

# Analytics for JSON

MEASURE REAL-TIME BUSINESS OPERATIONS TO DERIVE INSIGHTS,  
MAKE AGILE DECISIONS, AND EXPAND GROWTH

## Key benefits

- Real-time insights without ETL on operational data with zero downtime
- Isolate operational applications from analytical workloads
- Quickly and easily visualize JSON data using Tableau in real-time
- Combine and analyze data from multiple Couchbase clusters and data lakes to reduce time to insight and TCO
- Model enterprise database designs using collections and scopes

## Unable to get critical, real-time insights?

Organizations need to unlock insights in real-time from their Couchbase operational data. With disconnected operational and analytical systems, ETL processes can take weeks or months. Changes in business applications impact the underlying data attributes and schemas. As a result, businesses are unable to derive insights and make timely decisions.

**Solution:** The Couchbase Analytics Service allows the analysis of real-time data “in-place” without ETL, from one or more Couchbase clusters and object stores.

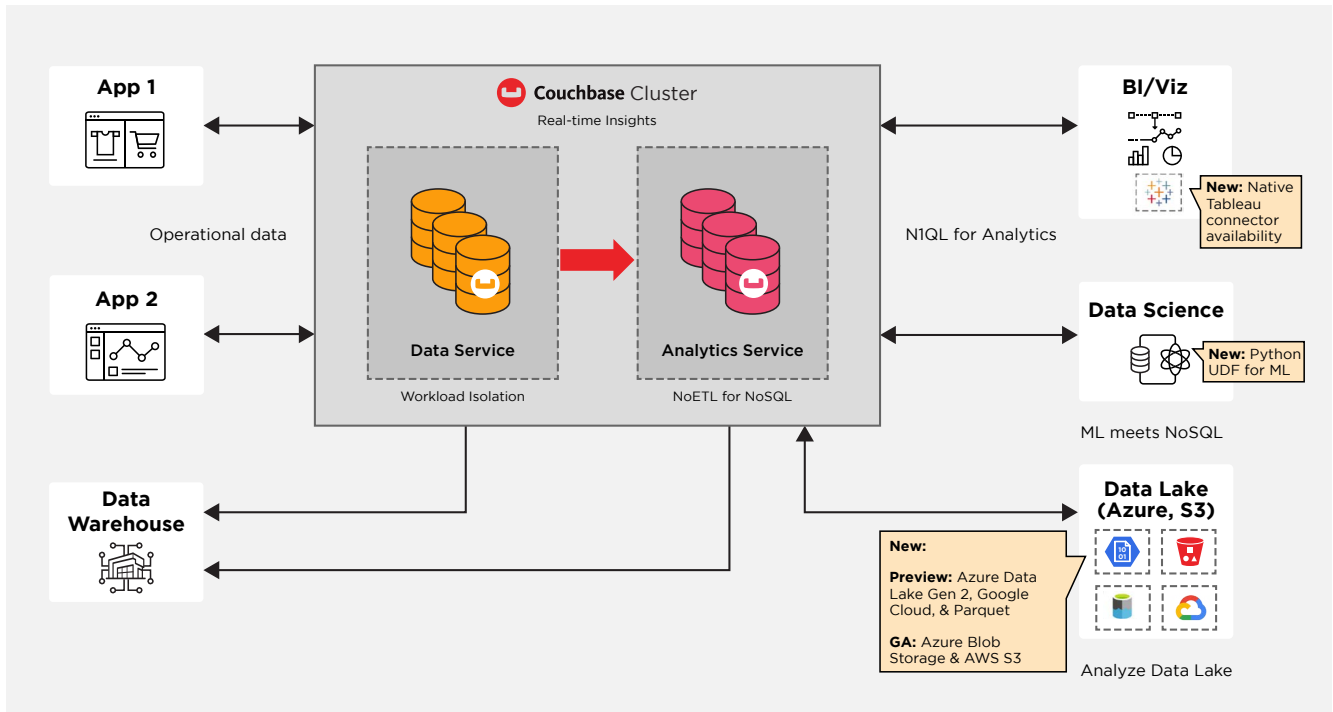
IT architectures require an additional analytics layer to perform analytics on JSON data which is complex and hard to manage. However, modern analytical databases are required to be efficient, fast, and flexible. They must adapt to changes in the data structures without redesigning data warehouse schemas using query languages like SQL.

**Solution:** The Couchbase Analytics Service enables developers to query and analyze JSON data using SQL++ (SQL for JSON) with no need for predefined schemas or transformations.

## Address operational and analytical workloads in a single database platform

Organizations need the flexibility to manage their analytical workloads alongside their operational workloads. They require a hybrid environment where NoSQL users can run ad hoc analytical queries on operational data using an MPP query engine — without impacting operational application performance.

**Solution:** The Couchbase Analytics Service lets administrators add the service to an existing cluster or create a dedicated Analytics cluster in a high-availability environment.



## Key features

- Massively Parallel Processing architecture for fast complex query execution
- User-specified subsetting of operational data
- Powerful, intuitive SQL like SQL++ query capabilities, including Window, Rollup and Cube functions
- Remote Links to other clusters and External Datasets for S3 and Azure blob storage data
- Use scopes and collections to model RDBMS concepts
- Create User Defined Functions to reuse and streamline queries
- Derive visual insights with Tableau using Couchbase's native connector

The Couchbase Analytics Service supports rapid continuous ingestion of operational data, making it immediately available for analytical queries. As data is made available, there is no waiting for ETL processes to prepare data for analysis. The immediate availability of data for analytical processing and the ability to query JSON data without transformation, reduces the time to insight for businesses. This allows business users to explore data and perform complex joins and aggregations without having to prepare covering indexes, data cubes, etc.

## Organize Couchbase data using scopes and collections

Scopes and collections can be used to model data in a Couchbase NoSQL database much like schemas and tables/ views are used in the relational world. Collections correspond to relational tables, and scopes can organize data like schemas. The relational world is now available in NoSQL! Transitioning has never been simpler.



## Reduce complexity for developers, data analysts, data engineers and DevOps alike

### UNMATCHED AGILITY AND FLEXIBILITY

Faster time to insight by making operational data available for analytical processing in near-real-time and visualize results in BI tools like Tableau using the Couchbase Analytics native connector. Eliminate the need to maintain a separate analytics infrastructure to reduce the total cost of ownership (TCO).

### UNPARALLELED PERFORMANCE AT ANY SCALE

Run analytical queries at any scale with an MPP engine that scales linearly, and with the flexibility to add capacity on demand. Apply parallel query execution to both Couchbase-resident data and data in S3.

### EASIEST PLATFORM TO MANAGE

Unify and manage hybrid operational and analytical processing (HOAP) workloads within a single Couchbase cluster. Add new Analytics nodes as needed in less than five clicks. Configure remote links and external datasets with ease as well.

## Learn more

To learn more, contact your Couchbase sales representative today or visit:

[www.couchbase.com/products/analytics](http://www.couchbase.com/products/analytics)  
[www.couchbase.com/SQL++-for-analytics](http://www.couchbase.com/SQL++-for-analytics)



Analyze game data in real-time and share with fans through custom applications

**“The functionality we’ve built with Couchbase allows us to do things at speed, in real-time with analytics in the background at the same time that older technologies could never do. Our future is bright for engaging with fans in ways we haven’t in the past.”**

— STEVEN WYANT, Enterprise Data Architect





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).

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