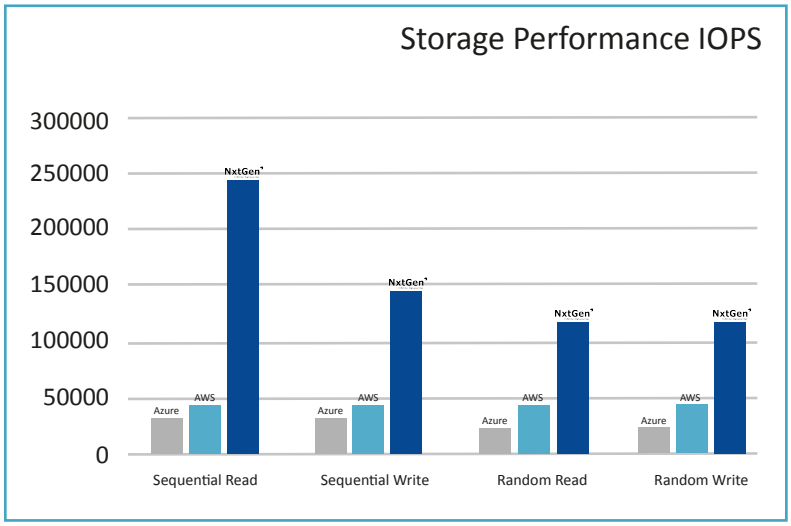
NxtGen
Infinite Datacenter

PRICE - PERFORMANCE

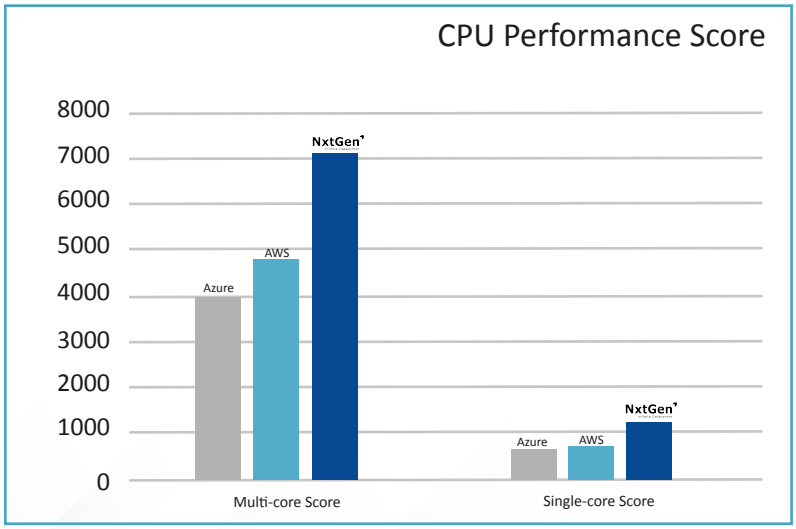
FACT SHEET

NxtGen leads the price - performance in 2023 and has done the same since 2016! Consistently delivered higher performance at a lower price to over 2,000+ customers. The benchmarks are open source based, repeatable and is the committed value proposition from NxtGen.



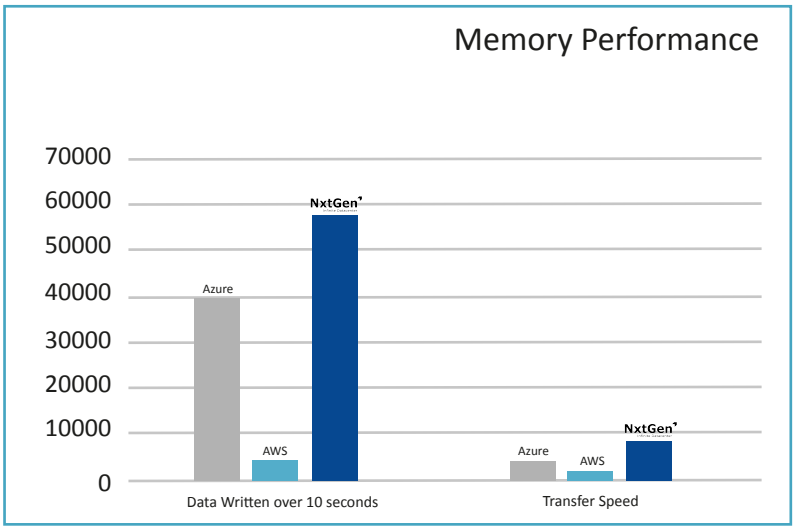
VMware vSAN Express on all NVMe Drives delivers multi-fold performance, significantly high uptime, and a lower price. New vSAN express allows for all disks to participate in write operations, eliminating the need for caching. Storage is encrypted and does not impact comparative performance.

The performance was tested using opensource performance testing tool - FIO.



NxtGen ensures CPU resources are not shared and further reduces the load by using technologies such as Remote Direct Memory Access and Encryption is off- loaded to built-in CPU functions.
NxtGen is using AMD EYPC previous generation processors, increased performance can be expected from the current generation.

The benchmark was done with Geekbench!



Superior memory performance results in more data being pumped to the CPU and reduce the number of CPU wait-states and increase the CPU utilization, thereby impacting overall application or database performance.

The virtual machines are encrypted in memory when processing data, denying hackers with access to data in memory.

Sysbench was used to test DDR-4 memory performance.

Very low latency and high-bandwidth network, 200Gbps per host ensures the tenant traffic is not choked and impact of a noisy neighbor is negated. Further, NxtGen runs NSX-T with distributed Firewall functions including IPS/IDS embedded at the Hypervisor on each host. Layer-7 Application Firewall functions are available as part of NXT-T implementation.

Not just performance, expect a very secure cloud infrastructure.

In most clouds, performance is impacted when multiple virtual machines demand the same resources. At NxtGen, we do not share CPU cores & memory between virtual machines and hence no contention while processing multiple virtual machines in a host.

Considering a customer with multiple VMs, we performed benchmark on the storage. The result was an impressive 1.6 million IOPS! The performance scales more with more load. This is made possible by NVMe drives, with each capable of delivering 1,000,000 IOPs at a MTBF of 2,000,000 hours!

Multi-VM Benchmark	20 VMs	40 VMs
IO per second	9,45,429	16,35,091
Throughput MB/s	3,693	6,387
Read Latency (ms)	0.19	0.21
Write Latency (ms)	0.69	0.82

ABOUT BENCHMARK TOOLS USED

The intent of using opensource benchmark tools is to ensure repeatability of the tests, specific to customer requirements. The value proposition remains committed to delivering **superior performance at a lower price.**

FIO tests the storage performance, can be used to test any type of storage. It spawns several threads or processes doing a particular type of I/O action as specified by the us and loads the storage system, while measuring multiple parameters including read/write latency and number of IO functions executed.

Geekbench 6 measures processor's single-core and multi-core power, for everything from checking your email to taking a picture to playing music, or all of it at once. Geekbench 6's CPU benchmark measures performance in new application areas including Augmented Reality and Machine Learning.

We used **Sysbench** to test the memory performance, typically a system is used to stimulate database loads. It runs multiple threads at the same time to create load to stress the system memory.

NxtGen recommends its customers to not compare just the configuration of the virtual machines but compare it with performance. Consistent higher performance allows our customer to reduce the configurations required to run applications and save costs.

VMware provides significant observability to the infrastructure and services running. NxtGen's cloud delivered 100% uptime to multiple customers over the lifespan of the hardware.

For more information, reach out to **contact@nxtgen.com**