

Build real-time interactive apps using Durable Objects

Maintain state and scale without infrastructure headaches

Build Stateful Serverless Applications That Work at Scale

From AI Agents to collaboration platforms:

Durable Objects combine compute with storage to solve serverless coordination challenges. Build applications that maintain state:

- Deploy AI agents with persistent memory and context across sessions
- Enable real-time collaboration with automatic state sync between clients
- Scale to millions without managing databases or infrastructure

Each Durable Object gets globally-unique naming and co-located storage for strong consistency without performance trade-offs. Build chat apps, collaborative tools, multiplayer games, and distributed systems.

Benefits



Built-in persistent state

Application state persists across restarts without separate storage systems.



Cost efficient performance

Scale from zero to millions of instances without upfront costs. Pay only for usage with hibernation eliminating idle charges.



Coordinate clients easily

Enable worldwide client coordination to the same instance without complex coordination.

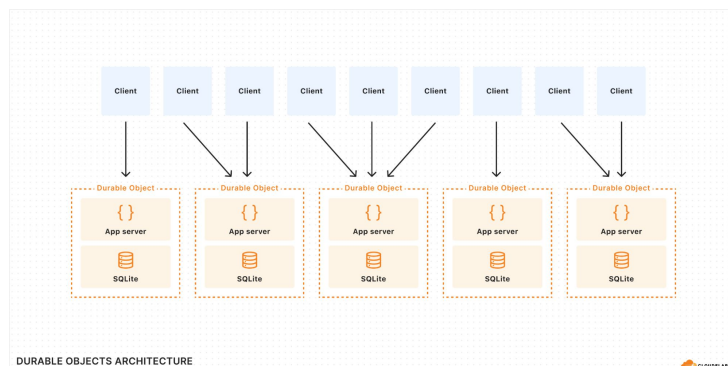
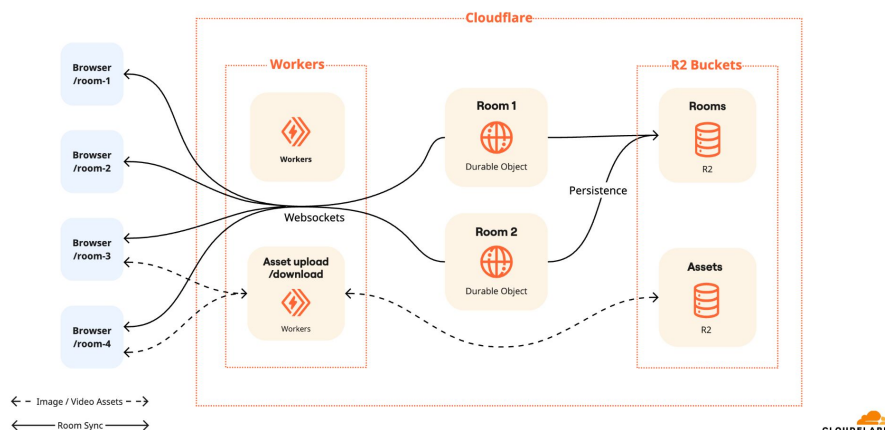


Figure 1: Durable Objects

WebSocket servers that hibernate and save on costs

Durable Objects serve as powerful WebSocket servers, supporting thousands of concurrent connections per instance. Your connections stay alive even when the object hibernates, avoiding duration charges during inactive periods while maintaining persistent connections.

Realtime Interactions with Durable Objects



Use Cases

**MLB delivers real-time scores 25% faster**

Using durable objects as WebSocket servers, the MLB app reduced of data fetches by 68% and p95 latency by 25%.

**Liveblocks avoided 40% increase in engineering spend**

Liveblocks struggled with scaling and slow performance their WebSocket server on AWS/MongoDB. They scaled to 500M messages/day & kept cost low with WebSocket hibernation.

**Kaizen Gaming supports 600K concurrent players**

Kaizen was over provisioned and self managing custom built infrastructure that didn't scale on Microsoft. With DO, they are able to support 600K players concurrently with autoscaling.

**tldraw whiteboard SDK built on DO**

Tldraw's whiteboard sdk is used daily for collaborative problem-solving and by companies such as ClickUp and Autodesk. With 40K+ Github stars, it's widely popular amongst developers.

"Without Cloudflare, hosting WebSocket servers might have required at least four additional people just for management. Using Durable Objects, we can provide serverless capabilities without a dedicated team for managing the environment."

Jonathan Rowny
Principal Software Engineer, Liveblocks

