



# Yondu achieves a 25% increase in sales and 24x faster inventory updates with Couchbase

**Yondu, Inc.** is a trusted IT solutions company owned by Globe Telecom that empowers businesses to thrive in the digital economy. With expertise in custom development, managed services, and proprietary products, Yondu delivers innovative technology solutions to help industries scale and adapt in an increasingly connected world.

## Challenges

- Needed a NoSQL implementation that could support high availability and a high traffic system
- Inventory data wasn't being updated quickly enough, resulting in a subpar customer experience and major strain on the database
- Website experienced numerous timeouts when querying the database, resulting in abandoned orders

## Outcomes

- 30 minutes to update inventory data versus 12 hours previously
- 20% reduction in website maintenance incident reports and 25% increase in sales due to fewer abandoned orders
- 10-15% increase in registrations for retail buyers ordering on the website

## Industry

- [High Tech](#)

## Customer application

- Vessell – inventory management system for retailers

## Use case

- [Product Catalog](#)

## Product

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

## Key Features

- [SQL++](#)
- [In-Memory/Caching](#)
- [Multidimensional Scaling \(MDS\)](#)

## Cloud Partner

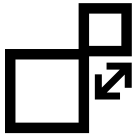
- [AWS](#)



**“Switching to Couchbase increased performance while lowering database and operational costs. This has a direct impact on our business revenue. Faster querying, SQL++ familiarity for developers, and real-time dashboarding for analytics were also key factors for choosing Couchbase.”**

— Jeremy Badong, Program Director, Yondu, Inc.

One of Yondu's internally built products for sale in the retail market, Vessell, was originally an e-commerce platform that has since pivoted to an inventory management system. Vessell provides customer relationship management (CRM), project management, analytics, and reporting capabilities for clients.



## THE CHALLENGE: INCREASE PERFORMANCE WHILE REDUCING DATABASE AND OPERATIONAL COSTS

Yondu needed a NoSQL implementation in place for one of its biggest clients, a large retail chain in the Philippines, that required high availability and was a high-traffic system. A key challenge for retail businesses is managing inventory data across e-commerce, mobile, and brick-and-mortar stores. When inventory data isn't updated in real-time, there are a couple of pressing issues that arise. Customers may be told an item is available when it's actually sold out, resulting in overselling or underselling, refund processes, and dissatisfied customers who feel misled by inaccurate product availability information. Additionally, pricing data can be outdated, resulting in inconsistent pricing that can lead to confused and frustrated customers and ultimately result in potential revenue loss for the business.

Yondu's journey began with a cloud-based database solution that addressed the initial application needs. Over time, as its operations grew and resource demands became more complex, the company opted to transition to a platform that could meet its scalability and performance objectives, as well as driving down database and platform costs. The retail chain was encountering delays in the processing of SKUs. The inventory information would need to be uploaded at a specific time during the day, and then continue to be updated throughout the day as price changes occurred. Each store had its own SKUs and pricing, adding complexity to the updates and putting a major strain on the database.

Due to the latency of accessing the database, making these updates took half the day, finishing just in time for the next update to start. This meant that updating prices and inventory was constantly taking place, and was often out of date until updates could be completed. The retail chain also sells B2B, which has an even bigger impact when dealing with bulk orders. The website experienced numerous timeouts when querying the database, negatively impacting the customer experience. It's crucial to have website load times be as fast as possible to encourage procurement people to complete their bulk orders.





## THE SOLUTION: AN OFFLINE-FIRST NOSQL DATABASE WITH HIGH AVAILABILITY AND ENHANCED PERFORMANCE

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Yondu knew the current solution wasn't sustainable, and needed to find a database with increased performance so that pricing and inventory updates would be reflected as quickly as possible. "Price data is sensitive, so there has to be an audit trail for every update for the stores. With 50,000 SKUs per site across 60 stores we accumulate big data logs for every single update. We had to find a way to move this data to different databases," said Jeremy Badong, Program Director at Yondu, Inc.

To address these challenges, Yondu migrated to Couchbase on Alibaba, including both internal and client applications. There were a variety of reasons why Yondu decided to switch to Couchbase including reduced TCO, performance in-memory, offline capabilities, and multidimensional scaling.

"Switching to Couchbase increased performance while lowering database and operational costs. This has a direct impact on our business revenue. Faster querying, SQL++ familiarity for developers, and real-time dashboarding for analytics were also key factors for choosing Couchbase," continued Badong.

To streamline the migration process, Yondu used Capella iQ. "Capella iQ played a key role during our workload migrations. We just fed all the existing SQL and No SQL Mongo queries into Capella iQ, and it automatically converted and optimized them based on Couchbase query format for maximum performance. It was very useful, we are looking to use it for further opportunities to migrate NoSQL systems into Couchbase," added Badong.



## THE RESULTS: ENHANCED PERFORMANCE WITH A 25% INCREASE IN SALES

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Previously, customers would search for products across the retail chain's website and encounter latencies and timeouts, as the database struggled to retrieve the inventory data from the customer management system. After switching to Couchbase, the retrieval of the product list is much faster and consistent. Inventory data is updated every 30 minutes versus the 12 hours it used to take. Yondu is continuing to work towards its goal of bringing this down to a mere 15 minutes per update.

With this increase in speed and availability, inventory data is much more accurate and the customer experience is significantly improved. Yondu has seen a 20% reduction in incident reports on website maintenance due to timing out of the system, directly reducing the burden on its support team. Less timeouts on the website directly lead to fewer abandoned orders, resulting in a 25% increase in sales. There has been a 10-15% increase in registrations for retail buyers ordering on the website.



Yondu is also supporting another client, a restaurant chain, with Vessell. The restaurant chain chose Couchbase Capella on Amazon Web Services (AWS) for its flexibility and scalability. Amazon's EC2 provides the flexibility for handling varying load levels, scaling up and down as needed to best utilize the resources of the database. Capella customers leverage S3 object storage to keep Capella data safe, available, and accessible.

In the future, Yondu is looking to integrate artificial intelligence (AI) features into Vessell. This will make the platform a smart digital e-commerce system, with stock forecasting and automation of features. The company also has an integrated analytics dashboard with ChatGPT – to get visualizations, output reports, and insights based on the data stored in the database. With Couchbase, Yondu now has confidence in its ability to support higher future workloads with existing and new clients while scaling Vessel worldwide.



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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.

