

# Data Science Platform Modernization

## Business Advantages

- Reduced infrastructure bill by 40%
- 10x increased productivity of analytics team
- Better access to insights with self service capabilities for analysts

## Technical Advantages

- Multi environment deployment and provisioning from code
- Enablement for larger Data science teams to develop on the go experiments
- Release time improved from 2 weeks to per day

## Service Stack

- Kafka on EC2, Amazon Redshift, Snowflake, Amazon EMR (Spark), Looker on Multi-AZ EC2, Spark Notebooks and M, S3

## The Customer

The undisclosed customer is market leader in providing communication, learning, and payment services platforms for prison systems and correctional facilities. The company was serving 2,000+ facilities and 1.8 million inmates across 50 US states.

## The Challenge

The company managed a diverse ecosystem of over 20 platforms and applications, serving as sources for data collection. They maintained an on-premises environment that relied on traditional data warehouse and Big Data technologies, encompassing a combination of MS SQL Server, Netezza, and Hadoop. The company's extensive onpremises infrastructure struggled to meet the increasing demands of the business while also incurring escalating operations and management costs.

## The Solution

OnStak equipped with its globally diverse and multidisciplinary team of Data Science and Cloud specialists, collaborated with the customer to DevOps and executed a comprehensive migration and management strategy. This initiative entailed a seamless transition of the client's data estate from an on-premises data warehouse to the AWS Cloud, leading to significant improvements in performance, scalability, uptime, and costeffectiveness.

## The Outcome

By capitalizing on OnStak's knowledge of big data and data warehouse modernization, the organization was able to meet the strict legal and security requirements for multi-tenant access. This allowed for effective data sharing and simplified procedures for granting and rescinding access, making management quick and painless. Implementation heavily emphasized consumer data security, creating a reliable protection system.