IOT DATA MANAGEMENT
Manage the edge at scale

Couchbase
NoEQUAL

Key benefits

- Simplify the management of IoT data and devices

- Manage business-critical data from one platform

- Sync and secure data seamlessly from the cloud to the edge

"We're on a mission to create unique and personalized digital care experiences. We want to empower the patient to take control of their health and improve their outcome. We're building client experiences on top of a common platform. The platform comes first. Scalability needs to be there, and then we'll build out experiences on top of it… Part of our decision to go with Couchbase was the ability to scale our content globally."

– Bryan Memmelaar
  Head of Software
  Development

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Connected architectures can't solve for the IoT data explosion

The explosion of data generated from devices and machines at the edge requires a data management solution that can manage those systems as well as capture and sync data securely. However, today's solutions that rely on connected architectures (such as RESTful Web Services) do not meet the availability, performance, and security needs of today's IoT applications.

Manage, support, and drive real-time data insights at the edge

Built on the most powerful NoSQL technology, the Couchbase Data Platform provides full-featured embedded and cloud databases, seamless sync from cloud to edge, big data integrations, and guaranteed data availability, irrespective of network connectivity.

Components of an IoT data management solution

Operational dashboarding

Use Couchbase to query, aggregate, and report on operational statistics across users, sessions, and jobs in real time for dashboards, alerts, trends, and incident management.

High availability and fast ingestion of data

With a memory-centric architecture, integrated cache, and global replication, Couchbase delivers the high data throughput, availability, and ingestion required for IoT applications.

Endpoint/device management

With Couchbase, manage devices and applications that are running millions of endpoints and scale to support any number of users. With data locally on the device, you can sync updates automatically in the background when the network is available, enabling a faster, more seamless IoT data management solution.

Big data integration

By integrating with big data technologies like Hadoop, Spark, and Kafka, you can accelerate your IoT workloads, continuously stream your IoT data, and add ETL, analytics, and machine learning to your IoT applications.
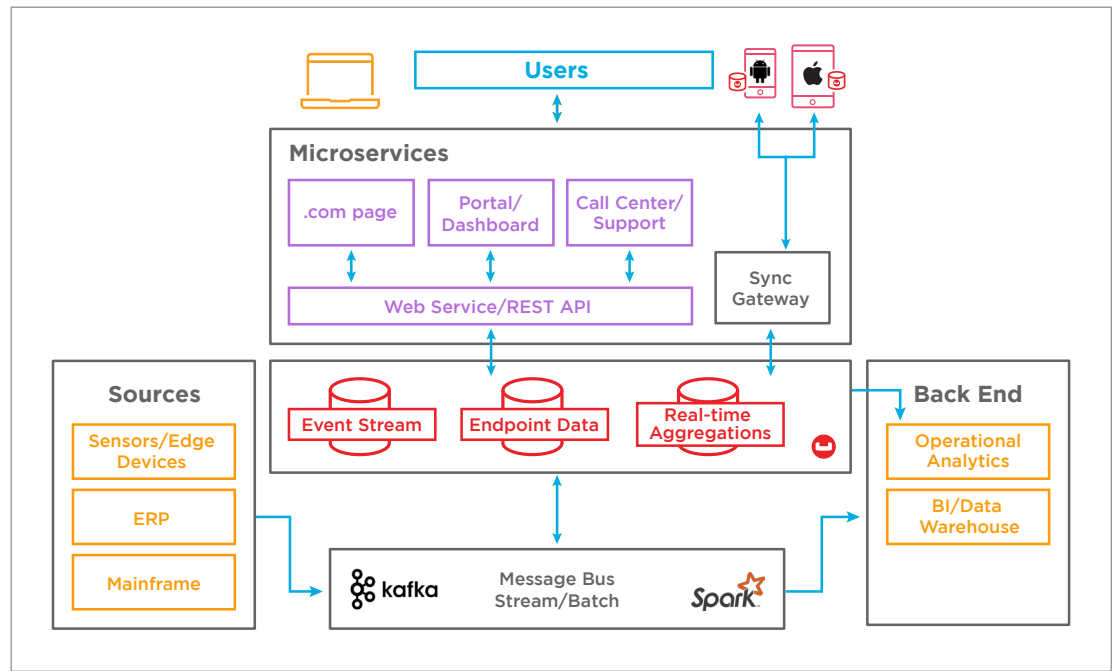
Figure 1: Example IoT application architecture with the Couchbase Data Platform

Couchbase powers IoT data management solutions

Simplify and scale IoT data management

Eliminate database sprawl with one single platform that spans IoT applications and devices. Couchbase manages and syncs IoT data from any cloud to every edge, allowing you to capture billions of data points and scale to support any number of endpoints.

Ensure always-on availability and connectivity

Capture massive amounts of unstructured IoT data at the edge with a flexible data model and ensure seamless data sharing across users and devices, online and offline with fast, efficient bidirectional data sync from the edge to the cloud.

Secure edge data with ease

Safeguard your company's IoT data with built-in enterprise-grade security from cloud to edge. With Couchbase, you can manage access control and maintain security of your data, even at the edge.

Learn more

To learn more, contact your Couchbase sales representative today or visit:
couchbase.com/solutions/iot | couchbase.com/downloads

About Couchbase

Unlike other NoSQL databases, Couchbase provides an enterprise-class, multicloud to edge database that offers the robust capabilities required for business-critical applications on a highly scalable and available platform. Couchbase is built on open standards, combining the best of NoSQL with the power and familiarity of SQL, to simplify the transition from mainframe and relational databases.

Couchbase has become pervasive in our everyday lives; our customers include industry leaders Amadeus, American Express, Carrefour, Cisco, Comcast/Sky, Disney, eBay, LinkedIn, Marriott, Tesco, Tommy Hilfiger, United, Verizon, as well as hundreds of other household names. For more information, visit www.couchbase.com.

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Provides real-time patient/doctor diabetic health data with smart health devices like insulin shots

verizon√

Enables real-time dashboards, reports, notifications, and alerts for 3.5M ops/s on Verizon ThingSpace, an IoT development platform

COYOTE

Provides real-time road information and alerts to 50M users via apps and embedded systems

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