

HCIBench Report

Test Case Name: fio-8vmdk-100ws-256k-0rdpct-0randompct-1threads-1675281238

Report Date: 2023-02-01 21:27:38 +0000

Generated by: [HCIBench 2.8.0](#)

Performance Results

Datstore: vsanDatastore

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JOB_NAME: job0

Number of VMs: 12

I/O per Second: 789.47 IO/S

Throughput: 197.00 MB/s

Read Latency: 0.00 ms

Write Latency: 123.32 ms

95th Percentile Read Latency: 0.00 ms

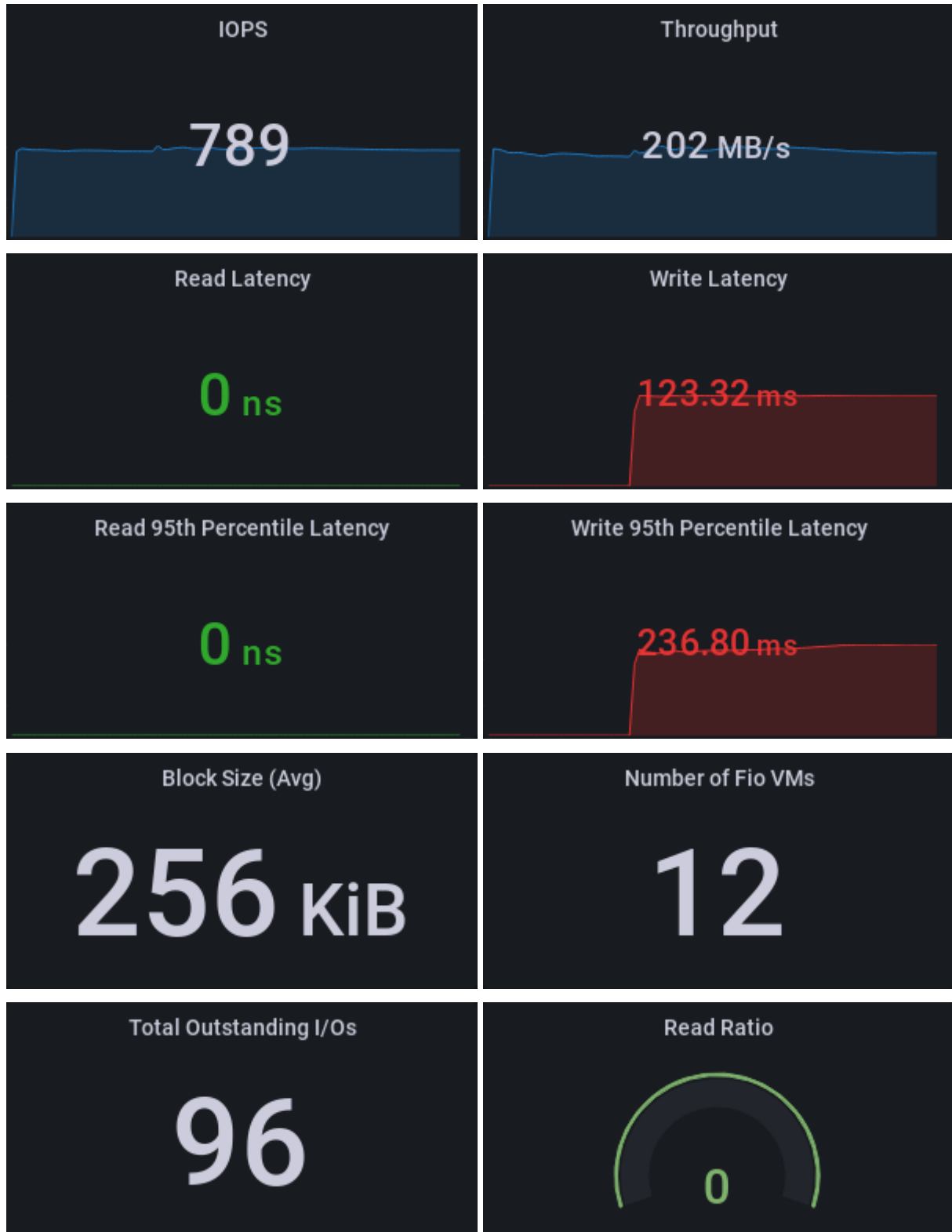
95th Percentile Write Latency: 236.00 ms

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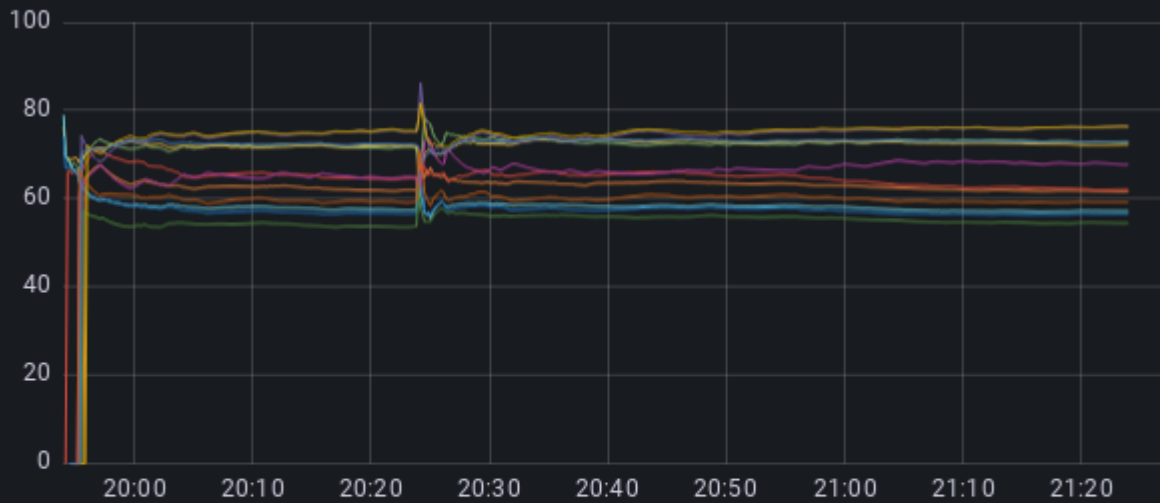
Resource Usage

| Cluster | cpu.usage | cpu.utilization | mem.usage |
|---------------|-----------|-----------------|-----------|
| VSAN8-Cluster | 40.41% | 41.8% | 88.37% |

Performance Charts



Fio IOPS



| | min | max | avg | current |
|----------------------------|-------|-------|-------|---------|
| hci-fio-datastore-1024-0-1 | 65.87 | 78.61 | 72.51 | |
| hci-fio-datastore-1024-0-2 | 66.94 | 76.38 | 72.37 | |
| hci-fio-datastore-1024-0-3 | 55.60 | 78.95 | 58.27 | |
| hci-fio-datastore-1024-0-4 | 0 | 67.50 | 62.89 | |

Fio Throughput



| | min | max | avg | current |
|----------------------------|-----------|-----------|-----------|---------|
| hci-fio-datastore-1024-0-1 | 16.0 MB/s | 20.0 MB/s | 18.5 MB/s | |
| hci-fio-datastore-1024-0-2 | 16.8 MB/s | 18.8 MB/s | 18.5 MB/s | |
| hci-fio-datastore-1024-0-3 | 14.2 MB/s | 19.2 MB/s | 14.9 MB/s | |
| hci-fio-datastore-1024-0-4 | 15.0 MB/s | 17.3 MB/s | 16.1 MB/s | |

Fio Read Latency



| | min | max | avg | current |
|----------------------------|------|------|------|---------|
| hci-fio-datastore-1024-0-1 | 0 ns | 0 ns | 0 ns | |
| hci-fio-datastore-1024-0-2 | 0 ns | 0 ns | 0 ns | |
| hci-fio-datastore-1024-0-3 | 0 ns | 0 ns | 0 ns | |
| hci-fio-datastore-1024-0-4 | 0 ns | 0 ns | 0 ns | |

Fio Write Latency



| | min | max | avg | current |
|----------------------------|------|--------|-------|---------|
| hci-fio-datastore-1024-0-1 | 0 ns | 124 ms | 73 ms | |
| hci-fio-datastore-1024-0-2 | 0 ns | 120 ms | 74 ms | |
| hci-fio-datastore-1024-0-3 | 0 ns | 144 ms | 92 ms | |
| hci-fio-datastore-1024-0-4 | 0 ns | 133 ms | 87 ms | |

Read 95th Percentile Latency

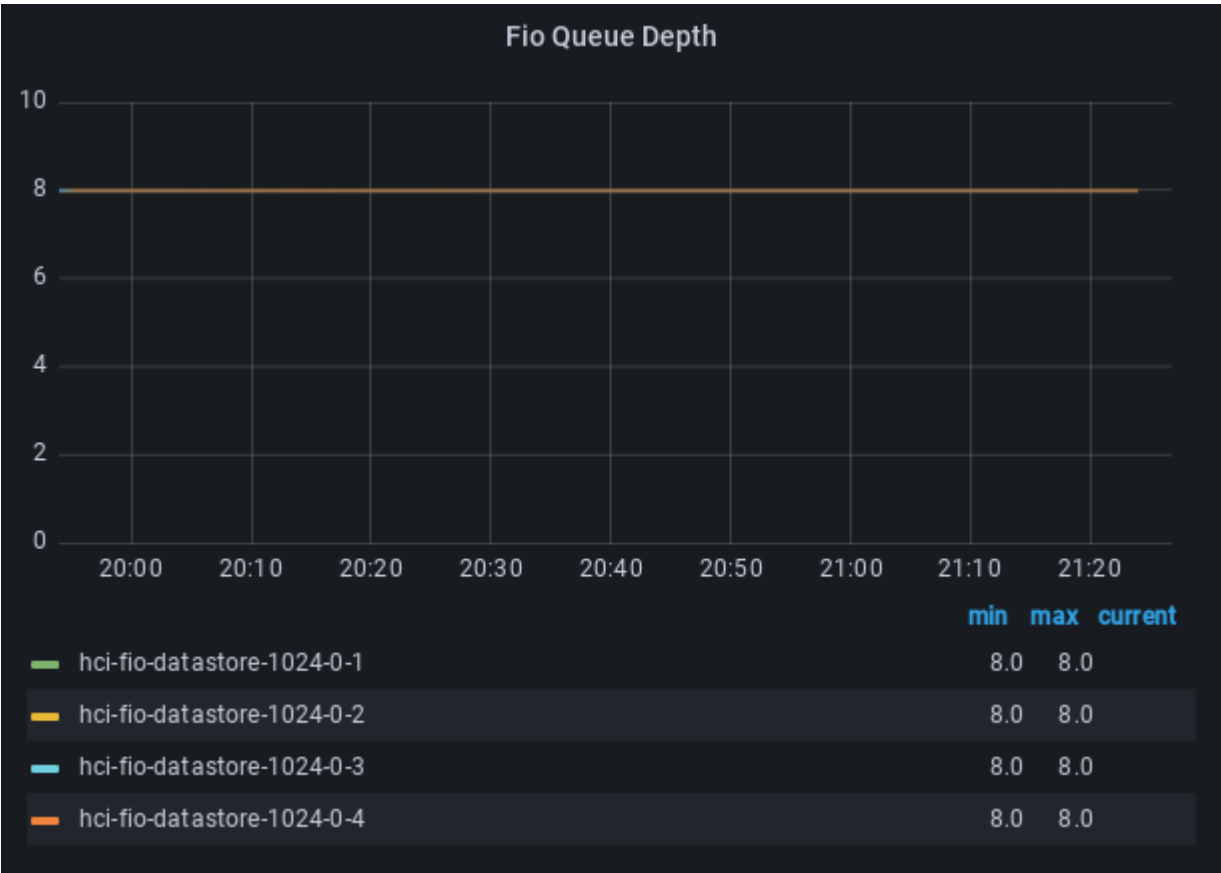


| | min | max | current |
|----------------------------|------|------|---------|
| hci-fio-datastore-1024-0-1 | 0 ns | 0 ns | |
| hci-fio-datastore-1024-0-2 | 0 ns | 0 ns | |
| hci-fio-datastore-1024-0-3 | 0 ns | 0 ns | |
| hci-fio-datastore-1024-0-4 | 0 ns | 0 ns | |

Write 95th Percentile Latency



| | min | max | current |
|----------------------------|------|------------|---------|
| hci-fio-datastore-1024-0-1 | 0 ns | 231.735 ms | |
| hci-fio-datastore-1024-0-2 | 0 ns | 240.124 ms | |
| hci-fio-datastore-1024-0-3 | 0 ns | 278.921 ms | |
| hci-fio-datastore-1024-0-4 | 0 ns | 238.027 ms | |



Dashboards Links

- [Fio Benchmark Dashboard in Grafana](#)
- [vSAN Performance Stats in Grafana](#)
- [vSAN Performance Service Dashboard in vCenter](#)

HCIBench Configurations

vCenter IP/Hostname: vmw-vc02.aitn.local
Datacenter Name: HomeLab
Cluster Name: VSAN8-Cluster
Network Name: VMs_VLAN101
Use Internal Static IP: false
Reuse Existing VMs: true
Datastore Name: vsanDatastore
Directly Deploy on Hosts: false
Easy Run: true
Easy Run Workloads: 4k70r
4k100r
8k50r
256k0r
Storage Policy Name: Datastore Default Policy
Guest VM Name Prefix: hci-fio
Clear Read/Write Cache/Buffer Before Test: false
vSAN Debug Mode: true
Number of Guest VMs: 12
Number of vCPU per VM: 4
Size(GB) of RAM per VM: 8
Number of Data Disk per VM: 8
Size of Data Disk in GB: 1
multi_writer: false
Workload Parameter File Source: /opt/tmp/tmp1675280261
Test Name: easy-run-1675280261
Virtual Disk Preparation Method: RANDOM
Tool to Use: fio
Delete Guest VMs after Testing: false

vSAN Configurations

Local vSAN Datastore Name: vsanDatastore
vSAN ESA Enabled: True
vSAN Type: Single Tier Storage Pool
Number of Hosts: 3
Number of Disks in the Storage Pool: 6
Space Efficiency: Compression Only
Data At-Rest Encryption: false
Data In-Transit Encryption: false
Fault Tolerance Preference: RAID-1(Mirroring)-Performance
Host Primary Fault Tolerance: 1
Host Secondary Fault Tolerance: 0
Checksum Disabled: False

Capacity: 1564 GB
Freespace: 1372 GB
Local: 'True'

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Cluster Hosts Map

VSAN8-Cluster:
- esxi8-01.aitn.local
- esxi8-02.aitn.local
- esxi8-03.aitn.local

Benchmark Tool Configurations

```
; Auto generated FIO parameter file
; block_size: 256k
; testing_time: 3600
; warmup_time: 1800
; nb_disks: 8
; io_rate: None
; read_pct: 0
; random_pct: 0
; working_set: 100
; nb_threads: 1
```

```
[global]
runtime=3600
time_based=1
ramp_time=1800
direct=1
buffered=0
fsync=0
readwrite=write
random_generator=tausworthe64
blocksize=256K
ioengine=libaio
group_reporting
lat_percentiles=1
continue_on_error=all
```

```
[[job0]
filename=/dev/sda
size=100%
iodepth=1
```

```
[[job1]
filename=/dev/sdb
size=100%
iodepth=1
```

```
[[job2]
filename=/dev/sdc
size=100%
iodepth=1
```

```
[[job3]
filename=/dev/sdd
size=100%
iodepth=1
```

```
[[job4]
filename=/dev/sde
```

size=100%
iodepth=1

[job5]
filename=/dev/sdf
size=100%
iodepth=1

[job6]
filename=/dev/sdg
size=100%
iodepth=1

[job7]
filename=/dev/sdh
size=100%
iodepth=1