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Ayla Networks Achieves a 67% Reduction in Storage with Rubrik NoSQL Protection



OUR CUSTOMER ACHIEVED



Using Rubrik NoSQL Protection, our customer realized a 67% cost reduction in secondary storage while using low-cost S3 object storage.

KEY CHALLENGES

- Scalability
- Failure resiliency
- Storage costs

WHY RUBRIK NOSQL PROTECTION

- Fast and reliable recovery (low recovery time objective [RTO])
- Easy operational adoption
- Cloud-scale software only
- Secondary storage efficiency

Rubrik NoSQL Protection provides the industry's first cloud-scale, application-centric, data management platform, enabling organizations to protect, mobilize, and monetize all of their application data across private cloud, hybrid cloud, and public cloud environments.

"With the cloud storage savings and operational ease that NoSQL Protection provides us, our DevOps teams are able to focus on developing IoT platform software that better serves our customers."

Adrian Caceres, co-founder and CTO of Ayla Networks

CUSTOMER BACKGROUND

Ayla Networks is a leading Internet of Things (IoT) platform company that provides a number of products that enable customers to quickly connect any device to the cloud and applications and make meaningful decisions from their data.

Application Environment

Ayla Networks uses Apache Cassandra database (DataStax Enterprise) for its IoT software-as-a-service (SaaS) application. Consumer appliance manufacturers connect over the internet to Ayla's IoT SaaS application, which is deployed in the Amazon Web Services (AWS) cloud, and store appliance-specific time-series data.

THE CHALLENGE

Ayla Networks initially implemented a scripted snapshot-based backup and recovery solution but soon realized the drawbacks:

- 1. lack of scalability,
- 2. lack of failure resiliency, and
- 3. storage inefficiency, which prompted Ayla to look elsewhere.

Ayla found that using a scripted solution did not work effectively when it experienced node failures in the Cassandra database environment. Moreover, the company had to spend significant manual effort and IT resources to maintain and develop the scripted solution as its Cassandra cluster scaled according to the application needs.

"Given the critical nature of our customer-facing data, a scalable, next-generation, cloudnative backup and recovery solution is a requirement."

HOW DID RUBRIK NOSQL PROTECTION HELP?

Ayla Networks deployed the three-node Rubrik NoSQL Protection cluster across multiple Availability Zones (AZs) in AWS for high availability. The native failure-handling capabilities of Rubrik NoSQL Protection provided Ayla with the ability to back up its database that included the scenario in which one of the database nodes could fail. From a secondary storage perspective, Ayla wanted to use cloud-native Amazon Simple Storage Service (Amazon S3) and minimize the storage costs. Rubrik NoSQL Protection allowed Ayla to reduce its secondary storage cost by roughly 67% while using low-cost Amazon S3 object storage.

DEPLOYMENT DIAGRAM



ENVIRONMENT DETAILS

	Cassandra Cluster 1	Cassandra Cluster 2
Database Version	DSE 4.8	DSE 4.8
Deployment	AWS	AWS
Cluster Size	6-node, single datacenter	12-node, single datacenter
Database Size	200 GB	3 TB
Number of Tables	~20	~30
Secondary Storage Type	Amazon S3	Amazon S3
Workload	Insert-heavy	Insert-heavy



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