Digital River Achieves 60% Cost Savings and Application-Consistent NoSQL Backups with Rubrik Mosaic

Digital River®

INDUSTRY

Technology

RESULTS

- 60% reduction in secondary storage costs

- Protection for 61 databases and tables across 5 Cassandra clusters

- 5 active backup schedules with no performance impact on Cassandra nodes

- Able to leverage existing investments in secondary storage for NoSQL backups

THE CHALLENGE

- Critical workloads running on Cassandra with different backup SLAs

- Increasing management and operational costs with native backup tools

- Node-level snapshots utilize expensive primary storage

- Traditional backups ineffective due to native-replication and compression

THE SOLUTION

- Rubrik Mosaic for backup and recovery for multiple databases and tables across 5 different Cassandra clusters

- Highly available 3-node Mosaic cluster ensures software resilience and high performance

- Application-centric approach addresses need for granular database and table-level control

Headquartered in Minneapolis, Minnesota, Digital River is a leading provider of global ecommerce technology and services. The company has nearly 25 years of industry experience in taking brands direct to their customers. Leading software, consumer electronics and digital game brands like Samsung, Adobe, Avast and Lenovo rely on Digital River's advanced commerce cloud, monetization tools and global ecommerce solutions to market and sell their products online. In 2013, Digital River processed more than $30 billion in online transactions.

Digital River uses a wide variety of database architectures, from relational databases to modern NoSQL databases, such as Apache Cassandra NoSQL to power some of their most critical customer-facing applications.

INCREASING MANAGEMENT AND OPERATIONAL COSTS WITH NATIVE BACKUP SOLUTION

"We manage monetary transactions for large ecommerce enterprises. This data is critical for our customers and protecting it from loss is a priority for us," said SP Naidu, Director of Data Technologies Engineering.

Digital River initially chose Cassandra for its speed and reliability offered by native NoSQL replication. "Unfortunately, native replication does not provide protection from logical data corruption and operator/software errors. Additionally, the lack of any point-in-time recovery (APIT) with just replication is not possible, which is a show-stopper for any organization running critical workloads on NoSQL databases without a durable and reliable backup solution," said Naidu.

Digital River has multiple Cassandra clusters, each with tens of databases (keyspaces) and tables (column families). These keyspaces and tables store different types of data and are used by a variety of customer-facing production applications. "Our data engineering and database teams need to honor different SLAs for each application team. Traditional disk backups do not provide a logical, application-consistent view of the data, which removes flexibility from database teams," said Naidu.

Naidu and team initially used native Cassandra backup tools to address these challenges, however, they were constantly challenged with operational usage and high secondary storage costs. Additionally, the need for different SLAs per databases and tables made the process of building and managing these scripts a time-consuming and cumbersome process.

RUBRIK MOSAIC FOR APPLICATION-CONSISTENT NOSQL DATABASE BACKUPS

Digital River deployed Rubrik Mosaic software to meet their backup and recovery requirements for multiple databases and tables across 5 different Cassandra database clusters. A highly available 3-node Mosaic software cluster setup ensures software resilience and high performance. Rubrik Mosaic's application-centric approach to backup and recovery addressed the need for granular database and table level control.

HIGH PERFORMANCE AND 60% COST SAVINGS WITH RUBRIK MOSAIC

With Rubrik Mosaic, Digital River was able to deploy a fully automated backup and recovery solution for multiple Apache Cassandra databases that achieved protection from logical data corruption in a highly efficient and cost-effective way.

- **60% cost savings:** "Along with realizing the peace-of-mind with Any Point In Time (APIT), Digital River was able to achieve 60% reduction in secondary storage costs."

- **Increased ease of NoSQL protection:** "With Rubrik Mosaic, Digital River was able to protect 61 Cassandra keyspaces and column families across 5 clusters."

- **Zero performance impact on database nodes:** "Digital River has been running multiple parallel database backup schedules with absolutely no performance impact on the source database nodes."

- **Automated and streaming recovery:** "Because Mosaic offers fully orchestrated recovery back to any Cassandra database cluster with any topology, we are also able to restore our production data into test clusters for application teams in a fully automated manner."

- **World-class support:** "The support we've received from Mosaic has been exemplary. We've also truly enjoyed working with their team; their product roadmap, willingness to partner and collaborate with us makes them stand out."

"With Rubrik Mosaic, we're confident that if any of our applications built on Cassandra databases are corrupted, we'll be able to recover from data loss using Rubrik Mosaic's point-in-time recovery capabilities. We've also truly enjoyed working with the Rubrik Mosaic team; their product roadmap, willingness to partner and collaborate with us makes them stand out."

- SP Naidu, Director of Data Technologies Engineering, Digital River