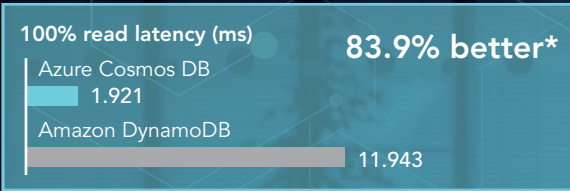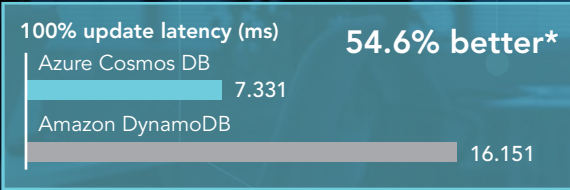# Get lower latency for NoSQL workloads in the cloud with Azure Cosmos DB for NoSQL

Azure Cosmos DB delivered lower latency at a lower solution cost in most cases than Amazon DynamoDB
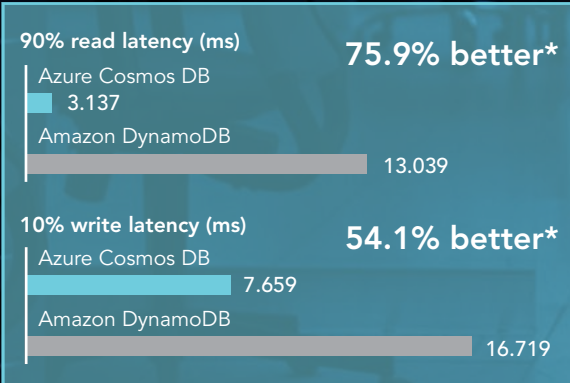
Target OPS 10K

100% read latency (ms)   **83.9% better***

Azure Cosmos DB
1.921

Amazon DynamoDB
11.943

Target OPS 30K

100% update latency (ms)   **54.6% better***

Azure Cosmos DB
7.331

Amazon DynamoDB
16.151

Target OPS 50K

90% read latency (ms)   **75.9% better***

Azure Cosmos DB
3.137

Amazon DynamoDB
13.039

10% write latency (ms)   **54.1% better***

Azure Cosmos DB
7.659

Amazon DynamoDB
16.719

*at the 99th percentile.

Organizations that rely on NoSQL databases can offer users a better experience by choosing a cloud solution that responds more quickly to requests.

In our Yahoo! Cloud Serving Benchmark (YCSB) tests, the Azure Cosmos DB solution delivered lower latencies than Amazon DynamoDB.

We also found that the Azure Cosmos DB solution cost less per hour in most instances and was up to 29% more affordable than the Amazon DynamoDB solution.

Azure Cosmos DB performance at 1 million OPS

To get a better understanding of the latency of Azure Cosmos DB at a large scale, we measured the latency of the solution for 100% read and 100% write operations at a target rate of 1 million OPS.

The Azure Cosmos DB solution achieved a 99th percentile latency of 3.15ms for the 100% read workload and 12.8ms for the 100% write workload. Comparing these response times to those in the 50,000 OPS test, we see a similar read latency and only a 2.3ms increase in the write latency.

These results suggest that Azure Cosmos DB for NoSQL can scale to handle unusually large workload needs.

Table 1: Yahoo! Cloud Serving Benchmark transaction latency results (ms). Lower is better. Source: Principled Technologies.

Azure Cosmos DB 1 million OPS		
Workload	100% reads	100% writes
95th percentile	2.134	9.097
99th percentile	3.152	12.877

Learn more at https://facts.pt/48qgf0S

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