

Making checkout flow smoothly for merchants and shoppers



BR-DGE is a payments technology company that powers billions of monthly global transactions for e-merchants and their customers as well as the partners in their growing payments ecosystem. BR-DGE's modular, independent payment orchestration platform is simple to integrate and adopt, enabling merchants to easily streamline payments, consolidate reporting, and speed up innovation.

BR-DGE chose Couchbase to ensure they had the modern NoSQL capabilities they needed to harness vast volumes of sensitive financial data in near real time with high availability and scalability.

Challenges

- A fiercely competitive industry where high performance and low cost are key differentiators
- Increasing complexity of managing a growing volume of diverse data
- Providing high availability and scalability to accommodate a seamless experience between merchants, consumers, and payment processors

Outcomes

- A fast and smooth payment platform that provides both merchants and consumers with cost-efficient options
- NoSQL and SQL++ give BR-DGE the flexibility to handle a wide variety of data and optimize its structure for high efficiency and performance
- XDCR protects against data center failure and provides high-performance data access for globally distributed applications

Industry

- [Financial Services](#)

Customer application

- Payments technology platform

Use case

- Customer 360
- E-payments
- Real-time analytics

Product

- [Couchbase Server](#)

Key features

- [SQL++](#)
- [Cross data center replication \(XDCR\)](#)

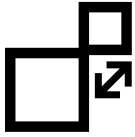
Cloud partner

- [AWS](#)



“Couchbase is the beating heart of our payment data and of all the functionality we provide to our customers. The platform has been easy to deploy and manage from the very beginning.”

— **Stuart Brand**, Platform Engineering Manager, BR-DGE



THE CHALLENGE: Streamlining a complex payment system

In the financial services sector, legacy institutions face growing competition from a field of fintech companies that offer personalized products at lower costs. BR-DGE works to give merchants greater choice, flexibility, and freedom - while ensuring the ecosystem can collaborate to promote growth on both sides.

Fintech innovation is largely driven by the ability to access and harness new forms of data. But, as this data grows in volume and variety, it becomes more complex to manage. Adding to the challenge, merchants and their customers have increasingly high expectations for the speed and performance of the applications they use to conduct business.

To guarantee its customers a user-friendly and streamlined end-to-end payment experience for their e-commerce websites, BR-DGE must harness vast volumes of sensitive financial data in near real-time with high availability and scalability.



THE SOLUTION: Fast and flexible NoSQL

BR-DGE selected Couchbase Server on AWS because of Couchbase's proven track record providing fintech companies with the flexibility, automation, and speed they need to innovate. The company also knew that Couchbase's NoSQL database would provide fast access to data and enable highly responsive applications to keep merchants and shoppers happy.

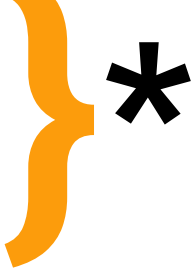
At the center of BR-DGE's platform, Couchbase captures and stores data for each merchant, their account configurations, and whichever payment providers they've enabled.

"Couchbase is the beating heart of our payment data and of all the functionality we provide to our customers," explained Stuart Brand, the platform engineering manager at BR-DGE. "The platform has been easy to deploy and manage from the very beginning."

BR-DGE uses a microservices architecture with multiple data centers running in multiple clouds. Customer payment details, including credit card CVV numbers, are stored in a specific bucket, and for security purposes, are held only for a specific time frame. This data retention policy delivers performance and cost-efficiencies because it limits the length of time data is stored. BR-DGE optimizes further by using SQL++ (SQL for JSON) to structure its documents.

Couchbase's cross data center replication allows organizations to replicate data across databases whether they're in the same location or in different clouds and different data centers. This protects against data center failure and provides high-performance data access for globally distributed mission-critical applications.





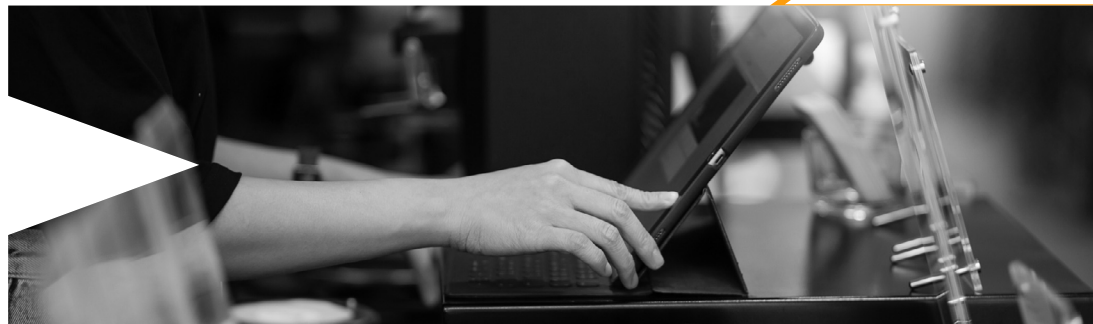
“XDCR is a key feature for us, keeping everything in sync,” said Brand. “If any problem occurs, we immediately switch over and the data is consistent in both places. Couchbase makes XDCR easy to implement and use, which makes the data easy to trust. All the performance tests we’ve done show that it’s been a tremendous solution.”



THE RESULT: High performance at a low price

BR-DGE provides its customers with a modular solution offering a wealth of connectivity in addition to tools such as smart routing for end-to-end payment journey optimization, insightful reporting across payment performance and network token encryption services. By integrating with over 100 payment providers like Worldpay, Adgen, and PayPal and with over 200 alternative payment methods (including Apple Pay, Google Pay, and open banking providers), BR-DGE enables merchants to integrate just once to access any of those services. By having so many options, the merchants gain leverage against providers who charge high fees, and consumers get a smoother checkout by being able to choose their preferred payment option. The end result is fewer abandoned carts and more revenue for BR-DGE customers, along with the following benefits:

- **6%+ of revenue** recaptured through failover transaction recovery
- **88% faster time to market** with new integrations
- **10-37% reduction** in acquiring fees
- **2-7% increase** in payment authorization rates



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 consume 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 Twitter.

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