

Tier 1 Service Provider



Cancun Systems Helps Global Telecom Leader Boost Utilization of Multi-Tenant Clusters and Drastically Cut Infrastructure Costs/Footprint



About: The company is a global leader in corporate telecommunications services.

Operating in 16 countries, the company has more than 250 million customers worldwide.

Industry: Telecommunications

Business Challenge

For many large service providers, a fundamental challenge is improving the performance of multi-tenant Hadoop clusters to accelerate time-to-insights for its many diverse workflows. The company, a global Tier 1 service provider, required a solution that would allow them to improve utilization and performance of their big data clusters to speed up critical business tasks such as ETL (Extract, Transform, Load), mobile fraud, pattern detection and data science exploration. The ability to provide new computational resources to internal tenants more quickly was also presented as a critical requirement.

The company found that multiple Hive queries would often hinder performance of the entire cluster and its VM-based Hadoop clusters faced performance limitations. In large Spark operations where data did not fit in memory, Spark operations not only slowed down but often completely collapsed, causing a back-up in the job queue and ultimately crippling decision making.

Cancun MemoryLake™: An In-Memory Software Platform for Accelerated Insights

Cancun's MemoryLake™ software platform delivers an SDML (software-defined memory lake) that enables massive acceleration of application workflows, allowing customers to accelerate time to insights and enjoy tremendous infrastructure efficiencies. The service provider chose to implement Cancun's MemoryLake™ to improve utilization of both its on-premise and cloud clusters.

“Not only are we seeing better utilization of our existing multi-tenant clusters, but we’re saving money for the company because we’ve reduced our need for future infrastructure expenditures by a significant amount.”

- Big Data Architect at a Global Tier 1 Service Provider

Business Benefits

- ✓ Increase performance of the company's multi-tenant clusters by 8-10X.
- ✓ Transparently integrate data from diverse sources (e.g., HDFS, NAS, and Amazon S3) and from different locations (on-prem, cloud) via frictionless deployment.
- ✓ Reduce infrastructure footprint by 50 percent or accommodate more tenants on existing infrastructure.

“The ability to transparently consume data from different sources and different locations is significant. Plus, we don’t need to make any changes to our existing applications or infrastructure to gain the performance, efficiency and cost benefits of Cancun MemoryLake™.”

- Big Data Architect

Business Benefits

By employing Cancun’s MemoryLake™, performance of the service provider’s multi-tenant clusters increased by a factor of 8-10X. This performance improvement enables them to speed time-to-insight for workloads such as mobile fraud analytics so they can expose and resolve breaches and scams before users are impacted. In addition, because jobs are completed much faster, newly freed computational resources can be made available to more tenants.

Cancun’s MemoryLake™ platform also allows the company to ingest data from diverse sources (e.g., HDFS, NAS, Amazon S3) and from different locations (e.g., on-prem, cloud) without having to first duplicate data into a cluster. *“The ability to transparently consume data from different sources and different locations is significant, with the added bonus that we don’t need to make any changes to our existing applications or infrastructure to gain the performance, efficiency and cost benefits of Cancun’s MemoryLake™,”* added the Architect.

Finally, and of keen interest to the company, is the cost saving impact on its big data infrastructure now and in the future. With IT budgets tightening, the ability of Cancun’s MemoryLake™ to run more workloads faster will allow the company to immediately reduce its infrastructure footprint requirements or accommodate more tenants on its existing infrastructure. This reduces the cost of new deployments, and increases the ROI on the company’s current infrastructure.

“Not only are we seeing better utilization of our existing multi-tenant clusters, but we’re saving money for the company because we’ve reduced our need for future infrastructure expenditures by a significant amount,” said the Architect.

Conclusion

Cancun’s MemoryLake™ not only sped up performance of the company’s multi-tenant cluster workflows, it significantly lowered the company’s capital expenditures since they no longer need to expand their infrastructure exponentially to keep pace with data growth. The IT department is also able to provide computational resources to far more tenants since workflows complete much faster. According to the Big Data Architect, *“With Cancun’s MemoryLake™, our tenants are happy, we’re seeing high ROI, and there are no more slow clusters.”*

