

XAP for eGaming



Online gaming infrastructure must handle continual, massive increases in traffic without slowing down. GigaSpaces XAP technology provides the infrastructure to enable the most massive multiplayer games for your online gaming site while offering high availability. It allows companies to dynamically create more game sessions and scale their system while meeting regulatory requirements for storing game history. XAP technology provides the infrastructure to enable the most massive multiplayer games on your online gaming site.



Dynamic provisioning
to meet fluctuating loads



High performance
for latency-sensitive environments



**Continuous uptime/
High availability**
through automatic failover and self-healing



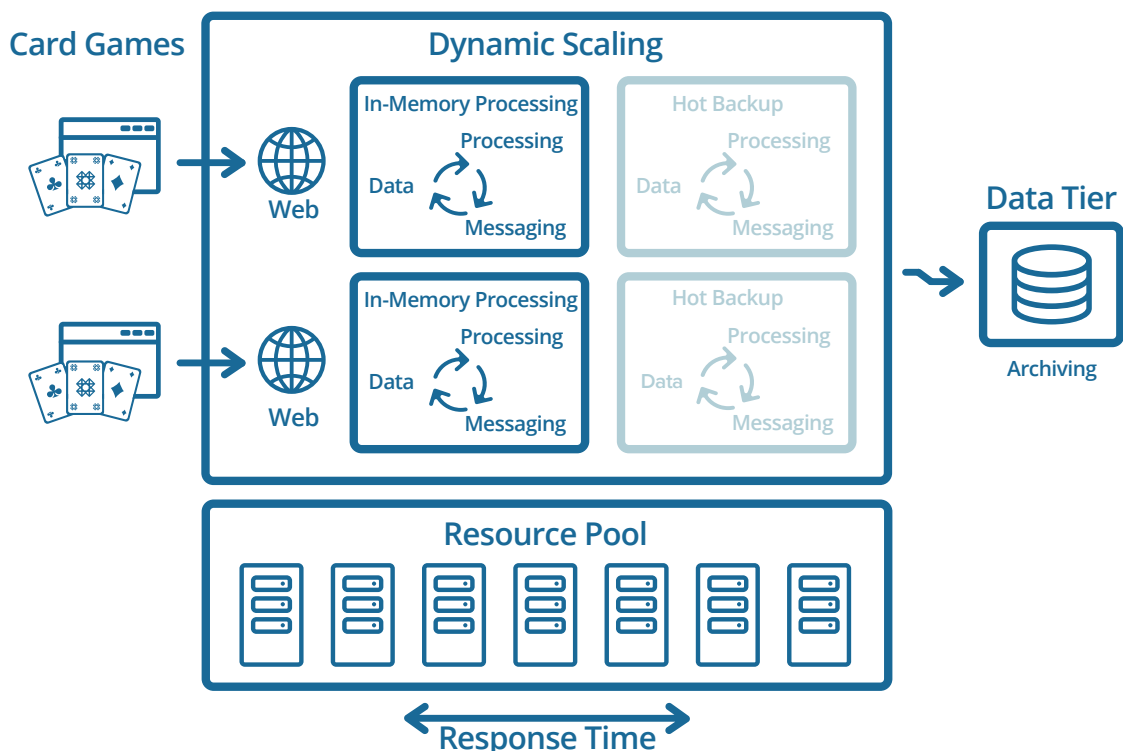
Cost reduction
through a combined rules engine for game events



Business logic
co-located with business data

How XAP Works

XAP enables your app to run entirely on a single platform with all the tiers collapsed into one container. The platform gives you fast data access by storing ALL your data in-memory, ensuring high availability and scaling your app automatically and on-demand. End-to-end elasticity enables all system components to scale as resource requirements increase.



Challenges

Accommodating high volumes of traffic and storing a high volume of game moves, providing real-time personalized incentives to increase conversion rates, monitoring users across games and avoiding server failure – sound like a challenge?

→ Accommodating High Volumes of Traffic

XAP ensures linear scalability:

- In-memory data partitioning enables unlimited load-balancing
- Elastic provisioning of resources lets you scale up/scale down as needed

→ Accommodating High Volume of Game Moves while Avoiding Server Failures

XAP can write hundreds of thousands of game moves per second using in-memory data partitioning:

- Hot backup is done in low latency and ensures high availability and reliability
- Self-healing mechanism automatically maintains your business continuity

→ Embedding Rules Engine for Game Events

XAP provides superior performance:

- Native integration with Drools rules engine to process thousands (or more) rules and provide real-time incentives
- Native integration with JMS for collocating business logic together with data

→ Providing Real-Time Personalized Incentives for higher conversions

XAP has built-in parallel processing, enabling real-time personalization on a large scale:

- Move your BI pattern recognition and reports to real time using XAP's in-memory data grid which means no physical database in runtime stack; no physical I/O, no tier hops
- Use parallel queries and processing to dynamically render content from queries in super-speed
- Data-aware routing & multi indexing – faster queries, reduced time to analytics
- Data can be stored asynchronously to SQL/NoSQL databases such as MongoDB, MySQL, Oracle, Cassandra, etc.

Use Cases



Improved Lobby Experience

- Use continuous queries to update lobby with each game move
- Co-locate data and business logic from engagement and social tool platforms



Social Lobby

- Use a scalable web layer to consume Facebook and other social media notifications
- Quick data access speed to update and read player social context
- Utilize parallel processing to enable your users to see which of their social media friends are currently playing



Superior Game Experience

- Store all player game sessions with all components in-memory
- Keep player credit record per game to prevent contention
- Use data aware tasks to efficiently operate game moves



Resilient Gaming (High Availability, move to hot backup PUI)

- Store game sessions and user accounts in-memory in partitions
- Add one or more backup partitions for each active partition
- Automatically deploy backups on different hosts and syncs with primary partitions
- Native SSD integration that allows for processing game events in-memory while storing the data on persistent storage

