

WHICH STORAGE DEVICE WOULD YOU GO TO BATTLE WITH?

SOLID STATE VS. HARD DISK



20X SSD outperforms HDD by 20X¹

5X SSD is 5X more reliable than HDD²

1/20th SSD uses 1/20th the power of HDD³

	SSD	HDD	Notes
PERFORMANCE			
App Load/Response Time			SSD is 20x faster than HDD
Random Data Rate (IOPS)	READ RATE 	READ RATE 	SSD = Up to 33k IOPS HDD = 169 IOPS
	WRITE RATE 	WRITE RATE 	SSD = Up to 62k IOPS HDD = 169 IOPS
Sequential Data Rate (MB/S)	READ RATE 	READ RATE 	SSD = Up to 546 MB/second HDD = 156 MB/second
	WRITE RATE 	WRITE RATE 	SSD = Up to 342 MB/second HDD = 156 MB/second
RESISTANCE			
Shock			SSD = 1,500G @ 0.5ms HDD = 350G @ 0.5ms
Vibration			SSD = 5gRMS, 10-2,000Hz HDD = 0.5gRMS, 23 - 350Hz
Power Usage			SSD = 30mW HDD = 817mW
Meantime Between Failure			SSD = 1,750,000 Hours HDD = 750,000 Hours
Moving Parts			SSD = No moving parts HDD = 2 or more moving parts spinning



1 Based on PCMark Vantage Secondary scores, Z400s vs. 5400 HDD.

2 <http://arstechnica.com/information-technology/2014/01/putting-hard-drive-reliability-to-the-test-shows-not-all-disks-are-equal/>

3 Based on average power consumption testing using MobileMark 2012 testing of Z400s vs. 5400RPM HDD.

4 Source: (IHS Research, "Global Digital Signage Market Nears \$14 Billion, Spurred by Real-Time Analytics in Retail", 10/29/ 2013

5 Source: AOPEN America