Kontera
CONTEXT. INTEREST. RESULTS.

Kontera Continues Best-in-Class Service with a SanDisk® Powered MongoDB Database

Leading technology and media company ensures positive user experience, fast analytics and high availability by adding SanDisk Fusion ioMemory™ ioDrive® cards to its MongoDB platform.

Solution Focus
- MongoDB
- Web analytics

Summary of Benefits
- Fast analysis to maximize related information and advertising opportunities for new pages
- Optimal user experience to maximize engagement
- Enterprise High Availability
- A simple, scalable, and cost-effective system

The Challenge

Kontera's real-time Synapse Platform analyzes more than 100 million page views each day on Kontera's premiere editorial and blog network of 15,000 sites, as well as 95 percent of the comScore top 1,000 sites. As these pages are served they are analyzed, and useful information and relevant ads are added in real time. The platform identifies semantic associations between phrases and related web content of any length, ascertains consumer trends, and automatically learns and classifies more than 1,000 new phrases that are introduced into the "global conversation" each day.

Greg Pendler, Kontera Production Operations Manager, told us, "We are all about understanding what users are doing online and providing them value via relevant information and ads. To do this, we depend on the speed and accuracy of our Synapse Engine. If it is slow, we suffer from poor user experience and missed business opportunities."

As the volume of the content Kontera analyzed grew, it realized it needed a system capable of:
- Maximizing opportunities for new content by accelerating analysis to match page content to ads and information
- Optimizing the end-user experience through faster page loads
- Ensuring High Availability with reliable technology
- Deploying scalable technology within budget

The Solution

Revving Up Real-Time Analysis

To rev up, Kontera turned to SanDisk. The Fusion ioMemory ioDrive cards delivered the performance they needed.

"Our page analysis process runs new page content through our semantic analysis engine to identify target content in our Mongo DB database, and then matches relevant advertising and information to the page content. This is a write-heavy process that must be done in real-time," Greg said. "We tried using a SAN storage target, but it would have taken 55 spindles to get us the performance we needed. We tried a local disk array, and that still wasn't fast enough. The ioDrive cards provide all the performance we need, and give us plenty of room to grow. Queries that used to take minutes now complete in seconds."

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Increasing User Retention and Engagement

Today's consumers are intolerant of delays online. Kontera had to avoid page load delays at all costs to ensure retention for its publisher network and relevant placement for advertisers. The ioDrive cards delivered on this promise as well.

"The best way to improve engagement is to ensure a seamless user experience," Greg said. "We have layered caching tiers that ensure most content is served with RAM performance, but new content is served from the MongoDB server, as is content that is not found in our two front-level caches. We looked to the ioDrive cards to ensure that, in these instances, we still offered near-RAM performance. In fact, we had a recent issue where we had to take a caching tier offline. The ioDrive cards provided enough performance that our system ran without any problems until the cache was up and running again."

Ensuring Enterprise Availability

The Internet never sleeps. Kontera is a global company and its 15k publishers are accessed by audiences around the world. Kontera had to implement a solution that ensured 5x9's High Availability.
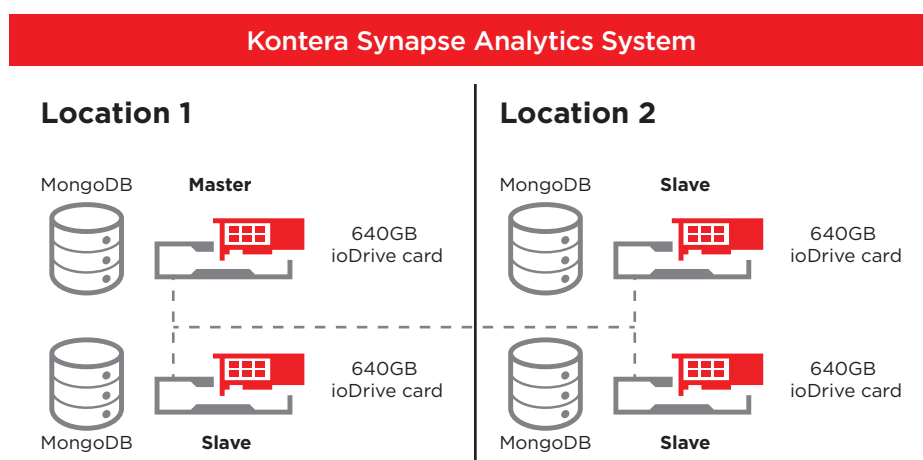
Greg told us, "We decided we needed SanDisk for mission-critical data. We've been running now for three to four months in a write-intensive environment without any problems."

Bolstering Business with a Simple, Scalable, Cost-effective System

Greg had to implement technology that could ensure high performance and scale to increasing data loads within Kontera's overall IT budget. Now, budgeting for the analysis system is a simple ioDrive card capacity decision instead of the complex calculations for a SAN or disk-based solution that includes supporting hardware, software, server footprint, energy, and maintenance costs.
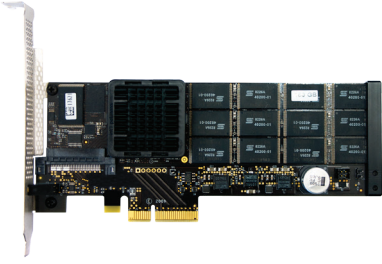
Greg added, "Our 360GB database easily fits onto the 640GB ioDrive card. When our data needs grow beyond the ioDrive card's capacity, we can just add another ioDrive card to the servers and continue operating as usual."

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>
> **Greg Pendler,**
> **Production Operations Manager**
> **Kontera**

Typical Synapse Node

Kontera Synapse Analytics System

Location 1

MongoDB — **Master** — 640GB ioDrive card

640GB ioDrive card

MongoDB — **Slave**

Location 2

MongoDB — **Slave** — 640GB ioDrive card

640GB ioDrive card

MongoDB — **Slave**

Four 2U Dell R710 servers, each with
- Dual-socket quad-core processors, 2.2 GhZ
- 72GB RAM
- One 640GB ioDrive card
- OS: CentOS
- Applications: MongoDB

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Fusion ioMemory™ - ioDrive®

Summary

Implementing the Fusion ioMemory solution gave Kontera the following benefits:

- Fast analysis to maximize related information and advertising opportunities for new pages
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- Enterprise High Availability
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Greg is thrilled with the SanDisk-powered system and told us, "We are currently evaluating what other systems might benefit from the Fusion ioMemory solution. We know that should we run into I/O bottlenecks in the future, SanDisk is a good partner to have on our team."

About Kontera

Kontera's real-time Synapse Platform uses sophisticated semantic and web trend analysis to understand and instantly react to user's intent with relevant information and ads. With Kontera users find information that is relevant to their interests, publishers increase interaction with their content, and advertisers gain greater targeting precision and brand engagement.

Kontera delivers its capabilities to the market through multiple partners. It is the exclusive in-content analysis and engagement platform for more than 15,000 web publishers, for whom it analyzes more than 3 billion monthly page-views in real time. The company delivers relevant content and display, in-text, social and mobile ads to more than 140 million unique users each month.

Kontera's advertiser solutions provide premier editorial placement within consumers' topics of interest, delivering unique audience reach opportunities. Brand advertisers see engagement rates topping 30%, and independent comScore studies show that Kontera's targeted display ads deliver 5 times the brand lift of traditional banners.

Kontera's delivery platforms encompass PCs and mobile devices, including iPhones, iPads, and Android phones. The company works with top brand advertisers such as Toyota, Microsoft, AT&T, Samsung and L'Oreal. Kontera's Operations, R&D and growth has been recognized by Deloitte Fast 50, Israel.

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For more information, please visit:
www.sandisk.com/fusion

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At SanDisk, we're expanding the possibilities of data storage. For more than 25 years, SanDisk's ideas have helped transform the industry, delivering next generation storage solutions for consumers and businesses around the globe.