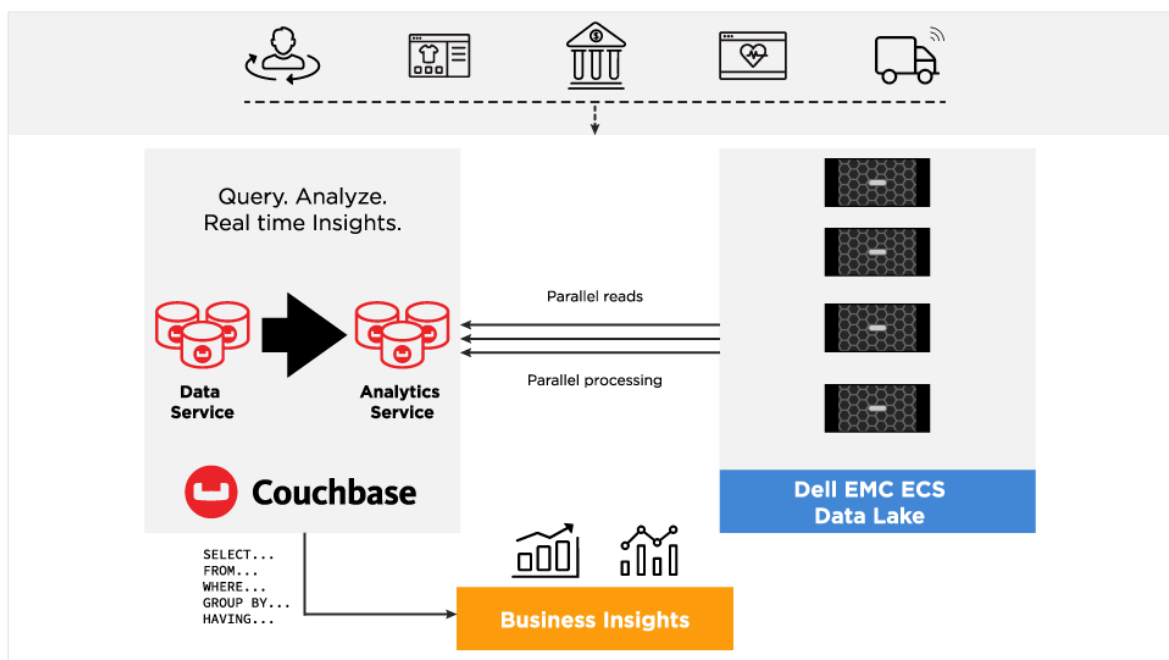


# Couchbase Analytics with Dell EMC ECS Solution Brief

In this data-centric era, massive quantities of data are generated every hour, minute, and second of every day. As the data volumes increase exponentially, the importance of not only storing data, but also the ability to derive value from it in a timely manner, is business-critical.

This solution overview of Couchbase Analytics and Dell EMC ECS describes how the Analytics capability of Couchbase can allow you to gain quick analytical insights based on data in the scale-out data-lake based on the Dell EMC ECS object storage system.

A solution consisting of Couchbase Analytics and Dell EMC ECS, demonstrates the linear scaling capabilities of each product, the two combining into a true scale-out solution for data storage and analytics. This solution enables customers to scale both storage and compute linearly, supporting increasing demands over time.



## Couchbase Overview

Couchbase is an award-winning distributed NoSQL cloud database. It delivers unmatched versatility, performance, scalability, and financial value across cloud, on-premises, hybrid, distributed cloud, and edge computing deployments.

Couchbase Analytics is a parallel data management capability for Couchbase Server. It is designed to efficiently run complex queries over many records. Couchbase Analytics supports SQL-like queries for data in remote Couchbase clusters and external Datasets for S3 and Azure blob storage data.

Couchbase features scopes and collections which can be used to model RDBMS schemas and tables/views in the Couchbase NoSQL database. With Couchbase, the relational world meets NoSQL!

## Dell EMC ECS Overview

ECS, the leading object storage platform from Dell EMC, boasts unmatched scalability, performance, resilience, and economics.

Ranging from 30TB to 11.5PB in a single rack, ECS comes in several appliance form factors. The recent addition of the EXF900, All-NVMe appliance, brings high performance at single-digit ms latencies, ideal for analytical and modern application workflows.

ECS delivers rich S3-compatibility on a globally distributed architecture, empowering organizations to support enterprise workloads such as cloud-native, archive, IoT, AI, and big data analytics applications at scale.

## Case Study: Retail

A large European retailer was looking to leverage existing on-premises capabilities to gain business insights from several years of customer receipt data, consisting of more than 1B records.

### Challenge

The data was held in a public cloud provider, meaning that the customer was challenged on the cumulative price of storage and compute in the cloud.

Wishing to leverage existing on-premises investments, an object storage data-lake based on Dell EMC ECS, and an existing deployment of Couchbase systems, the retailer wanted to move the data back on-prem and be able to perform complex queries against their data set in a cost-efficient and performant manner.

The last requirement for this business shift to be successful was to achieve qualification of the combined solution of Couchbase Analytics and Dell EMC ECS.

### Solution

The Couchbase and Dell Technologies teams designed a Proof of Concept and qualification test engagement to develop the solution.

By leveraging the extensive Dell Technologies Customer Solutions Center, it was possible to significantly speed up the testing & qualification process. Engineers from both Couchbase and Dell Technologies worked together to perform a variety of tests, from data access and analytics patterns, into measures of scalability and performance.

The engagement validated the interoperability and solution of Couchbase Analytics with a Dell Technologies ECS Data Lake. Additionally, it validated that the Couchbase MPP and ECS scale-out architectures both allowed for linear performance scaling. Which in turn allows customers to grow their on-premises solution based on business needs while controlling TCO.



At Couchbase, we believe data is at the heart of the enterprise. We empower developers and architects to build, deploy, and run their mission-critical applications. Couchbase delivers a high-performance, flexible and scalable modern database that runs across the data center and any cloud. Many of the world's largest enterprises rely on Couchbase to power the core applications their businesses depend on. For more information, visit [www.couchbase.com](http://www.couchbase.com).