

Support modern analytics at scale with Couchbase and Dell EMC ECS

Dell EMC ECS



Highlights:

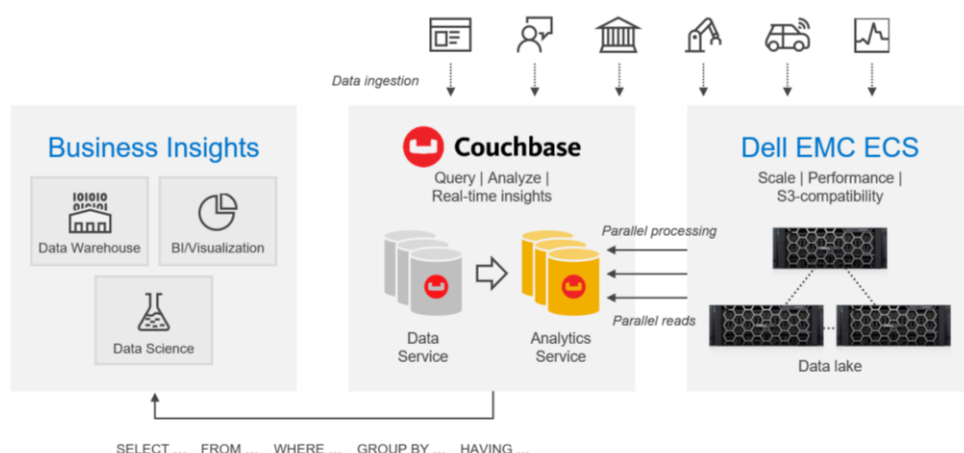
- S3-compatibly for streamlined application development
- Scale-out architecture delivers limitless scalability
- Cost-effective: 59.5% lower TCO than public cloud providers¹
- Global federation for anywhere accessibility
- Built-in data protection and compliance
- Custom metadata and search features
- Choice of software-defined or turnkey appliances
- Multiple capacity and performance profiles: HDDs and all-flash
- Consulting, residency, deployment, education, support, and managed services options
- Future-Proof Program

Wrangling big data

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

The partnership between Couchbase and ECS offers a unique solution to big data sprawl. By combining Couchbase’s powerful NoSQL technology with the limitless scalability of ECS object storage, your organization can rapidly generate actionable insights based on data residing within a scale-out, ECS data lake.

With the ability to linearly scale both compute and storage as data demands grow, you can quickly adapt to changing business requirements, deliver unparalleled performance and empower developers to build next-gen applications faster.



Couchbase: The modern database for enterprise applications

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 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.

ECS: Enterprise-grade object storage

ECS, the leading object storage platform from Dell EMC, boasts unmatched scalability, performance, resilience and economics. Ranging from 30TB to 11.5PB of capacity in a single rack, ECS comes in several appliance form factors including HDD and all-flash-based systems. The recent addition of the EXF900 all-NVMe appliance delivers extreme performance at single digit millisecond latencies, ideal for analytics and modern application workflows. ECS also provides 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.

Retail success story: Dell Technologies + Couchbase = Better together



Background

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.



Organization challenges

The retail organization was actively evaluating both public cloud and on-premises options to host their dataset and analytics solutions in the future.

The retailer found the public cloud financial model to be too expensive in comparison to an on-premises solution. The goal was to deploy and integrate a large-scale data lake with existing Couchbase systems, so the organization could effectively store data on-premises and perform complex queries in a more cost-effective and performant manner.

The Dell Technologies team proposed a proof of concept solution based on ECS. But to deploy ECS, the team needed to qualify the integration between Couchbase Analytics and ECS.



Joint Couchbase & ECS solution

Couchbase and Dell Technologies teamed up to design 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 and qualification process. Engineers from both Couchbase and Dell Technologies worked together to perform a variety of tests, from data access and analytics patterns, to measures of scalability and performance. The engagement validated the interoperability of Couchbase Analytics and ECS—which would serve as the enterprise data lake. Additionally, it confirmed that the Couchbase Massive Parallel Processing (MPP) and ECS scale-out architectures both allowed for linear performance scaling. This functionality enabled the retail organization to grow their on-premises footprint while maintaining greater control over their data and reducing overall TCO.

Take the next step

Please contact your Dell EMC sales representative or authorized reseller to learn more about ECS and how it can benefit your organization. Also check out the [ECS website](#) for more information on how ECS unlocks the value of unstructured data.

¹Economic Benefit Analysis of On-premises Object Storage Versus Public Cloud, ESG: by Tony Palmer and Scott Sinclair, February 2019



Learn more about Dell EMC ECS solutions



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