

Maximizing performance and improving the user experience while reducing TCO

Wallbid is a world-class embedded insurance enabler. The Wallbid platform is a full-stack insurance distribution platform that integrates new-generation insurance products into any digital ecosystem, enriching the customer's digital experience with easily accessible, personalized, and affordable insurance solutions in a matter of weeks, not months. The company's disruptive, scalable technology is embedded into web apps, mobile apps, and in-store systems to deliver insurance products exactly when customers need them, in any country, language, or currency.

Challenges

- Needed a database that could deploy, scale, and sync in various regions while meeting the highest security standards
- Required a high performing database to meet response time requirements
- Create a consolidated tech stack to reduce time spent managing tools and allow the team to focus on the core business

Outcomes

- Couchbase Capella™ provides the performance and scalability for a fast and seamless user experience
- Thousands of requests per second are served almost instantly
- Lowered TCO and reduced database management by consolidating the technology stack

Industry

- [Financial Services](#)

Customer application

- Embedded insurance platform

Use case

- [Caching and Session Management](#)

Product

- [Couchbase Capella](#)

Key features

- In-Memory / Caching
- SQL++

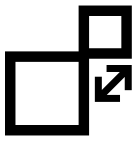
Cloud provider

- [Microsoft Azure](#)



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— Spiros Tzoras, Lead Backend Engineer, Wallbid.io



THE CHALLENGE: MAXIMIZE PERFORMANCE AND SCALABILITY WHILE REDUCING COST

Wallbid's mission is to bring together insurers and distributors – introducing new services in an automated way. With Wallbid, customers are able to supplement their transactions with insurance coverage within various verticals, including travel and hospitality, banking, retail, and more.

Embedded insurance is a type of insurance that is seamlessly integrated into a customer's buying experience, whether it be through a product, service, or platform. Traditionally, insurance involved salespeople and customer questionnaires – which was difficult to scale. With embedded insurance, insurers are able to address customers' needs more efficiently by offering the right insurance at the exact point of need.

One example of this is travel insurance when booking a hotel reservation. If the room isn't refundable, the hotel can offer an option for the traveler to book insurance with their reservation. If a family member gets sick or the flight gets canceled, the traveler could get their money refunded. Insurance transactions can also be supplemented in other industries, such as purchasing a cellphone from an online retailer or concert tickets.

Wallbid sits in the middle of these interactions – integrating with the insurance system and helping automate data collection and the communication the customer receives. Wallbid collects the data necessary to create the insurance policy for the customer.

“The main idea is to help the distributor embed insurance coverages into existing user journeys without having to contact, negotiate, and interact with the insurance company – because we believe these are two different worlds,” said Spiros Tzoras, Lead Backend Engineer at Wallbid.io.

Most insurance companies have outdated technology. Wallbid takes care of everything on the backend for the distributors, making it easy for them to create an additional revenue stream from their existing customer base. “We have a widget that can support all kinds of services for the distributor. The goal here is an easy way for the user to enter the data that the insurance company needs to issue the policy. This application can happen on a Wallbid hosted website or can be embedded on the distributor's website and connected through an API,” said Tzoras.

Wallbid's platform also has a B2B portal, called the “Wallbid Policy Center,” where customers can see all of their insurance bookings in one place. Providing this type of functionality would be a huge opportunity cost for the distributor if they tried to implement it themselves. Wallbid helps them add the functionality easily – so that they can stick to their core business – while bringing additional value to their customers.

When evaluating solutions, Wallbid needed a database that could deploy, scale, and sync in various regions while meeting the highest security standards. Relational databases are much more difficult to keep the schema the same and involve more management effort. If Wallbid had chosen a relational database structure, this would need more time to add new features to the application. Also scaling up a relational database is not a trivial task.





THE SOLUTION: ADAPTING FASTER TO CLIENT NEEDS WITH A SIMPLIFIED TECH STACK

To maximize performance, Wallbid selected Couchbase's NoSQL database as the source of truth for its platform. After beginning with Enterprise Edition, the company migrated to Capella on Microsoft Azure. Couchbase's SQL++ query language enables developers to apply their existing SQL skillset to easily query and manage data stored in JSON and Couchbase's caching solution replaced Redis. There is one bucket for user data and policy records, and a separate bucket for configurations – keeping these separate helps maximize database performance. With Couchbase, all of Wallbid's configuration data can be stored in-memory, which creates an extremely fast user experience for the policy center dashboard.

Capella on Microsoft Azure was the best value in terms of functionality and cost for the company. "We selected Capella for the ease of deployment and management. Capella lets us avoid infrastructure and helps us adapt faster to our client's needs while optimizing TCO. When evaluating MongoDB, we found that it would be complicated to set up and making decisions on configuration would require an expert. Couchbase Capella was seamless – it was managed for us and the setup was easy. We don't want to be database experts, we want to stick to our business and use this tool to grow.

"We use Microsoft internally already. Choosing Azure integrates everything well and helps us streamline without bringing in another vendor. Capella on Azure is fast with great support. We can add nodes and deploy easily in various regions just by clicking a button. We can also perform upgrades with no downtime. Couchbase does all of this very well," said Tzoraz.



THE RESULTS: A FAST AND SEAMLESS USER EXPERIENCE WITH LESS THAN 1 SECOND RESPONSE TIMES

Wallbid provides significant value to both distributors and insurers, including:

For Insurers:

- Faster time-to-market
- Lower distribution costs
- Higher penetration rate
- Broader data availability

For Distributors:

- New profit streams through insurance sale commissions
- Superior customer service
- Increased customer loyalty & retention



Couchbase Capella provides the performance and scalability Wallbid needed. With embedded insurance, it is crucial to provide fast and seamless service since it's meant to be a small fraction of the user's journey. When the process is fast, it leads to a boost in revenue and a better user experience. If not, the user could be confused and ultimately abandon the original purchase altogether. Scaling is also crucial, with tens of thousands of requests coming in from different devices. The speed needs to be the same for thousands of requests, serviced in less than 1 second on average. For online responses and consumer facing requests, this requirement is less than 500ms to not delay the user journey. Capella powers the Wallbid platform to meet these requirements.

Wallbid has also experienced lower total cost of ownership and easier management by consolidating its technology stack. "Our primary use cases with Couchbase are querying JSON documents, cache synchronization, and storing binary files. Leveraging multiple vendors would have introduced significantly more complexity and cost for us, so it has been hugely beneficial to work with Couchbase," explained Tzoraz.

As the company looks to the future, its priority is to expand geographies in the United States and southeast Asia.



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 and follow us on X (formerly Twitter) @couchbase.

