



Navigating Data Sovereignty & Embracing an Operational Resilience Strategy in 2025

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Kaizen Gaming

An aerial, top-down view of a modern, circular building with a central courtyard. The building has a curved, glass facade with blue lighting. The central courtyard is paved and surrounded by greenery. People are seen walking on the paths and sitting on the grass. The overall atmosphere is bright and modern.

Kaizen Gaming is one of the biggest GameTech companies in the world, currently operating in **19 markets**.

With a focus on **Technology** and **People** we aim to continuously improve our products and services to provide the best and most trusted online gaming experience to our customers around the world.

Betano, our leading online sports betting and gaming brand, has an established presence across Europe, the Americas and Africa.

We employ more than **2,700 people** across four continents.

Our brand *Betano*

Operating in 15 regulated markets:

Europe: Portugal | Romania | Bulgaria | Czechia | Germany | UK | Denmark | Belgium

North America: Ontario, Canada

Africa: Nigeria

Latin America: Argentina | México | Perú | Colombia | Brasil

In 2 soon to be regulated markets:

Latin America: Chile | Ecuador



Our proprietary technology

Powering the Betano platform



Sportsbook



Rewards



Casino



Payments



Comms





Betano

OFFICIAL PARTNER

 [gambleaware.org](https://www.gambleaware.org) | Play responsibly





Betano

OFFICIAL SPONSOR



Sportsbook

44

different sports

5K+

tournaments & leagues

1M+

live events

400K+

events streamed live

370+

eSports types

+37%

active members in 2024
(vs 2023)

+46%

GGR 2024 (vs 2023)



Casino

86

providers

1.2k+

live tables

6.5K+

video slots

+47%

GGR 2024 (vs 2023)

27

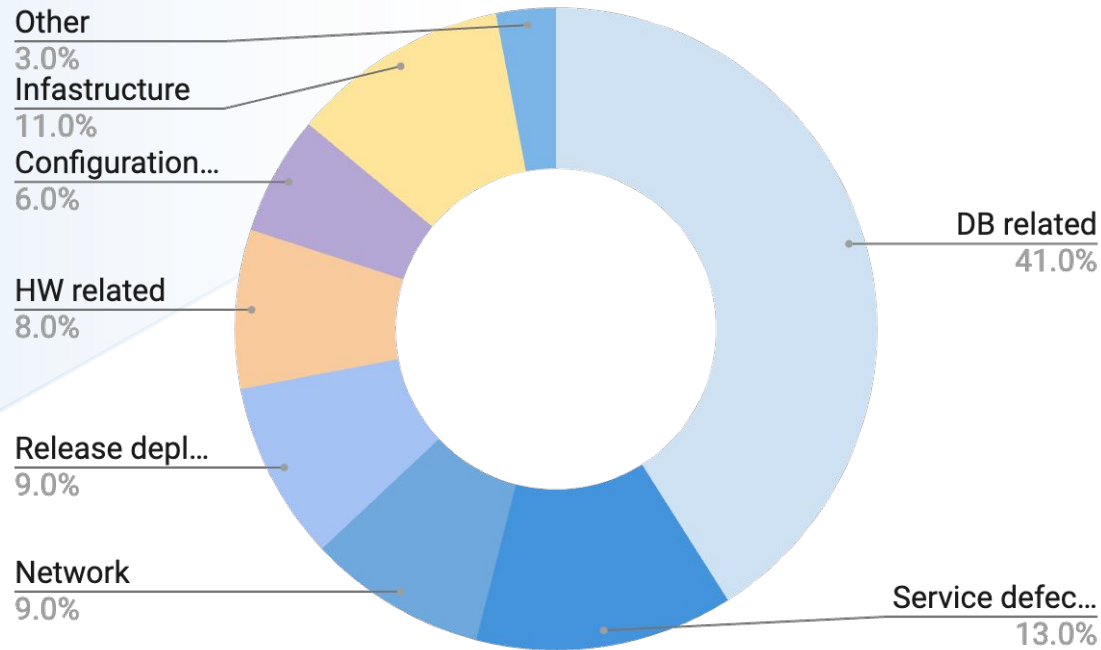
exclusive tables

+118%

Casino registrations in 2024 (vs 2023)



What keeps us awake



The data beast journey

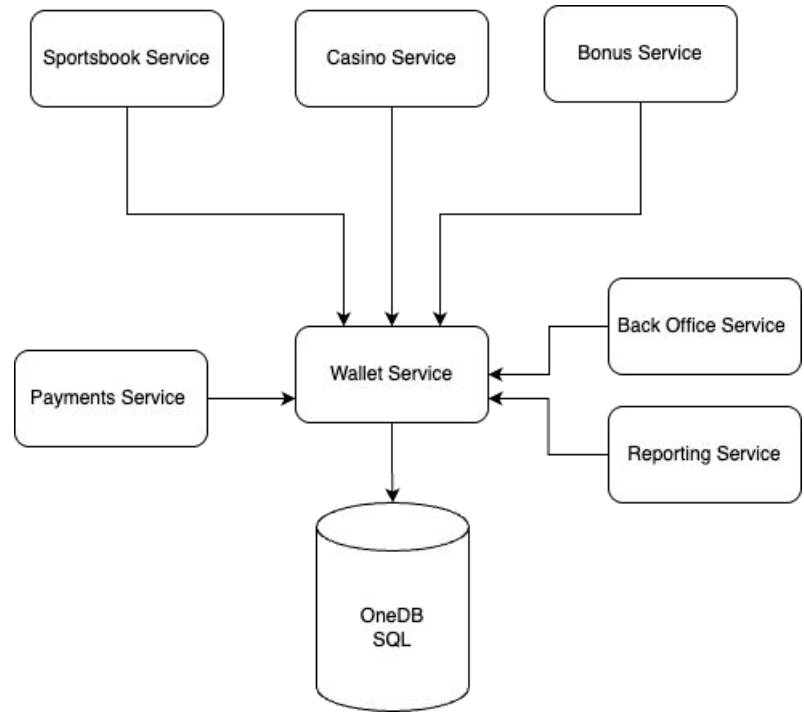


Our Monolithic Database Era

The good old days?

Challenges:

- ✗ Page latches
- ✗ Delays
- ✗ Thread issues
- ✗ Scalability

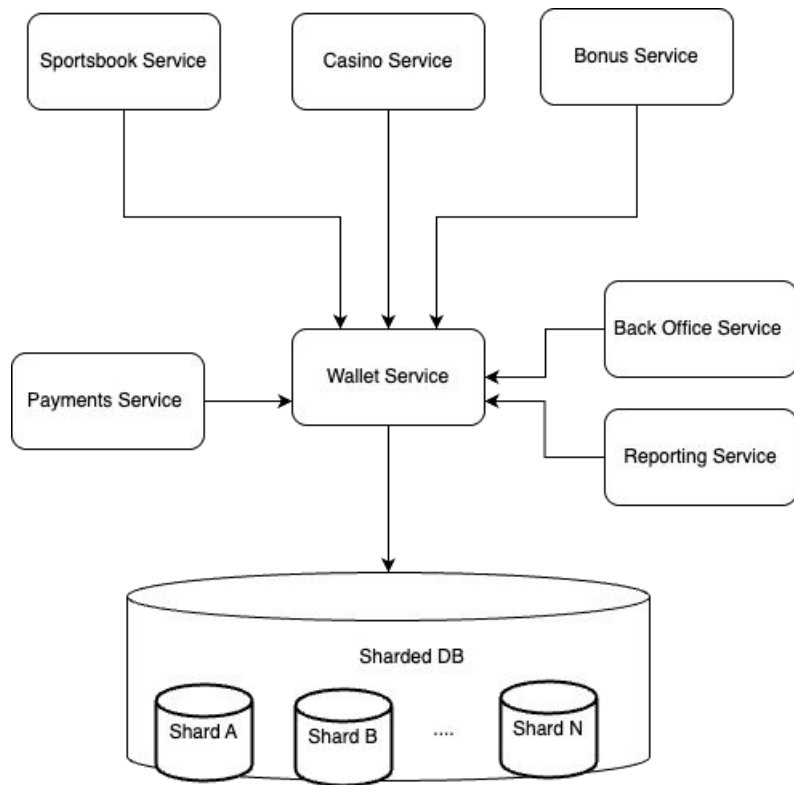


Going to Pieces

The Sharding Saga

Challenges:

- ✗ Hot “shards” scalability limits
- ✗ Resources Contention
- ✗ Operational complexity

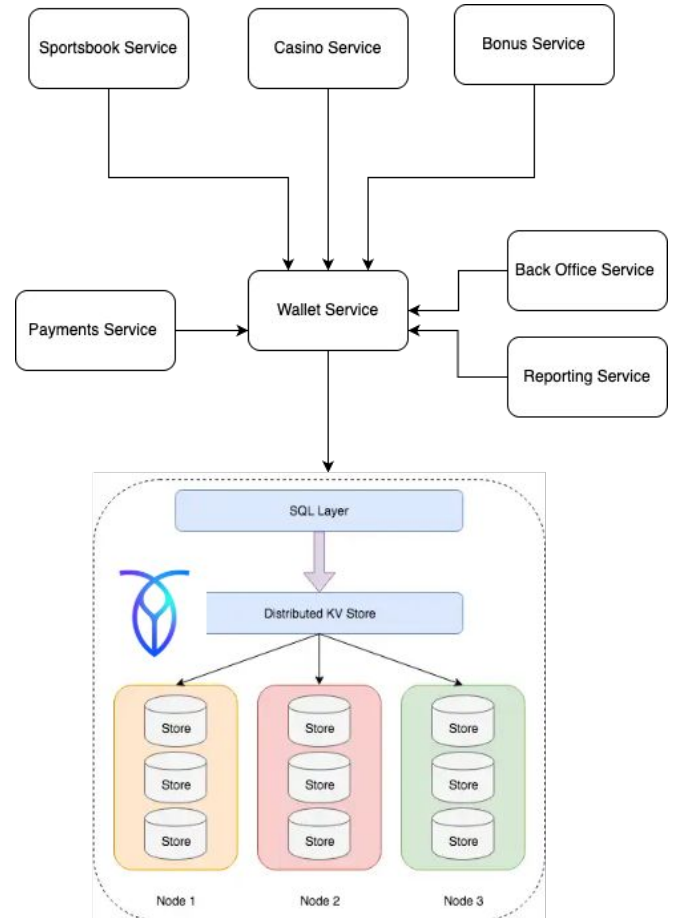


Cockroach era



Why CockroachDB:

- ✓ Strong consistency and ACID compliance
- ✓ Seamless horizontal scaling
- ✓ High availability
- ✓ Built-in Resilience
- ✓ Stability
- ✓ Simplified Operations: Add/remove nodes at ease
- ✓ Developer Experience: Forget about shard numbers



Is it a perfect world?

Performance Overhead

Individual inserts might be slightly slower due to the distributed nature.

Complex Transactions and Joins

May struggle for applications heavily reliant on extremely complex SQL JOIN statements.

Cold start latency

Increased latencies as DB warms up during initial requests.



The First Hurdle: Stress Tests Results



Failover/Restore

1-2mins of spike in delay but all requests processed successfully. No issues in restore.

Maintenance/Housekeeping operations

No significant overhead were introduced (eg. Version Upgrade).



Asked for a little, we got a LOT !

Scaling

Rebalancing occurs with no interruptions

Sharded Nodes	Inserts/Min	Avg CPU (App)	Avg Mem (App)	Avg response time	Avg SP insert time
5	240k-480k	30-34%	25-30%	9-11ms	0.8ms
19	240k-600k	20-38%	23-45%	10-15ms	1.2ms

Performance

Optimized application CPU utilization

Exceeded desired throughput

Cockroach DB Nodes*	Inserts /Min	Avg CPU (App)	Avg Mem (App)	Avg CPU (CR)	Avg response time	Avg SP insert time
6	120k	28%	25%	75%	29ms	1.4ms
12	240K	25%	28%	78%	34ms	1.7ms
24	480K	45%	23%	65%	28ms	1.3ms

*replication factor 5



Learn It, Love It , Live It (Better)!

CockroachDB Knowledge Gap

Limited expertise in CRDB architecture & operational practices - Enablement sessions expedited onboarding.

Data migration strategy

Critical to define from the beginning. Especially when the underlying tech stack is not 1-1.

Continuous performance testing to identify optimization opportunities

12 Feature Requests

3 delivered in the first 2 months.



Thank you!