

# HCIBench Report

Test Case Name: fio-8vmdk-100ws-4k-100rdpct-100randompct-4threads-1691261495

Report Date: 2023-08-05 20:30:06 +0000

Generated by: [HCIBench 2.8.2](#)

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## Performance Results

Datstore: vsanDatastore

```
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JOB_NAME: job0
Number of VMs: 6
I/O per Second: 311504.12 IO/S
Throughput: 1216.00 MB/s
Read Latency: 0.62 ms
Write Latency: 0.00 ms
95th Percentile Read Latency: 1.00 ms
95th Percentile Write Latency: 0.00 ms
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```

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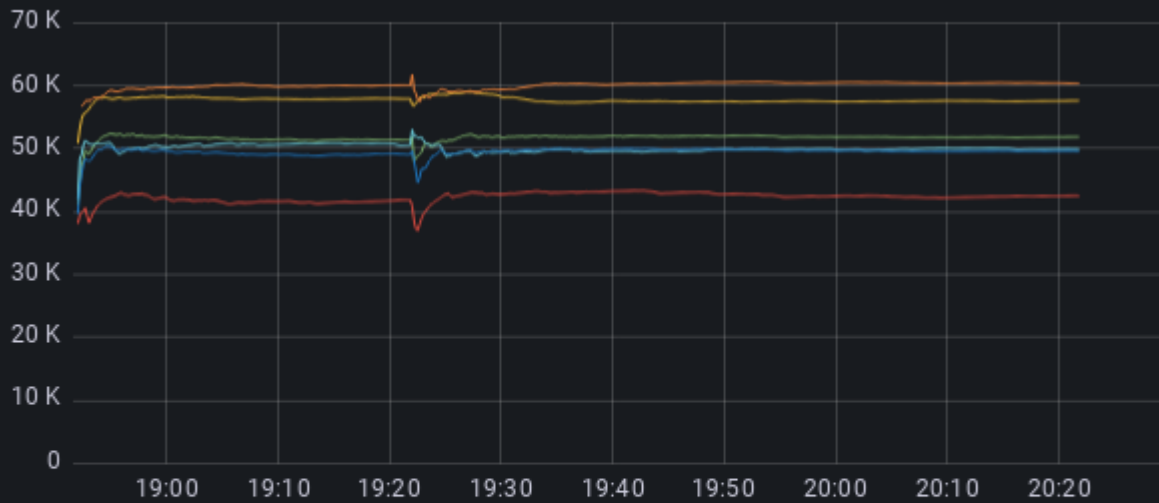
## Resource Usage

Cluster	cpu.usage	cpu.utilization	mem.usage
EE-Cluster	79.1%	74.66%	17.13%

## Performance Charts

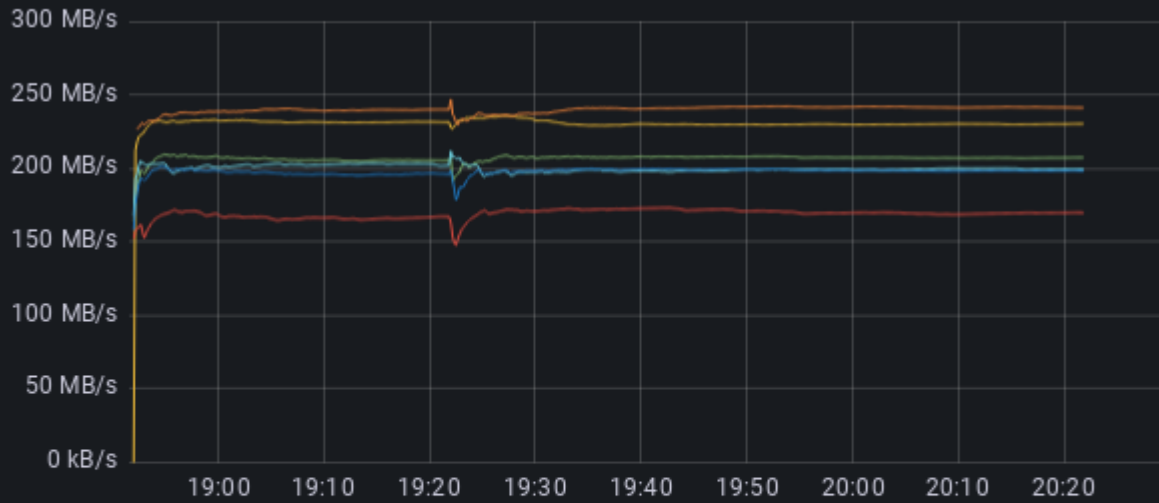


### Fio IOPS



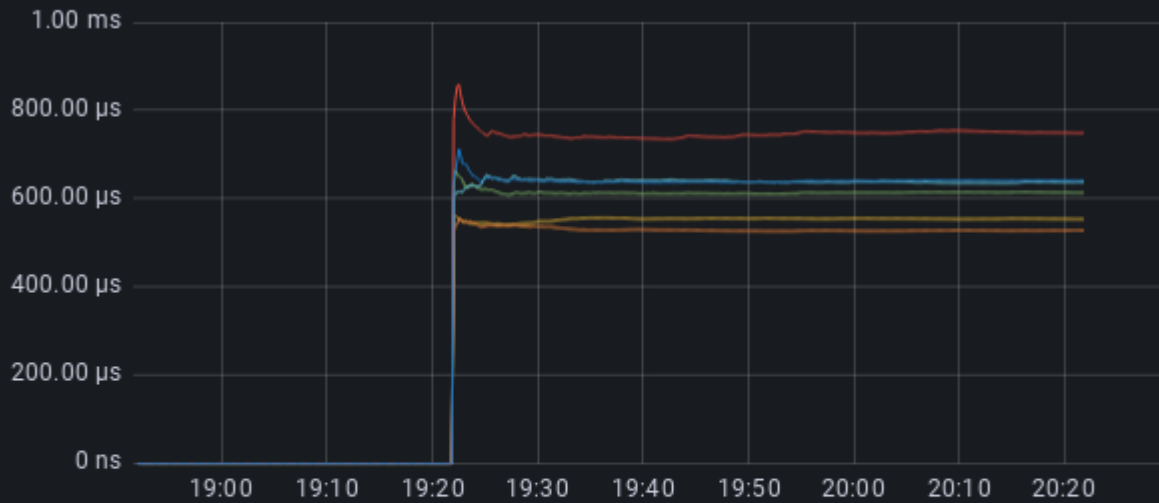
	min	max	avg current
hci-fio-datastore-6001-0-1	41.02 K	52.32 K	51.62 K
hci-fio-datastore-6001-0-2	50.79 K	58.94 K	57.66 K
hci-fio-datastore-6001-0-3	41.89 K	52.94 K	50.00 K
hci-fio-datastore-6001-1-1	56.66 K	61.72 K	59.95 K

### Fio Throughput



	min	max	avg current
hci-fio-datastore-6001-0-1	164 MB/s	209 MB/s	206 MB/s
hci-fio-datastore-6001-0-2	0 kB/s	236 MB/s	230 MB/s
hci-fio-datastore-6001-0-3	168 MB/s	212 MB/s	200 MB/s
hci-fio-datastore-6001-1-1	227 MB/s	247 MB/s	240 MB/s

### Fio Read Latency



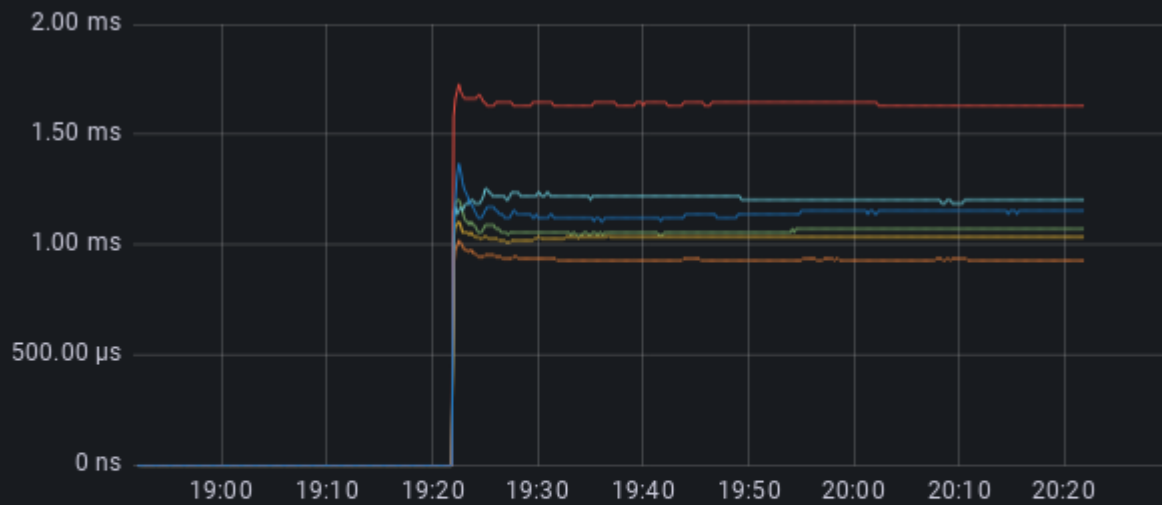
	min	max	avg current
hci-fio-datastore-6001-0-1	0 ns	664.88 μs	409.36 μs
hci-fio-datastore-6001-0-2	0 ns	561.83 μs	369.60 μs
hci-fio-datastore-6001-0-3	0 ns	654.25 μs	425.65 μs
hci-fio-datastore-6001-1-1	0 ns	555.03 μs	354.76 μs

### Fio Write Latency



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

### Read 95th Percentile Latency

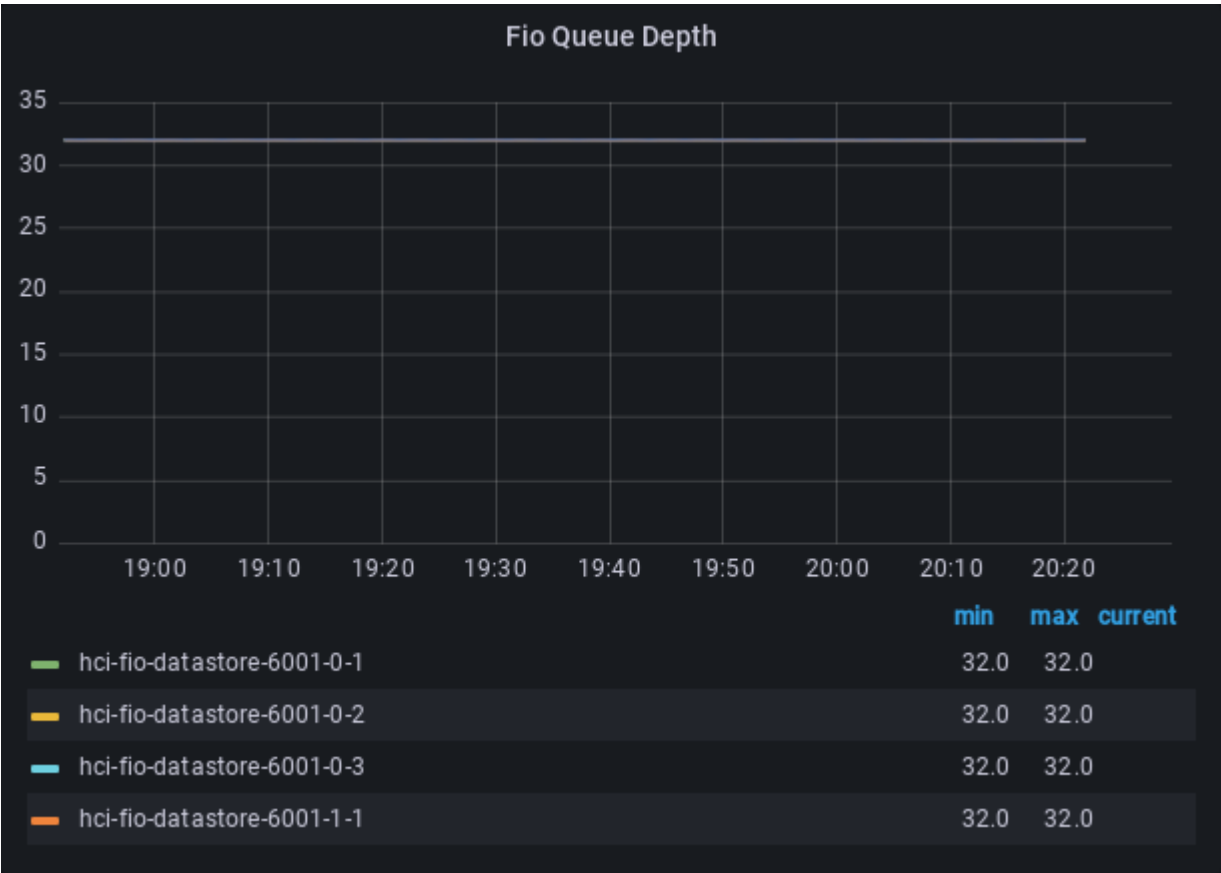


	min	max	current
hci-fio-datastore-6001-0-1	0 ns	1.20 ms	
hci-fio-datastore-6001-0-2	0 ns	1.11 ms	
hci-fio-datastore-6001-0-3	0 ns	1.25 ms	
hci-fio-datastore-6001-1-1	0 ns	1.02 ms	

### Write 95th Percentile Latency



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



## Dashboards Links

- [Fio Benchmark Dashboard in Grafana](#)
- [vSAN Performance Stats in Grafana](#)
- [vSAN Observer Dashboard](#)
- [vSAN Overview Dashboard in Grafana](#)

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## HCIBench Configurations

Delete Guest VMs after Testing: false  
Multi-Write VMDK: false  
Size of Data Disk in GB: 4  
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/tmp1691260648  
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: 4k100r  
vCenter IP/Hostname: vcenter7.cyrus-consultants.co.uk  
Tool to Use: fio  
Guest VM Name Prefix: hci-fio  
Test Name: easy-run-1691260648  
Number of Guest VMs: 6  
VM Folder Name: HCI-Bench-Test-Folder

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# 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

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Capacity: 2445 GB  
Freespace: 1355 GB  
Local: 'True'

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Cluster Hosts Map

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



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# 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: 100
; 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=randread
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