



# Couchbase Capella App Services

**BUILD GenAI APPS FASTER AND CONNECT TO YOUR DATA ANYWHERE WITHOUT MANAGING BACKEND SERVERS**

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## Key benefits

- Enterprise class distributed cloud database (hosted or self-managed)
- Developer friendly embedded database for mobile and IoT apps
- Support for iOS, Android, .Net, Java, C-api for custom embedded devices
- SQL support and vector search from cloud to edge
- Bidirectional data sync between the cloud and edge devices
- Always on experience even without network availability
- Scale from hundreds to millions of users
- Built-in enterprise grade security to safeguard data

## Build fast, reliable, secure AI-powered edge apps

Couchbase Capella App Services provides a fully managed backend designed for mobile, IoT, and edge apps. Developers use App Services to securely access and sync data between the Capella DBaaS (database-as-a-service) and edge devices, as well as to authenticate and manage app users. With powerful features like offline-first data access, peer-to-peer sync and automatic conflict resolution, App Services enables developers to build apps that meet any speed or availability requirement. Take advantage of built-in efficiencies such as filters and channels to route data with precision, and delta sync to sync only data that has changed.

With support for key-value, SQL, vector search, full-text search, scopes and collections, predictive queries that leverage machine learning models, and asynchronous eventing capabilities, Couchbase Mobile allows developers to build AI-powered user experiences that run right within mobile and edge apps. Built-in data synchronization, end-to-end data encryption, and fine-grained access control ensure privacy and security. Couchbase Mobile plugs right into your AI ecosystem, allowing you to call local or remote ML and LLM models for GenAI features within your apps.

App Services' built-in sync and embedded database make it easy to deliver apps that are always fast and always-on with guaranteed data availability, even where network connectivity is intermittent or unavailable.





Quantic leverages Capella App Services for automatic offline sync capabilities and an always-on experience for its Point-of-Sale systems.

## Architecture

### COUCHBASE LITE

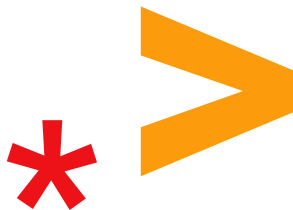
A lightweight embedded NoSQL JSON document database that enables offline-first apps with key-value, query, vector search, full-text search, eventing, and database encryption capabilities.

### CAPELLA APP SERVICES

A fully managed secure gateway for synchronization of data between the edge devices and the backend data store.

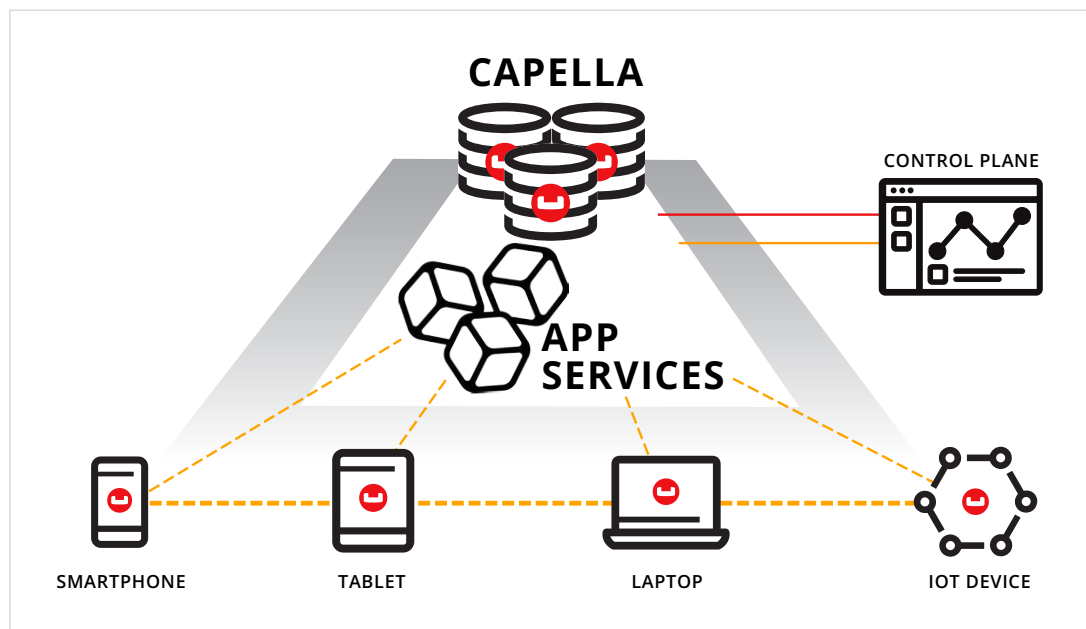
### COUCHBASE CAPELLA

A fully managed, distributed NoSQL JSON document database in the cloud with support for SQL, vector search and analytics.



## Key enablers

- Ability to securely store and process data locally embedded within devices. Guarantee real-time responsiveness and business uptime and eliminate network dependencies.
- Ability to securely sync data from Capella DBaaS to edge devices. Leverage comprehensive sync technology to guarantee data integrity.
- Ability to operate in environments with low/no internet connectivity for extended periods of time. Guarantee an always-on experience for users.



## COUCHBASE MOBILE CUSTOMERS



Always on package pickup app

**TOMMY HILFIGER**

Retail digital showroom app



Transforms patient experience



**SYNCTHINK®**

Gaining new insights in brain injury

## ENTERPRISE-GRADE SECURITY

Safeguard data and alleviate privacy concerns with built-in enterprise-grade encryption at rest and in transit.

## SPEED AND RESPONSIVENESS

Guaranteed low latency and sub-millisecond data access times, regardless of internet bandwidth.

## AI SUPPORT

Vector search in the cloud database as well as on-device enables semantic and similarity search, as well as LLM integration and RAG from cloud to edge. Run AI locally against data in your local database for privacy.

## UNPARALLELED PERFORMANCE AT ANY SCALE

Deliver an always-on experience even with spotty networks and dropped connections. Scale from hundreds to millions of users with the flexibility to add capacity at the client tier (Couchbase Lite), middle tier (App Services), and storage tier (Capella DBaaS).

## EASE OF MANAGEMENT

Safeguard data with built-in enterprise-grade security for the full stack. Encrypt data at rest as well as in transit. Apply fine-grained access control policies to ensure that only authorized users have access to relevant subsets of data.

## LEARN MORE

To learn more, contact your Couchbase sales representative today or visit: [www.couchbase.com/products/capella/app-services](http://www.couchbase.com/products/capella/app-services)

## TRY CAPELLA FREE

[www.cloud.couchbase.com/sign-up](http://www.cloud.couchbase.com/sign-up)



Modern customer experiences need a flexible database platform that can power applications spanning from cloud to edge and everything in between. Couchbase's mission is to simplify how developers and architects develop, deploy and run modern applications wherever they are. We have reimagined the database with our fast, flexible and affordable cloud database platform Capella, allowing organizations to quickly build applications that deliver premium experiences to their customers – all with best-in-class price performance. More than 30% of the Fortune 100 trust Couchbase to power their modern applications. For more information, visit [www.couchbase.com](http://www.couchbase.com) and follow us on X (formerly Twitter) @couchbase.

