

SOLUTION BRIEF

# Application Delivery

Accelerate Every Experience

## There Must Be a Better Way

Every enterprise today builds and maintains its own unique application delivery system. Each system combines various technologies, including databases, in-memory systems, application servers, and streaming services. As companies grow, designing and maintaining these systems for dependable, low-latency application delivery becomes increasingly demanding, pulling resources away from feature development.

HarperDB presents a refreshing approach to application delivery at scale. Instead of burdening developers with the orchestration and optimization of multiple technologies, HarperDB streamlines application delivery with a single, high-performance, container-friendly solution. This simplification not only eases the workload for developers but also significantly enhances system performance and user experience. For most, the latency improvements are game-changing. In one example, Edison Interactive, a digital out-of-home content provider, saw over a 99% reduction in latency for their mobile in-golf cart experience, with roundtrip response times shifting from a 5-second average to jaw-dropping 20 milliseconds while reducing overall infrastructure costs by 75%.

## Application Delivery Use Cases

Opportunities for streamlined application delivery are everywhere. A HarperDB implementation would likely benefit many of your current development priorities. Below are a few examples demonstrating how widely beneficial application delivery with HarperDB can be.

## Data Enrichment & Personalization

Whether it's enriching client requests with location information, demographic data, or real-time market trends, data enrichment can unlock personalized experiences. Enriching data with HarperDB allows seamless content delivery without additional origin requests. Further, combining distributed processing and data into one solution allows customer behaviors, preferences, and purchase histories to drive personalized promotions.

## GraphQL Caching

GraphQL has revolutionized API querying, offering flexibility and efficiency unmatched by RESTful endpoints. However, due to their dynamic nature, GraphQL requests are often uncacheable by today's CDNs. Conversely, HarperDB can easily cache GraphQL requests in a distributed and structured format, enabling near-instant response times for subsequent requests. With HarperDB, developers can deliver high-performance GraphQL APIs that scale horizontally without straining origin servers.

## Fraud Detection and Prevention

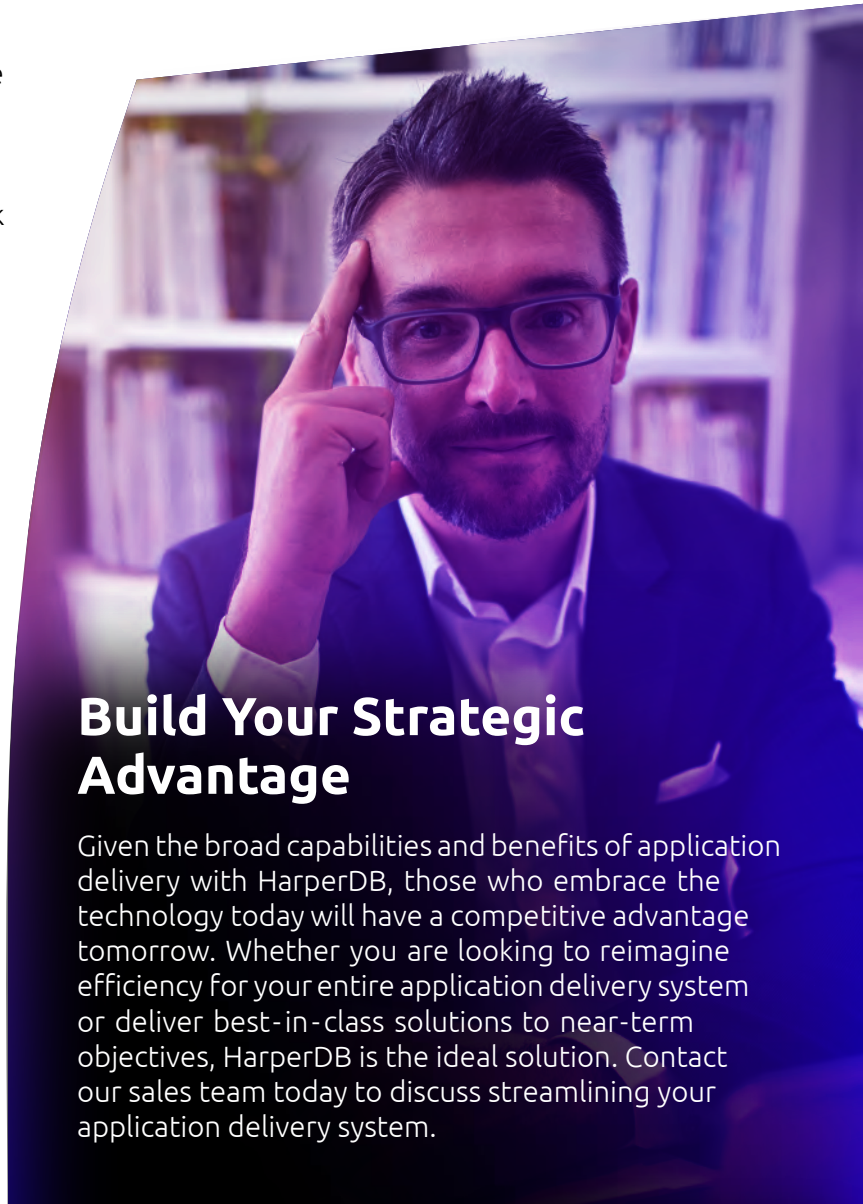
In today's digital landscape, the threat of fraud poses significant risks to businesses and consumers. Being both decentralized and synchronized, HarperDB is the ideal system for detecting fraud at a global scale without slowing down everyone's experience. By harnessing HarperDB's distributed low-latency data processing capabilities and built-in data storage, block lists can be globalized in as little as 100 milliseconds. Additionally, HarperDB's distributed state management can rapidly identify cross-region anomalies. As attackers become more sophisticated, having a globalized threat detection and prevention approach is critical.

## IoT Processing

Internet of Things (IoT) devices have proliferated over the last decade. Even though their capabilities have advanced, the operating systems supporting devices, edge networks, and cloud experiences remain noncontiguous – making them inefficient and difficult to scale. Alternatively, application delivery with HarperDB is contiguous, ensuring systems stay condensed, efficient, and performant. Transcending conventional boundaries, HarperDB redefines efficiency for IoT networks, allowing systems to run entirely offline while effortlessly synchronizing with central systems when bandwidth permits. With an infinitely flexible component architecture and native direct-to-device communication protocols, HarperDB is the ideal application delivery system for IoT devices.

## Inventory Management

Efficient inventory management minimizes costs and maximizes customer satisfaction. However, managing inventory data across locations, systems, and stakeholders can be daunting. HarperDB offers a comprehensive solution for unifying inventory management processes in a resilient and cost-efficient distributed system. With HarperDB, inventory data is synchronized in real-time across nodes, ensuring accurate visibility of stock levels, order statuses, and supply chain movements. Further, HarperDB provides a scalable and componentized architecture that lets you deliver value quickly without replacing existing systems.



## Build Your Strategic Advantage

Given the broad capabilities and benefits of application delivery with HarperDB, those who embrace the technology today will have a competitive advantage tomorrow. Whether you are looking to reimagine efficiency for your entire application delivery system or deliver best-in-class solutions to near-term objectives, HarperDB is the ideal solution. Contact our sales team today to discuss streamlining your application delivery system.