS S3, AWS EC2, AWS RDS, AWS Workspaces, AWS KMS, as well as AWS security configurations using NACL's, Security Groups, and IAM.

Celgene was able to effectively launch their IKU platform by leveraging AWS and Deloitte's solution for scripting so that their end users can now efficiently pull data precisely and for intended purpose.

Use Case 2: State of Maryland – Department of IT



State of Maryland Department of IT (DoIT) entered into a Participating Addendum with Deloitte (previously Day1 solutions prior to acquisition) to help develop a uniformed cloud infrastructure and centralized governance model. The goal of the program is to design and implement an enterprise-level cloud platform that can be leveraged across all 59 state executive agencies for standardized cloud practices managed by DoIT.

In addition to cloud architecture, design, and implementation services, Deloitte also provides access to AWS's public cloud hosting products and services for both DoIT and other Maryland state agencies.

(<http://doit.maryland.gov/contracts/Pages/AmazonWebServices.aspx>)

The Deloitte team was brought on board to deliver:

1. Geographic Information System (GIS) Cloud Hosting Services: Includes cloud-hosting services specific to GIS services in the participating states.
2. General Cloud Hosting Services: Includes general cloud hosting services not specific to GIS requirements.
3. Cloud Provisioning Services: Includes access to cloud provisioning stacks that may be available to states for use with their internal cloud services and respondent cloud services.
4. Consulting and Design Services: Includes consulting and design services available to the states from the respondent for implementation of cloud services

To assist the Maryland Department of IT, Deloitte developed a governance framework leveraging a security reference architecture utilizing Amazon Web Services (AWS). Deloitte utilizes AWS to offer products and support for application hosting, database services, non-relational database (DynamoDB), storage, data transfer, maintenance and support, consulting services, amazon workdocs/workmail and other AWS cloud services.

Deloitte implemented a multi-AWS account strategy that allowed state agencies to effectively migrate and onboard onto the cloud platform. To complete this, Deloitte leveraged AWS IAM with multi-factor authentication and active directory federation in addition to the other following AWS services: AWS Flow Logs, AWS S3, Glacier, CloudWatch Logs, AWS RDS, AWS Cloud Formation, Cloud Trail, AWS Config, and Direct Connect.



This document contains general information only and Deloitte Risk and Financial Advisory is not, by means of this document, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This document is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte Risk and Financial Advisory shall not be responsible for any loss sustained by any person who relies on this document.

About Deloitte Risk and Financial Advisory

As used in this document, "Deloitte" and "Deloitte Risk and Financial Advisory" means Deloitte & Touche LLP, which provides audit and enterprise risk services; Deloitte Financial Advisory Services LLP, which provides forensic, dispute, and other consulting services; and its affiliate, Deloitte Transactions and Business Analytics LLP, which provides a wide range of advisory and analytics services. Deloitte Transactions and Business Analytics LLP is not a certified public accounting firm. These entities are separate subsidiaries of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Copyright © 2017 Deloitte Development LLC. All rights reserved.