Digital Commerce Site Acceleration

Next-Level Performance, Simplified Systems

Breakthrough System Performance

In the world of digital commerce, the speed at which a web page loads can significantly impact revenue. Beyond search engine ranking, fast load times are a consumer expectation, with nearly 70% of consumers saying page speed affects their likeliness to buy. Conversely, the push for content optimization, such as automated A/B testing, dynamic pricing, and redirect management, makes fast load times all the more challenging to deliver.

To combat this growing challenge, HarperDB created a new type of backend system that combines data, application, streaming, and in-memory systems into one hyper-performant technology. Capable of responding directly to client requests without any additional network hops, HarperDB can respond in as little as 300 microseconds, giving you submillisecond performance. Further, HarperDB addresses network latency by natively distributing and synchronizing data across geographically distributed locations to deliver sub-50 millisecond (ms) roundtrip latency to end users globally.

Whether you are seeking to accelerate core capabilities or add functionality without a performance trade-off, HarperDB gives you immense power and flexibility.

> "This will drive over 100 million in revenue a year for us."
>
> - Fortune 100 Retailer

HarperDB

Transformational Acceleration

Low-Lift Webpage Acceleration

The simplest way to begin is by setting up HarperDB in front of your current infrastructure. This means directing incoming requests to a distributed system capable of round-trip latency below 50ms. Think of it like using a CDN but with added capabilities for handling complex queries and enriching your data. There are two deployment options: passive caching, which stores copies of data for a set period of time, and active caching, which keeps data synchronized at all times with your origin. With active caching, 100% of client requests are handled directly without returning to your origin servers. Because this solution requires minimal changes to existing systems, development can be finished in just a few weeks.

Improved Metasearch Experience

Utilizing third-party APIs and aggregating results can be a profitable business strategy. However, such systems are traditionally slow. HarperDB can improve user experiences in these scenarios by delivering initial results as soon as they are available and sending updates directly to the browser as additional results come in from third-party APIs. Further, HarperDB can cache and distribute any search results so that individuals performing similar searches around the same time, can get at least a few instant results as the system validates and expands results behind the scenes.

A/B Testing & Redirect Management

It's hard to predict what consumers will respond to. That's why some of the best strategies include product title and description A/B testing. However, at scale, the data tables managing redirects can be extensive and bogged down by requests, slowing down your site. With the lightning-fast performance of HarperDB, scaling content optimization strategies that require copious redirects is not an issue.

Dynamic Pricing

Competitor pricing, customer segmentation, supply, and demand can all be considerations when choosing the "right" price to display. Calculating such a price and ensuring consistency across user sessions can be challenging for many systems. HarperDB accelerates these processing-heavy tasks by completing them at the edge and only reaching out to additional systems if required.

Personalization

Recommending products based on customer profiles and buying history is an effective strategy for increasing sales. HarperDB allows you to capture key decision-making data points and process that data at the edge, getting results to customers sooner. Further, A.I. models delivered on HarperDB can be tuned to learn from regional preferences, providing recommendations that consider region-to-region differences without creating custom models.

Origin Replacement

With the popularity of omni-channel strategies and growing online businesses, backend systems are under more strain than ever. In many cases, companies forgo adding features because their current systems can't handle the strain. HarperDB is different, with a core data engine that operates an order of magnitude more efficiently than systems like MongoDB – HarperDB is ready to scale. Further, by including application, streaming, and in-memory capabilities, into HarperDB's core data system, companies can skip the cost of licencing and integrating additional technologies saving time and money when more complex features are desired.

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Performance and Agility Could Be Your Advantage

In the fiercely competitive world of digital commerce, HarperDB is a transformative solution. Its unparalleled, unified system architecture gives your business the competitive advantage of performance and agility. Today, HarperDB's breadth of capabilities can help you solve some of your most significant technical challenges while keeping you agile for the requirements of tomorrow. Schedule a meeting with our sales team to discuss your development priorities and how we can make your next move a resounding success.

**Contact Sales at
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