
WASABI PERFORMANCE BENCHMARK REPORT

Comparing Performance
Between Wasabi & AWS S3



Executive Summary & Key Findings

Wasabi is transforming the cloud storage industry by offering a service that is less expensive and more performant than alternatives from its competitors

Performance is a key tenet of Wasabi's engineering strategy and long-term roadmap. Market trends indicate that cloud object storage use cases continue to proliferate, addressing a range of high-performance workloads traditionally reserved for block or file storage. These "fast-object" use cases are redefining the way buyers think about their distributed storage solutions and services, and their applicability in the cloud. This means any modern, digital enterprise requires millisecond access to their stored data, regardless of the environment it is placed in (cloud, on premises, etc.).

Wasabi's storage performance advantages are derived from its innovative architectural design attributes. To prove the performance advantages of Wasabi compared to AWS, Wasabi conducted a series of performance benchmark tests with both Wasabi Hot Cloud Storage and AWS S3 Standard services. The tests were based on industry-standard methodologies for evaluating cloud storage performance (see testing methodology for details).



KEY FINDINGS

Our testing showed that Wasabi displayed a considerable performance advantage, outperforming AWS in 37 of the 40 combinations measured.

Aggregating the average performance results across a range of object sizes and thread counts, Wasabi Hot Cloud Storage read/write performance was **over 2x faster than AWS Standard**. At the top end of the range, Wasabi delivered a **+234% performance improvement in average read/write performance for 100KB object sizes**.



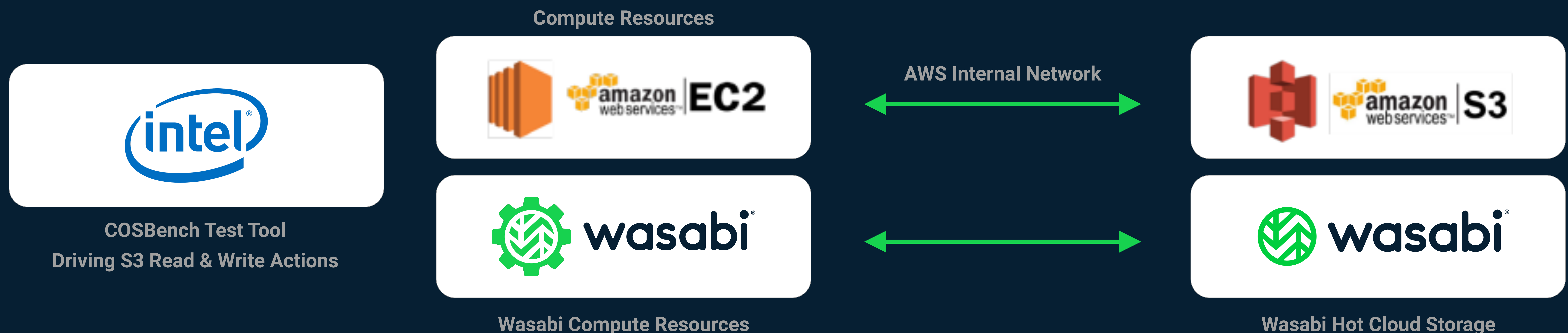
Testing Methodology

Wasabi's performance testing is based on results from the Intel COSBench (Cloud Object Storage Benchmark), testing tool. This tool was used to run a series of tests against both AWS S3 Standard and Wasabi Hot Cloud Storage to compare the write and read performance of the two storage services in various configurations. As part of the test cycles, we benchmarked object sizes ranging from 10 KB to 10 MB and compute thread counts from 1 to 30. Figure 1 further illustrates the benchmark environment:

The AWS EC2 compute + AWS S3 storage configuration shown at the top of Figure 1 serves as the baseline for comparison testing. In this configuration, AWS EC2 was connected to AWS S3 Standard directly over the AWS US-East internal data center network. The EC2 instance configuration was m2.xlarge with 10 Gb/s interfaces and the AWS S3 config was S3 Standard.

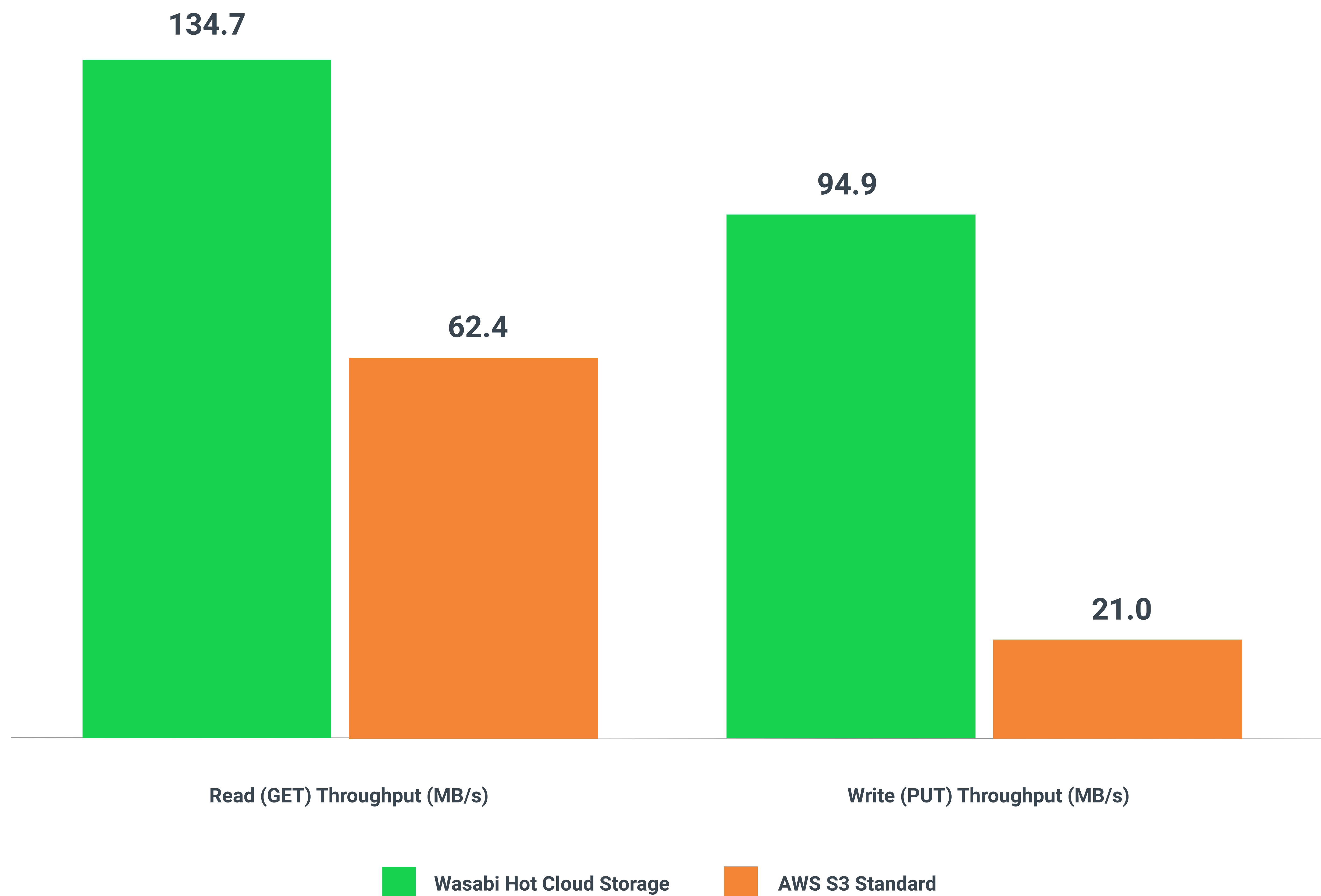
The Wasabi compute + Wasabi storage test configuration shown in Figure 1 involves the use of Wasabi compute resources collocated in the same US-East data center as Wasabi Hot Cloud Storage. For this configuration, the Wasabi compute instance was comparable in size to the AWS EC2 instance and was connected via Wasabi's internal data center network using 10 Gb/s interfaces.

Figure 1: Performance Testing Configuration



Performance analysis for small objects (100KB):

100KB Object Size Performance (MB/s)



Note: performance averaged across a range of thread counts (from 1 thread to 30 threads)

KEY FINDINGS

Wasabi delivered **2x performance on Reads** and **over 4x performance on Writes** compared to AWS S3 Standard when testing 100KB object sizes.

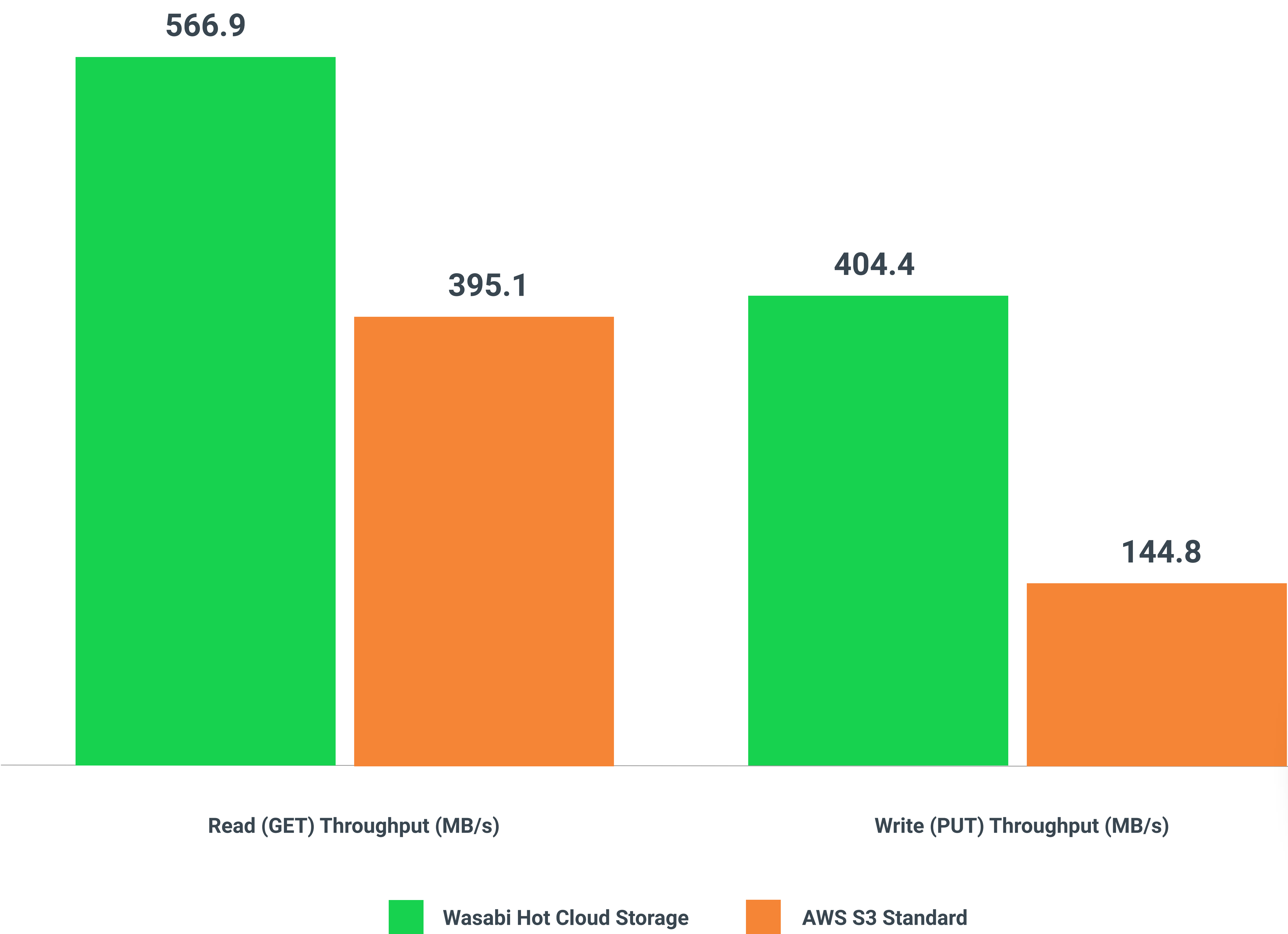
2X Performance on Reads

4X Performance on Writes



Performance analysis for medium-size objects (1MB):

1MB Object Size Performance (MB/s)



Note: performance averaged across a range of thread counts (from 1 thread to 30 threads)

KEY FINDINGS

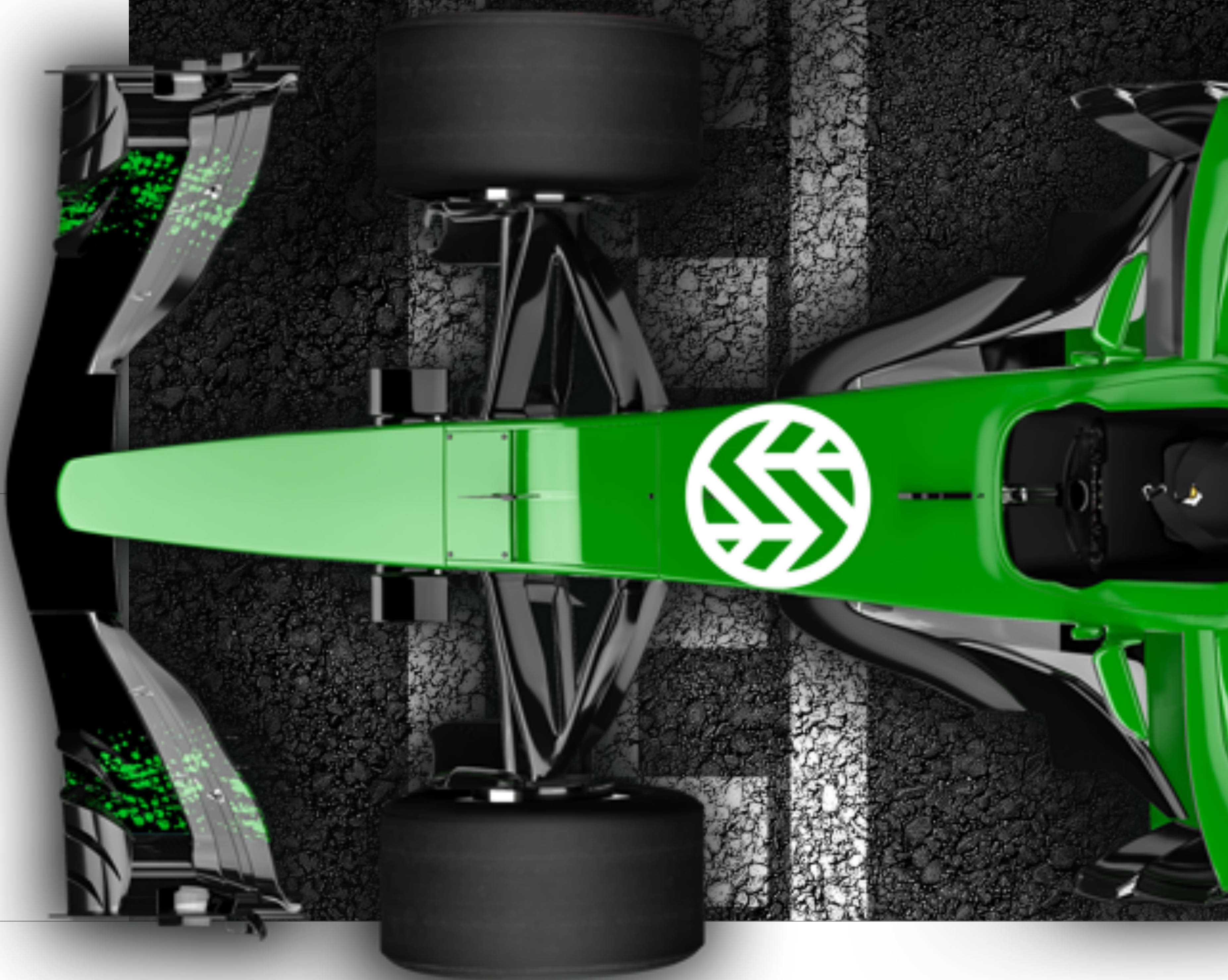
Wasabi delivered a **+43% performance uplift on Reads** and **over 2x performance on Writes** compared to AWS S3 Standard when testing 1MB object sizes.

43%

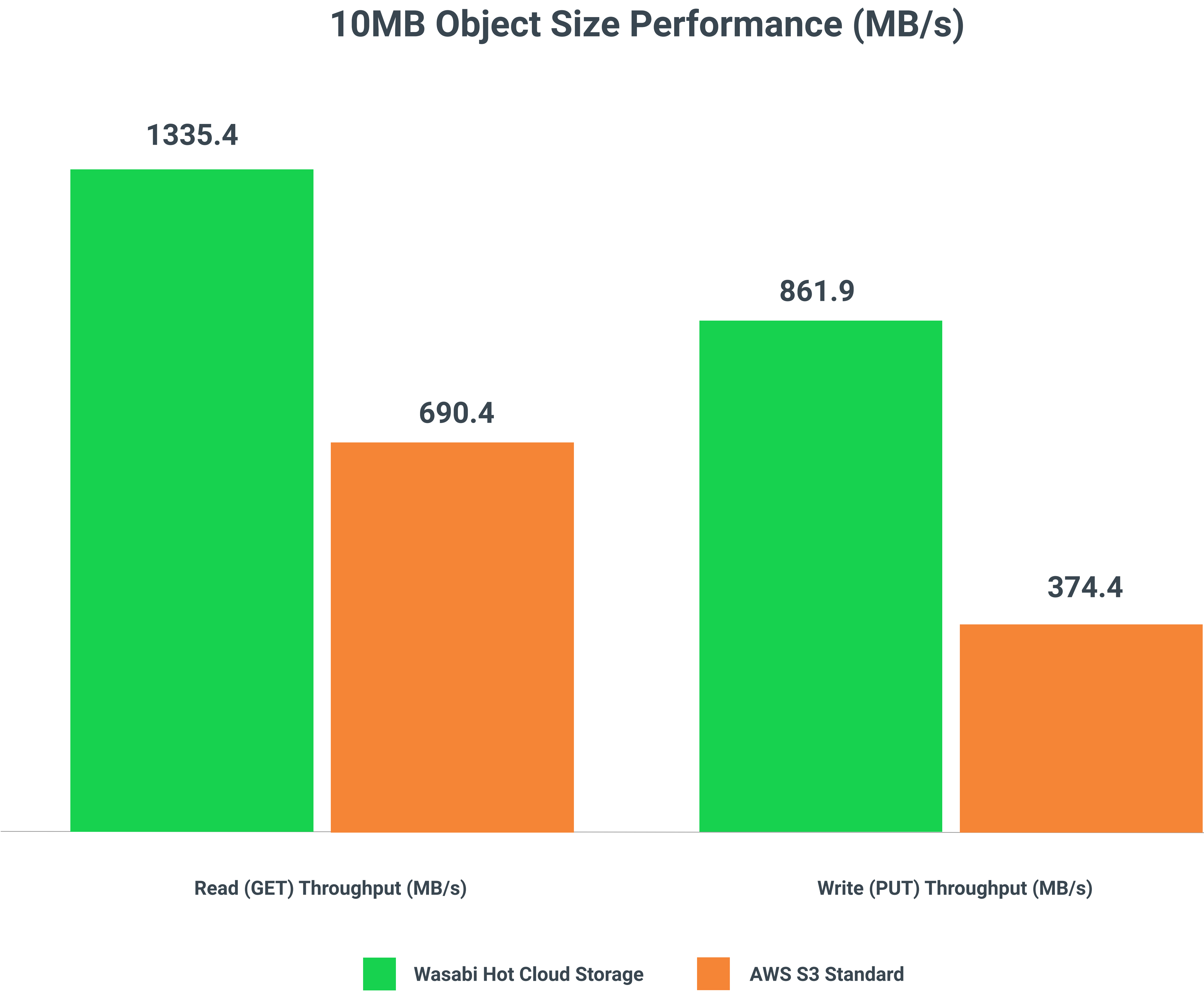
Performance Uplift on Reads

2X

Performance on Writes



Performance analysis for large objects (10MB):



Note: performance averaged across a range of thread counts (from 1 thread to 30 threads)

KEY FINDINGS

Wasabi delivered **+93% performance uplift on Reads** and **over 2x performance on Writes** compared to AWS S3 Standard when testing 10MB object sizes.

93% Performance Uplift on Reads

2X Performance on Writes



About Wasabi

Wasabi provides simple and affordable hot cloud storage for businesses all over the world. It enables organizations to store and instantly access an unlimited amount of data with no complex tiers or egress or API fees, delivering predictable costs that save money and industry leading security and performance businesses can count on. Trusted by thousands of customers worldwide, Wasabi has been recognized as one of technology's fastest-growing and most visionary companies. Created by Carbonite co-founders and cloud storage pioneers David Friend and Jeff Flowers, Wasabi is a privately held company based in Boston. Wasabi is a Proud Partner of the Boston Red Sox, and the Official Cloud Storage Partner of Liverpool Football Club and the Boston Bruins.

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