



# Baidu Feed Stream Restructures In-Memory Database with Intel® Optane™ Technology

Baidu specializes in Internet-related services and AI products. It is one of the largest AI and internet companies in the world. As Baidu’s businesses expand further, Feed-Cube\*—the company’s highly efficient in-memory database—needs to deploy larger memory to support the explosive growth of data. However, the prohibitive cost of DRAM brings increasing pressure on the total cost of ownership (TCO) for memory scaling. To lower the TCO while ensuring outstanding performance, Baidu built a new memory platform using Intel® Optane™ persistent memory. Baidu’s internal tests show that the Feed-Cube\* based on Intel Optane persistent memory can maintain its performance advantage in a highly concurrent Feed Stream business scenario and significantly reduce costs.<sup>1</sup>

“The Feed Stream services create user profiles and provide personalized content for users as per their preferences. It requires high-performance online storage support. Intel® Optane™ persistent memory helps Feed-Cube, the core module of the Feed Stream services, to greatly reduce TCO while ensuring high concurrency, large capacity and high performance.”

**Tao Wang Chief Architect, Recommendation Technology Architecture, Baidu**

## Products and Solutions

[2nd Gen Intel® Xeon® Scalable Processors](#)  
[Intel® Optane™ Persistent Memory](#)

## Industry

Internet Software,  
IT Services

## Organization Size

10,001+

## Country

China

## Learn more

[Case Study](#)

<sup>1</sup> For more complete information about performance and benchmark results, visit <https://www.intel.com/content/www/us/en/customer-spotlight/stories/baidu-optane-spdk-customer-story.html>