Optimized in-memory IBOR architecture in a cloud environment

Using Apache Ignite

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One Size Doesn’t Fit All?

Monolithic → Purpose-built

Database Driven Design → Use Case Driven Design

Waterfall → DevOps
A one size fits all database doesn’t fit anyone.
Amazon CTO
Investment Book of Record (IBOR)

- Trading systems
- Accounting system
- Other back office
- Portfolio management
- Risk management
- Regulatory & Compliance
Optimized IBOR Architecture

Event Processor 1

Data Processor 1

IBOR Services 1

Event Processor 2

Data Processor 2

IBOR Services 2
Event Processor – Service Grid

- Trading
- Accounting
- Prices
- Other Analytics

Event Processor 1
(AWS AZ 1)

Event Processor 2
(AWS AZ 2)

Highly Available

Highly Scalable

Cluster & Node Singleton
IBOR Services – Compute Grid

Batch & non-tier 1 Clients

IBOR Services 1 (AWS AZ1)

Tier 1 Clients

IBOR Services 2 (AWS AZ2)

Co-location

Load Balancing

SQL Support
IBOR – DISASTER RECOVERY (DR)
CONCLUSION

Highly Available

Highly Scalable

Highly Recoverable

Optimized IBOR Architecture

Replicated Caches & Cluster Singleton

Node Singleton Services

Across Regions Recovery
We are hiring!