

HCIBench Report

Test Case Name: fio-8vmdk-100ws-4k-70rdpct-100randompct-4threads-1691253060

Report Date: 2023-08-05 18:11:36 +0000

Generated by: [HCIBench 2.8.2](#)

Performance Results

Datstore: vsanDatastore

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JOB_NAME: job0

Number of VMs: 6

I/O per Second: 165960.16 IO/S

Throughput: 648.00 MB/s

Read Latency: 0.98 ms

Write Latency: 1.60 ms

95th Percentile Read Latency: 2.00 ms

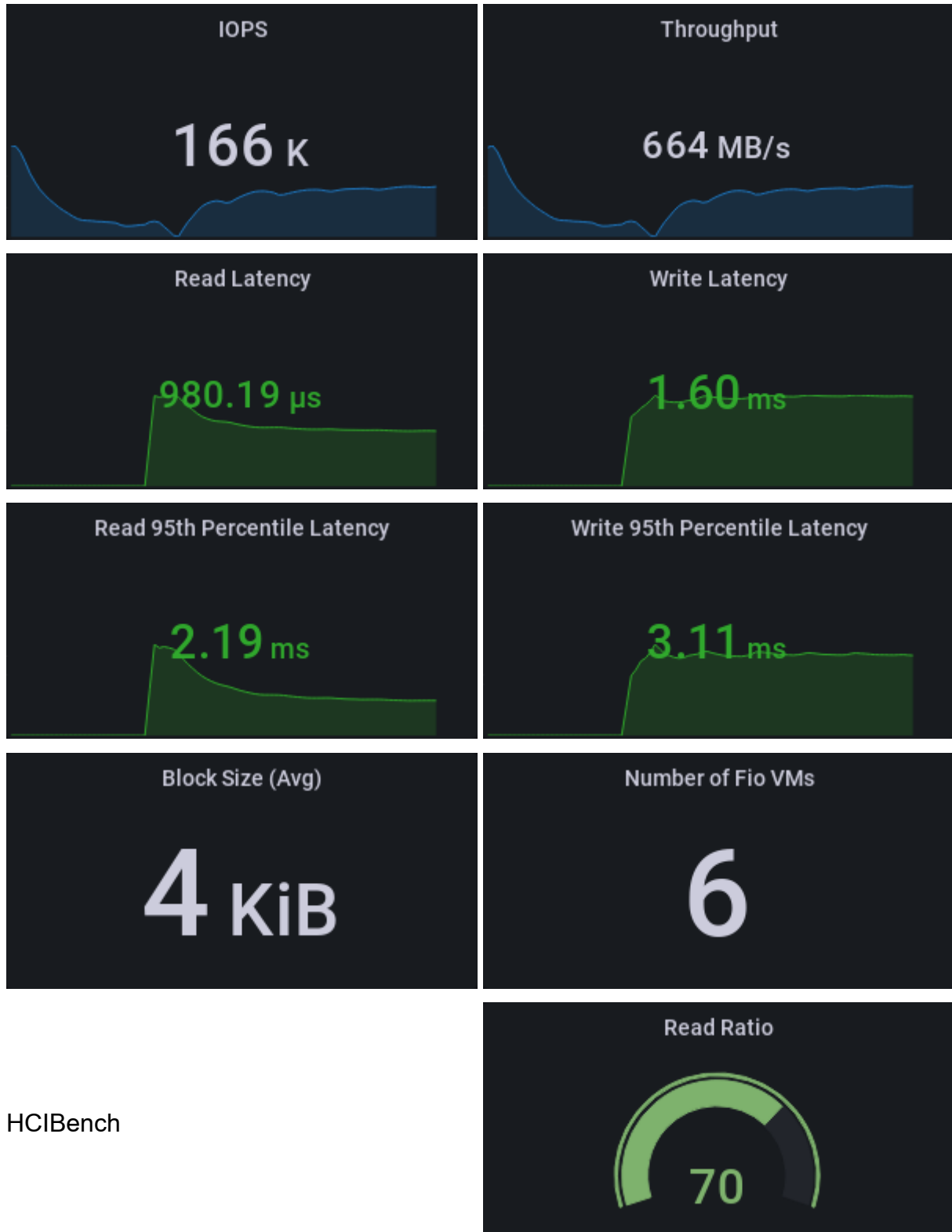
95th Percentile Write Latency: 3.00 ms

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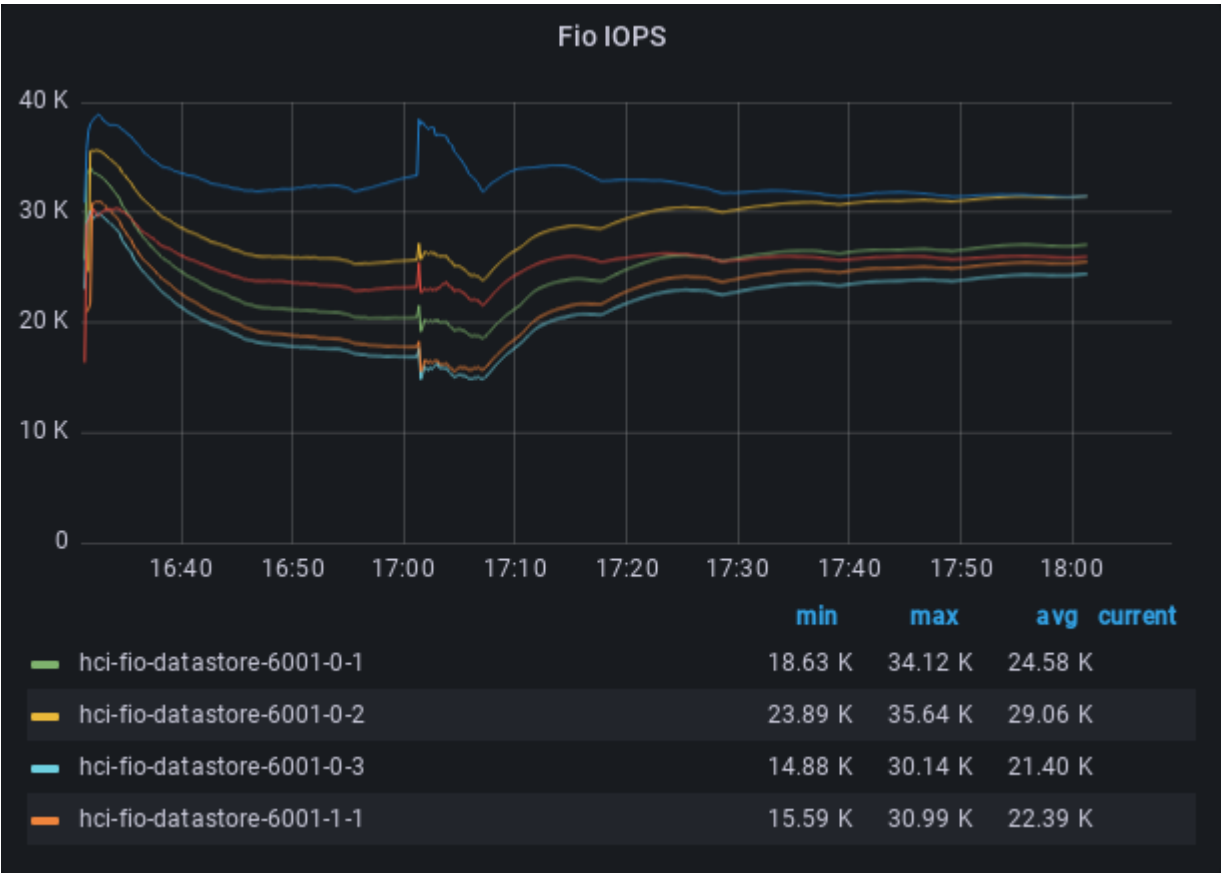
Resource Usage

Cluster	cpu.usage	cpu.utilization	mem.usage
EE-Cluster	65.9%	63.93%	16.75%

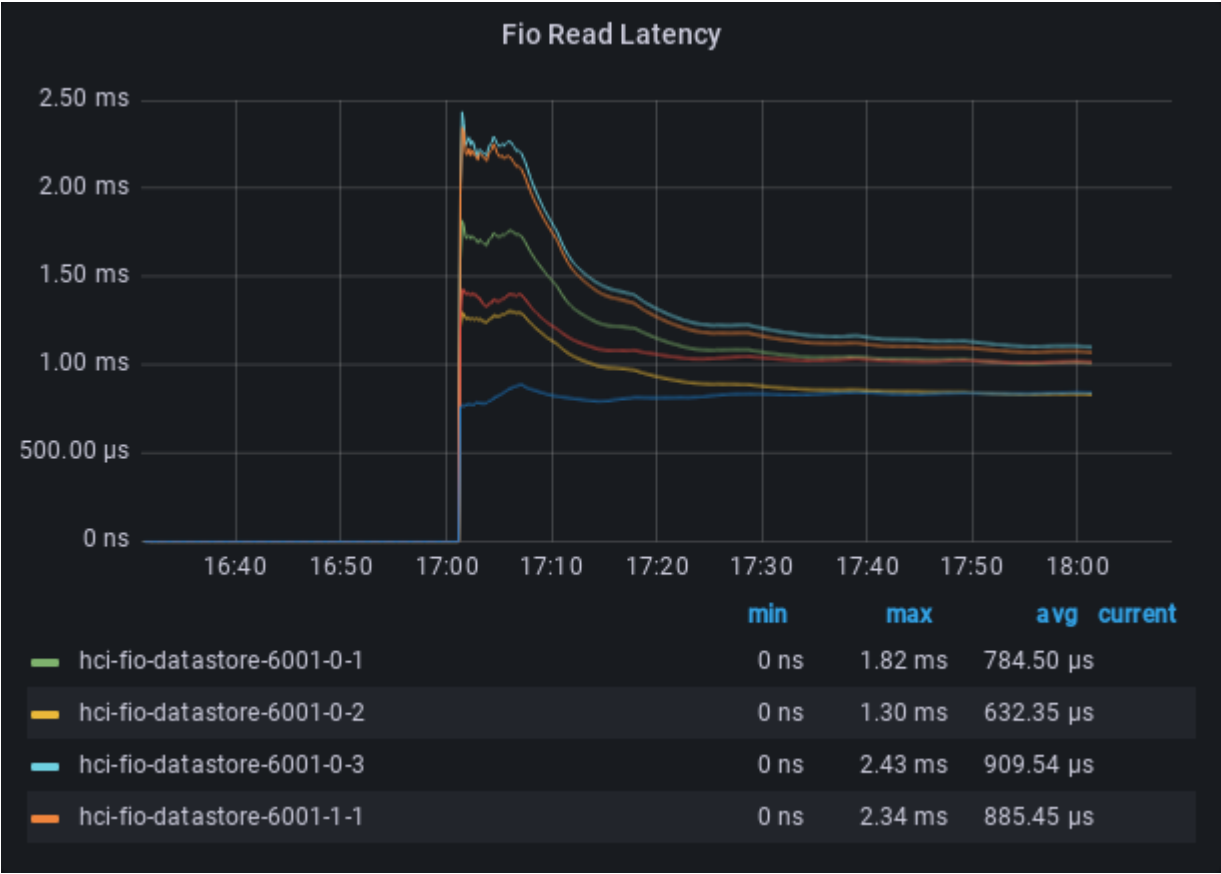
Performance Charts



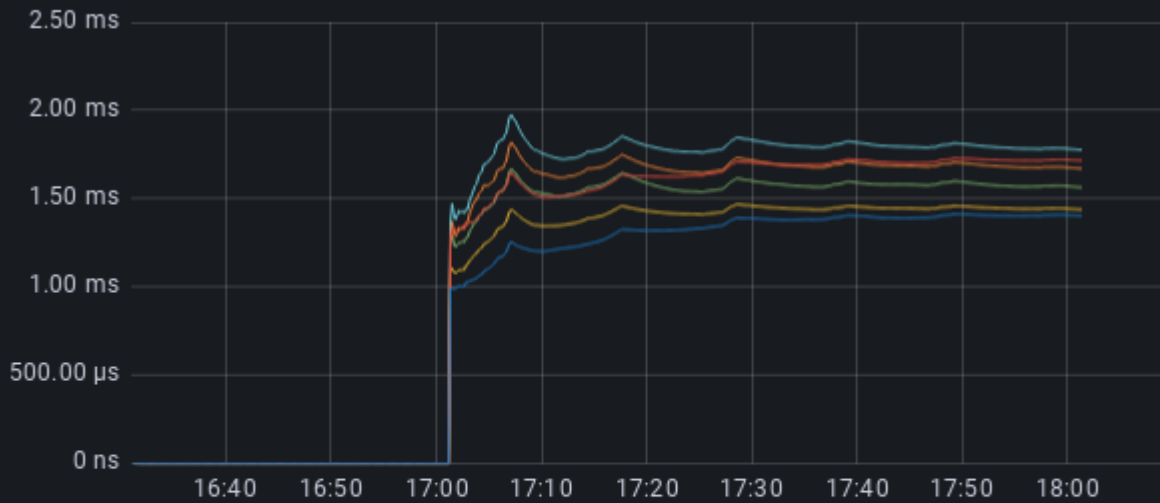
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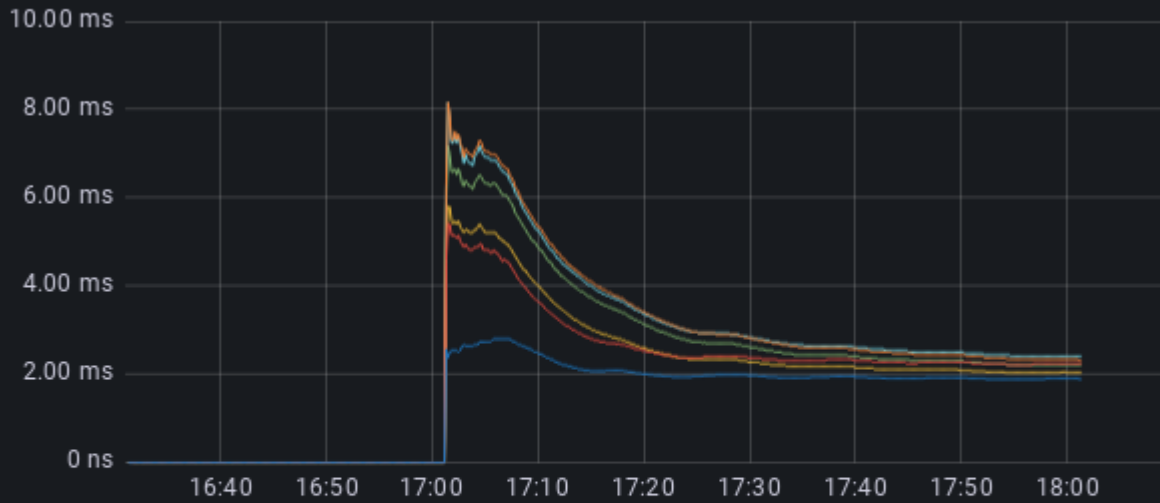


Fio Write Latency



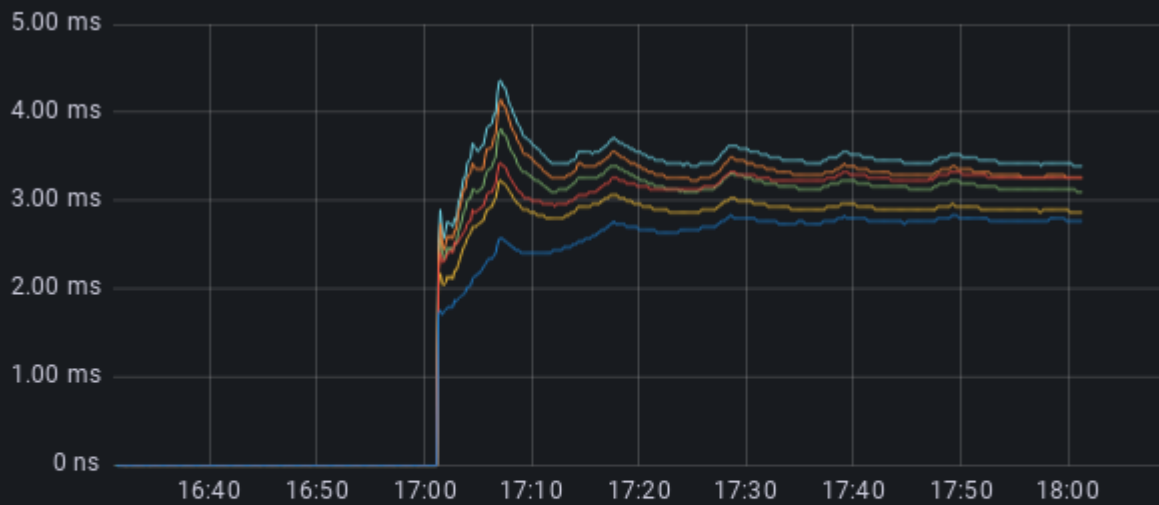
	min	max	avg	current
hci-fio-datastore-6001-0-1	0 ns	2 ms	1 ms	
hci-fio-datastore-6001-0-2	0 ns	1 ms	947 μ s	
hci-fio-datastore-6001-0-3	0 ns	2 ms	1 ms	
hci-fio-datastore-6001-1-1	0 ns	2 ms	1 ms	

Read 95th Percentile Latency



	min	max	current
hci-fio-datastore-6001-0-1	0 ns	7.18 ms	
hci-fio-datastore-6001-0-2	0 ns	5.80 ms	
hci-fio-datastore-6001-0-3	0 ns	8.16 ms	
hci-fio-datastore-6001-1-1	0 ns	8.16 ms	

Write 95th Percentile Latency



	min	max	current
hci-fio-datastore-6001-0-1	0 ns	3.817 ms	
hci-fio-datastore-6001-0-2	0 ns	3.228 ms	
hci-fio-datastore-6001-0-3	0 ns	4.358 ms	
hci-fio-datastore-6001-1-1	0 ns	4.145 ms	

Fio Queue Depth



	min	max	current
hci-fio-datastore-6001-0-1	32.0	32.0	
hci-fio-datastore-6001-0-2	32.0	32.0	
hci-fio-datastore-6001-0-3	32.0	32.0	
hci-fio-datastore-6001-1-1	32.0	32.0	

Dashboards Links

[Fio Benchmark Dashboard in Grafana](#)

[vSAN Performance Stats in Grafana](#)

[vSAN Observer Dashboard](#)

[vSAN Overview Dashboard in Grafana](#)

HCIBench Configurations

Delete Guest VMs after Testing: false
Multi-Write VMDK: false
Size of Data Disk in GB: 8
Virtual Disk Preparation Method: ZERO
Datastore Name: vsanDatastore
Clear Read/Write Cache/Buffer Before Test: true
Use Internal Static IP: false
Number of vCPU per VM: 4
Number of Data Disk per VM: 8
Storage Policy Name: Datastore Default Policy
Directly Deploy on Hosts: false
vSAN Debug Mode: true
Workload Parameter File Source: /opt/tmp/tmp1691251758
Datacenter Name: EE Training Datacenter
Size(GB) of RAM per VM: 8
Cluster Name: EE-Cluster
Reuse Existing VMs: false
Network Name: VM Network
Easy Run: true
Easy Run Workloads: 4k70r
vCenter IP/Hostname: vcenter7.cyrus-consultants.co.uk
Tool to Use: fio
Guest VM Name Prefix: hci-fio
Test Name: easy-run-1691251758
Number of Guest VMs: 6
VM Folder Name: HCI-Bench-Test-Folder

vSAN Configurations

Local vSAN Datastore Name: vsanDatastore
vSAN ESA Enabled: False
vSAN Type: All-Flash
Number of Hosts: 3
Disk Groups per Host: 1
Total Cache Disk Size: 1047 GB
Capacity Disk per Disk Group: 2
Space Efficiency: None
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: 2445 GB
Freespace: 2098 GB
Local: 'True'

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Cluster Hosts Map

EE-Cluster:
- esxi011.cyrus-consultants.co.uk
- esxi007.cyrus-consultants.co.uk
- esxi009.cyrus-consultants.co.uk

Benchmark Tool Configurations

```
; Auto generated FIO parameter file
; block_size: 4k
; testing_time: 3600
; warmup_time: 1800
; nb_disks: 8
; io_rate: None
; read_pct: 70
; random_pct: 100
; working_set: 100
; nb_threads: 4
```

```
[global]
runtime=3600
time_based=1
ramp_time=1800
direct=1
buffered=0
fsync=0
readwrite=randrw
rwmixread=70
percentage_random=100
random_generator=tausworthe64
blocksize=4K
ioengine=libaio
group_reporting
lat_percentiles=1
continue_on_error=all
```

```
[job0]
filename=/dev/sda
size=100%
iodepth=4
```

```
[job1]
filename=/dev/sdb
size=100%
iodepth=4
```

```
[job2]
filename=/dev/sdc
size=100%
iodepth=4
```

```
[job3]
filename=/dev/sdd
size=100%
iodepth=4
```

[[job4]
filename=/dev/sde
size=100%
iodepth=4

[[job5]
filename=/dev/sdf
size=100%
iodepth=4

[[job6]
filename=/dev/sdg
size=100%
iodepth=4

[[job7]
filename=/dev/sdh
size=100%
iodepth=4