

Quantic saves priceless developer time, achieves 50% faster querying with Couchbase Capella™

## Industry

- [High Tech](#)

## Customer application

- Cloud-based POS platform

## Use case

- [Field service](#)
- [IoT data management](#)

## Product

- [Couchbase Capella](#)

## Key features

- SQL++
- JSON
- NoSQL architecture
- Multi-dimensional scaling

## Cloud provider

- [AWS](#)



Quantic is a fast-growing startup on a mission to help small and medium-sized businesses streamline their operations by

using a full-featured cloud-based point of sale (POS) platform. When Quantic outgrew its original database, it turned to Couchbase Capella™ DBaaS for a simple yet powerful way to keep pace with an expanding number of customers, products, and features. Capella provides easy scalability along with automatic offline sync capabilities and an always-on experience for users.

## CHALLENGES

- Find a database with real-time sync that can rapidly scale to keep pace with a growing customer base
- Eliminate downtime issues that create poor user experiences for clients and clients' customers
- Reduce database management so the development team can focus on product enhancements

## OUTCOMES

- Capella's powerful offline sync capabilities paired with the flexibility of JSON and SQL++ deliver an always-on, always-fast user experience
- Quantic can provide instant updates and a seamless end-user experience while reducing query time by 50%
- A fully managed DBaaS and significantly faster indexing lighten the workload for developers, saves time, and reduces costs

“Capella’s impressive price performance and unique edge capabilities give our developer team a more agile experience and allow our clients’ applications to remain synced, even during internet outages.”

— VIGYAN KAUSHIK  
Co-founder and CEO, Quantic

## QUANTIC®

“If we had to make our own solution from scratch, the investment would be significant. The database, syncing, and storage cost wouldn’t be worth it for a business trying to scale.”

— ARNAV KAUSHIK

Technical Director, Quantic



In the beginning, Quantic’s founders were focused primarily on restaurant operations and writing software for their own use. They weren’t initially planning for their software to become a standalone product, but by 2015 the demand from other restaurants was so high that they decided to roll it out. Since then, Quantic has expanded to service retailers, grocery stores, hotels, mini marts, gift shops, car washes, and other businesses. As its customer base expanded, Quantic had to navigate a wide variety of different rules, regulations, and workflows for the different industries it serviced.

### THE CHALLENGE: APPLICATIONS SCALING FASTER THAN THE DATABASE COULD HANDLE

As Quantic’s business expanded to hundreds of clients, its applications needed to scale beyond the capabilities of the existing database. Quantic needed to provide customers with real-time sync capabilities that its database didn’t support. And Quantic was also dealing with unplanned downtime that impacted the experience of its clients and clients’ customers.

“As our customer portfolio expanded, we quickly realized that the database we had in place before Couchbase wasn’t getting the job done,” explained Vigyan Kaushik, Quantic’s co-founder and CEO. “It couldn’t scale at the enterprise level, and managing all of our clusters placed a huge strain on developers.”

Developers were forced to spend too much time dealing with complex database management issues, and the result was a siloed platform that hindered innovation. It soon became clear that Quantic needed a more powerful database that was easier to scale and manage.

### THE SOLUTION: CAPELLA PROVIDES ALWAYS-ON AND ALWAYS-FAST EXPERIENCES

After a competitive evaluation, Quantic selected Couchbase Capella on AWS for high performance, superior multi-dimensional scalability, and a flexible NoSQL architecture that developers found familiar and easy to use.

“Building a database to support our needs in-house was out of the question because of the required costs, time, and talent,” said Vigyan Kaushik. “After spending time with Couchbase Capella, it was easy to nail it down as our primary solution. Capella’s impressive price performance and unique edge capabilities give our developer team a more agile experience and allow our clients’ applications to remain synced, even during internet outages.”

Couchbase helped to make life easier for Quantic's clients in other ways too. "As a small business owner, you need assistance with some decision making," explained Vigyan Kaushik. "Our clients are using the database's AI decision-making process to help them grow their businesses. For example, which days to offer specials based on past sales data. All this data is stored within Couchbase."

Quantic now uses Couchbase to power a variety of use cases, including tableside order placement and payment, customer management, couponing, QR codes, loyalty programs, and fast checkout.

## THE RESULTS: SEAMLESS END-USER EXPERIENCES WITH REAL-TIME DATA

After adopting Capella, Quantic saw an immediate impact on its business. Most of Quantic's applications need to function in real time, which requires a fast data syncing mechanism. Capella reliably provides the instant updates and seamless end-user experiences that are needed. Now, users have fast, uninterrupted access to data that has been aggregated over short or long periods.

"We've noticed that indexing has been significantly faster, which has made a substantial impact on our reporting," said Vigyan Kaushik. "In some instances the query time has been cut by 50% for end users."

Capella has also proven to be a cost-effective solution for Quantic. "Capella provides better price performance," said Arnav Kaushik, Technical Director at Quantic. "If we had to make our own solution from scratch, the investment would be significant. The database, syncing, and storage cost wouldn't be worth it for a business trying to scale. We didn't want to spend priceless developer time when a better solution is already available."

## THE FUTURE

In 2022 Quantic developed a new white-label POS platform product that allows other vendors to sell Quantic's services as their own. This white-label platform offers a variety of processor-agnostic POS software solutions for partnership across many industries.

"We did the heavy lifting and then white-labeled the platform," said Vigyan Kaushik. "It's a way for us to expand our POS system, while at the same time helping our partners expand their brands."

Quantic's white-label clients receive an omnichannel experience that connects front and back ends without any binding contracts or hidden fees. The applications are built into multiple clusters and servers based on customer locations to ensure a high level of reliability and availability.

"The bigger we grow, the bigger the workloads that Couchbase will be managing for us," said Vigyan Kaushik. "Capella can withstand this increased load and scale, and it's in our best interest to continue building this partnership for the long term. We're excited for the future."