

# Creating Fast, Efficient Experiences for Crews and Customers



United relies on a crew of 41,000+ pilots, flight attendants, and flight schedulers to operate over 1.5 million flights a year on a tight schedule. Because their crew scheduling application was cumbersome to use and difficult to change, United decided to modernize their technology using Couchbase Server and Couchbase Mobile. After they successfully streamlined work processes and simplified data management, United continued using Couchbase to update more of their business-critical applications, including their online and mobile booking apps.

## Challenges

- Crew scheduling software was outdated and difficult to use and maintain
- Slightest downtime or data inaccuracies could cause major flight delays
- Needed consistent, up-to-date data worldwide for crew scheduling and booking
- Wanted flexibility to operate in the AWS and Azure clouds

## Outcomes

- Simple, streamlined support for a highly mobile workforce
- Multiple nodes support critical operations by preventing data loss and system outages
- Cross data center replication provides out-of-the-box replication capabilities
- Cloud-native Couchbase is easy to deploy and manage in all the popular clouds

## Industry

- [Travel & Hospitality](#)

## Customer application

- Crew scheduling
- Online and mobile flight booking

## Use case

- Caching and session management

## Product

- [Couchbase Server](#)
- [Couchbase Mobile](#)

## Key features

- SQL++
- Mobile
- In-memory/caching
- XDCR

## Cloud provider

- AWS



**“Couchbase provides a seamless customer experience, which you can’t put a price on. We have no downtime and the performance is very good.”**

— Rasheed Kazmi , IT Delivery Manager, United Airlines

As the travel and hospitality industry becomes increasingly reliant on digital platforms, mobile apps, and real-time engagement data, companies in this sector face unique challenges related to scaling their applications, providing seamless customer experiences, and managing global operations. Couchbase is uniquely positioned to help travel and hospitality companies enhance their customer-facing applications to meet these demands.

Previously, United Airlines' crew scheduling application was unusable when out of range of a reliable internet connection. These issues caused confusion and delays in a critical process where accuracy and timeliness were required. United turned to Couchbase on Amazon Web Services (AWS) and Couchbase Mobile to modernize its business-critical crew scheduling application. This made the application faster and more reliable through embedded data processing and automatic synchronization. Now it works anywhere, regardless of internet connectivity, and the scalable backend combined with on-device data processing means United maintains near 100% uptime – important for a global carrier to maintain the best possible on-time record. The improvements to the app were so successful, United continued using Couchbase to update more of their business-critical applications, including their online and mobile booking apps.

Couchbase's distributed architecture and in-memory caching along with AWS EC2 provide the scalable computing resources needed to support high performance and availability for United's applications even during peak times. The airline also leverages S3 to keep data safe, available, and accessible. Both EC2 and S3 help keep costs down as United only pays for the computing resources it actually uses.



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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\*\*](https://www.couchbase.com) and follow us on X (formerly Twitter) @couchbase.

