DATOS IO

Ayla Networks

Cloud Backup and Recovery for Ayla Networks

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

To learn more, visit www.datos.io

Our Customer Achieved:

~67%

cost reduction in secondary storage while using low-cost S3 object storage

> " With the cloud storage savings and operational ease that Datos IO RecoverX 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:

Our customer, Ayla Networks, is the 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 their IoT software-as-a-service application. Consumer appliance manufacturers connect to their IoT SaaS application that is deployed in AWS Cloud over the internet and store appliance specific time-series data.

Key Challenges

- Scalability
- Failure Resiliency
- Storage Costs

Why Datos IO:

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

The Challenge:

Ayla Networks initially implemented a scripted snapshot-based backup and recovery solution but soon realized the cons: 1) Lack of scalability, 2) Lack of failure resiliency, and 3) Storage inefficiency, that prompted them to look elsewhere.

Using a scripted solution, our customer found that the solution did not work effectively when they experienced node failures in the Cassandra database environment. Moreover, they had to spend significant manual effort and IT resources to maintain and evolve the scripted solution as their Cassandra cluster scaled according to the application needs.

> Given the critical nature of our customer-facing data, a scalable, next-generation, cloud-native backup and recovery solution is a requirement.
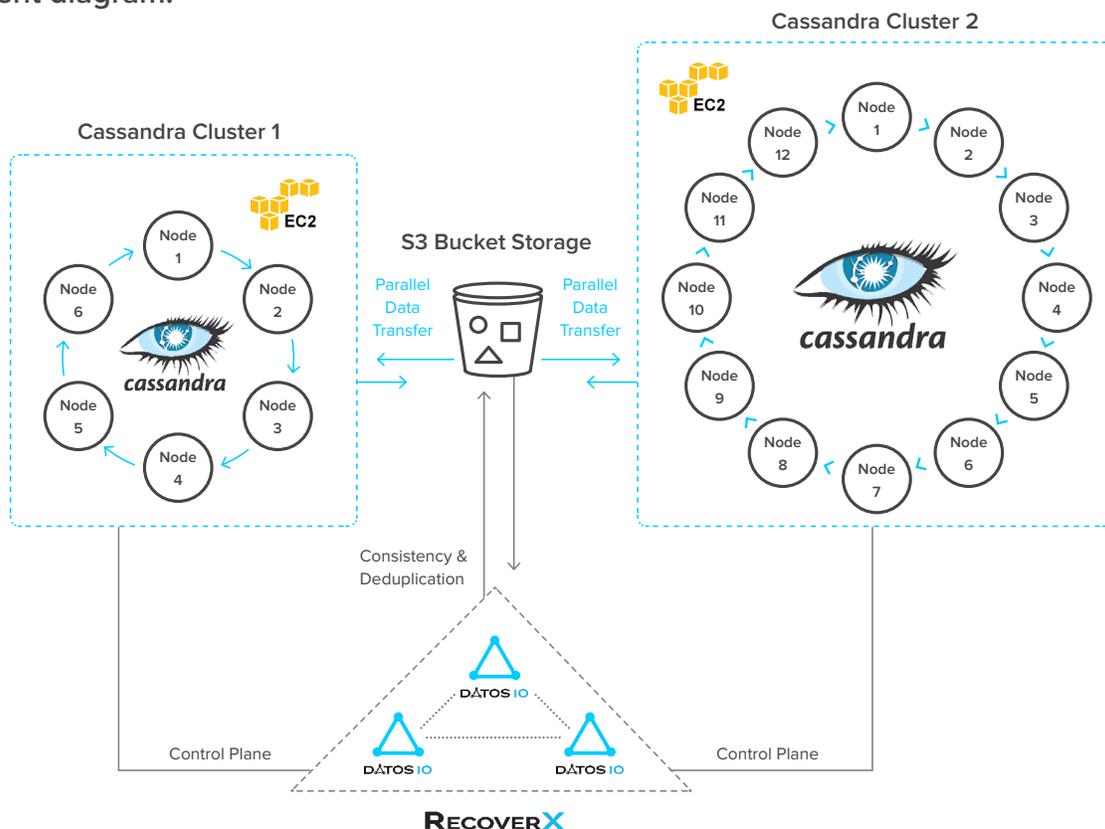
Adrian Caceres, co-founder and CTO of Ayla Networks

How Did Datos IO Help?

Ayla Networks deployed the 3-node RecoverX cluster across multiple Availability Zones (AZ) in Amazon AWS cloud for high-availability. The native failure handling capabilities of RecoverX provided them with the ability to backup their database under the scenario where one of the database nodes could fail. From a secondary storage perspective, this customer wanted to use cloud-native AWS S3 storage and minimize the storage costs. RecoverX allowed them to reduce their secondary storage cost by ~67% while using low-cost S3 object storage.

Deployment diagram:

Environment details:

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

About Datos IO

Datos IO is the application-centric data management company for the multi-cloud world. Our flagship Datos IO RecoverX delivers a radically novel approach to data management helping organizations embrace the cloud with confidence by delivering solutions that protect, mobilize, and monetize their data — at scale. Datos IO was recently awarded Product of the Year by Storage Magazine, and was recognized by Gartner in the 2016 Hype Cycle for Storage Technologies. Backed by Lightspeed Venture Partners and True Ventures, Datos IO is headquartered in San Jose, California.