

AutoCrib increases productivity and cuts costs with offline-first inventory management

AutoCrib is a leading manufacturer of customizable industrial vending machines that distribute tools, personal protective equipment, and other work supplies at customer worksites. Used by some of the biggest names in the Fortune 500, these vending machines are part of an inventory management solution that helps businesses slash inventory expenses, increase worker productivity, and automate the procurement process.



Challenges

- Remote vending machine apps couldn't sync properly when internet connections were unreliable
- Customers were frustrated with inconsistent and outdated inventory data caused by syncing issues
- Difficult to integrate NoSQL and relational data for different systems

Outcomes

- Offline-first apps work seamlessly even with poor internet connectivity, and Sync Gateway automatically syncs when connections become available
- Couchbase Lite embeds data processing directly into the apps that run on vending machines
- MOLO17's Gluesync provides real-time bi-directional data replication between Couchbase and SQL Server

Industry

- [High Tech](#)
- [Manufacturing & Logistics](#)

Customer application

- Industrial inventory management

Use case

- [Product catalog](#)
- [Field Service](#)

Product

- [Couchbase server](#)
- [Couchbase mobile](#)

Partner

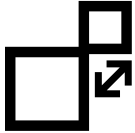
- MOLO17 - Gluesync



"Couchbase's unique offline-first capabilities let us keep our customers' work supply inventories accurate and up to date by pulling data from every corner of the workplace, even from remote areas where the internet is unreliable at best."

— **Joseph Cordasco**, Product Owner, Autocrib

By using conveniently located industrial vending machines, AutoCrib's customers can skip lengthy procurement processes and instantly provide their employees with the tools and equipment they need to work at peak efficiency. Together, AutoCrib's vending machines and integrated inventory management solutions help customers minimize asset loss, maximize productivity, and lower costs.



THE CHALLENGE: **Offline apps caused inaccurate inventory data**

To work properly, AutoCrib's systems must sync and reconcile inventory at every touchpoint in a timely manner. Prior to adopting Couchbase, many vending machines located deep in factories or at remote construction sites often lost internet connectivity and were regularly unable to write updates to the backend cloud database. As a result, inventory data was often inconsistent and outdated, and customers were becoming frustrated.

To address the issues caused by poor connectivity, AutoCrib needed a way to enable their vending machines to operate and record transactions continuously, even without the internet.

Another key requirement for AutoCrib was the ability to seamlessly integrate their IoT data with their ERP system. Changes in either system needed to be instantly reflected in the other, but this could have been complicated to achieve because the inventory solution would be running on Couchbase's NoSQL database while the ERP solution was running on a Microsoft SQL Server relational database.



THE SOLUTION: **Offline-first operations at the edge**

Couchbase's NoSQL cloud-to-edge JSON document database platform provides a powerful offline-first solution that was able to meet all AutoCrib's requirements. With embedded data processing and built-in data sync, Couchbase was a perfect fit for the company's many IoT applications that operate in remote areas with unreliable internet.

The foundation of the Couchbase solution is Couchbase Server, which provides AutoCrib with unparalleled performance at any scale and runs on premises and in the cloud. AutoCrib uses Couchbase Lite, a full-featured NoSQL embedded database, to embed data processing directly into the apps that run on the company's vending machines. Couchbase Lite enables the vending machines to conduct transactions and update inventory in real time regardless of internet connectivity.



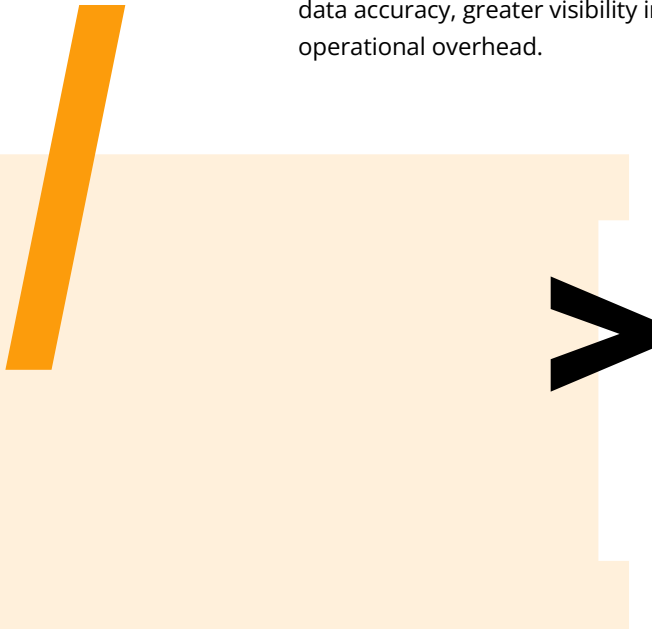
AutoCrib also uses Couchbase's Sync Gateway to automate bidirectional data sync between the cloud and the Couchbase Lite databases embedded on customer vending machines. Whenever connectivity is available – even for a split second – Couchbase securely syncs the latest inventory data between the cloud and individual vending machines to ensure accuracy and consistency across all touch points at all times.

Gluing it all together

To achieve a seamless connection between Couchbase and Microsoft SQL Server, AutoCrib turned to Couchbase's longtime partner MOLO17 and their powerful Gluesync solution. MOLO17 specializes in using NoSQL data for enterprise apps, and Gluesync is their proven solution for providing bi-directional, real-time, and very low latency data replication between any major relational database and NoSQL. Gluesync uses a unique container-based architecture that makes it easy to deploy, saving AutoCrib at least a year of development time versus building their own integration.

The Couchbase advantage today and tomorrow

With the ability to store and process data locally on vending machine apps and automatically sync from cloud to edge, AutoCrib can now provide customers reliable data accuracy, greater visibility into inventory, increased productivity, and lower operational overhead.



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.

