

HCIBench Report

Test Case Name: vdb-4vmdk-80ws-4k-70rdpct-100randompct-8threads-1698504925

Report Date: 2023-10-28 15:22:37 +0000

Generated by: [HCIBench 2.8.2](#)

Performance Results

Datastore: vSAN-ESA-01

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Version: vdbench50407

Run Def: RD=run1; I/O rate: Uncontrolled MAX; elapsed=1200 warmup=300; For loops: None

Number of VMs: 8

I/O per Second: 323522.0 IO/S

Throughput: 1263.76 MB/s

Latency: 0.83 ms

Read Latency: 0.4 ms

Write Latency: 1.85 ms

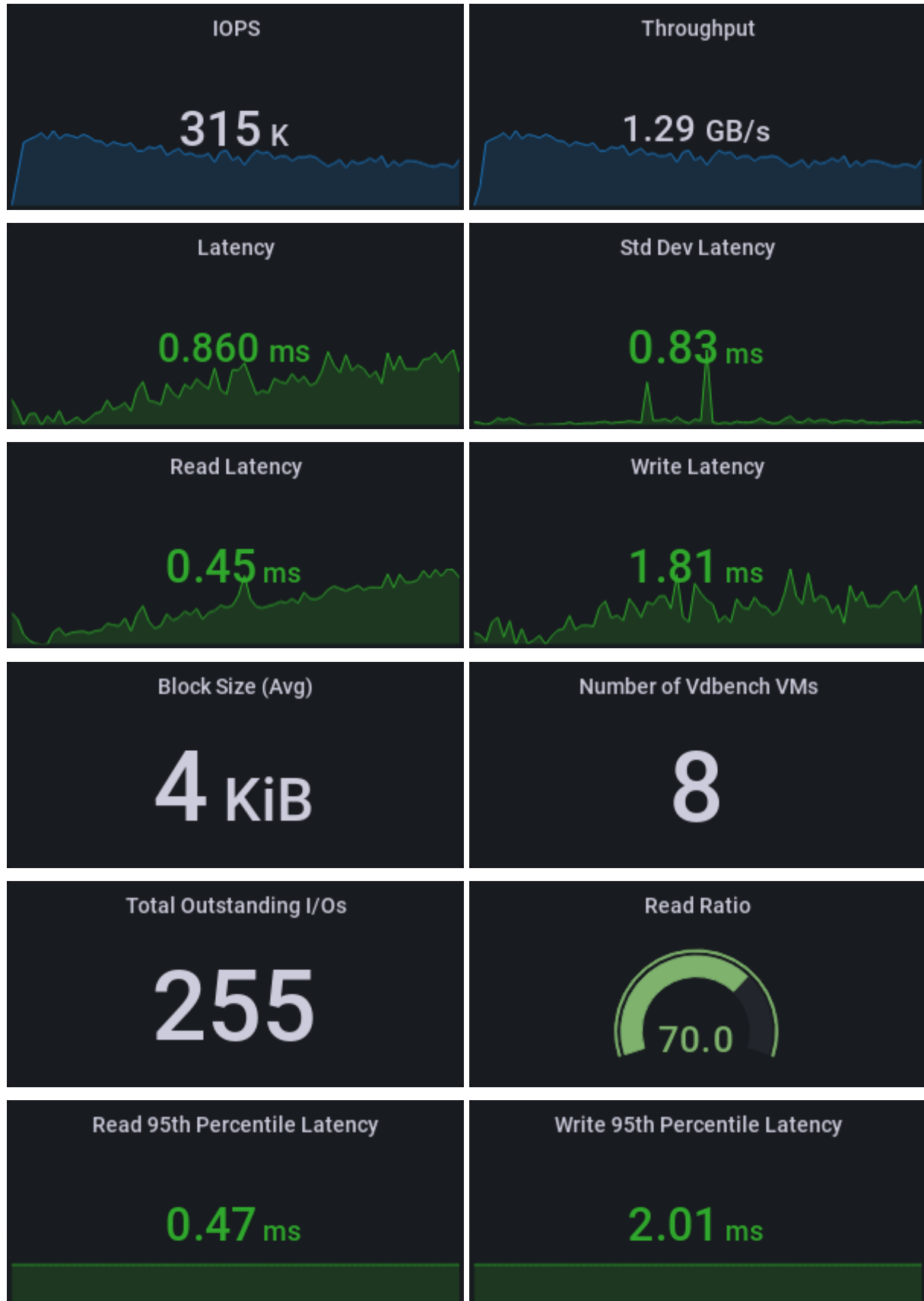
95th Percentile Latency: 2.44 ms

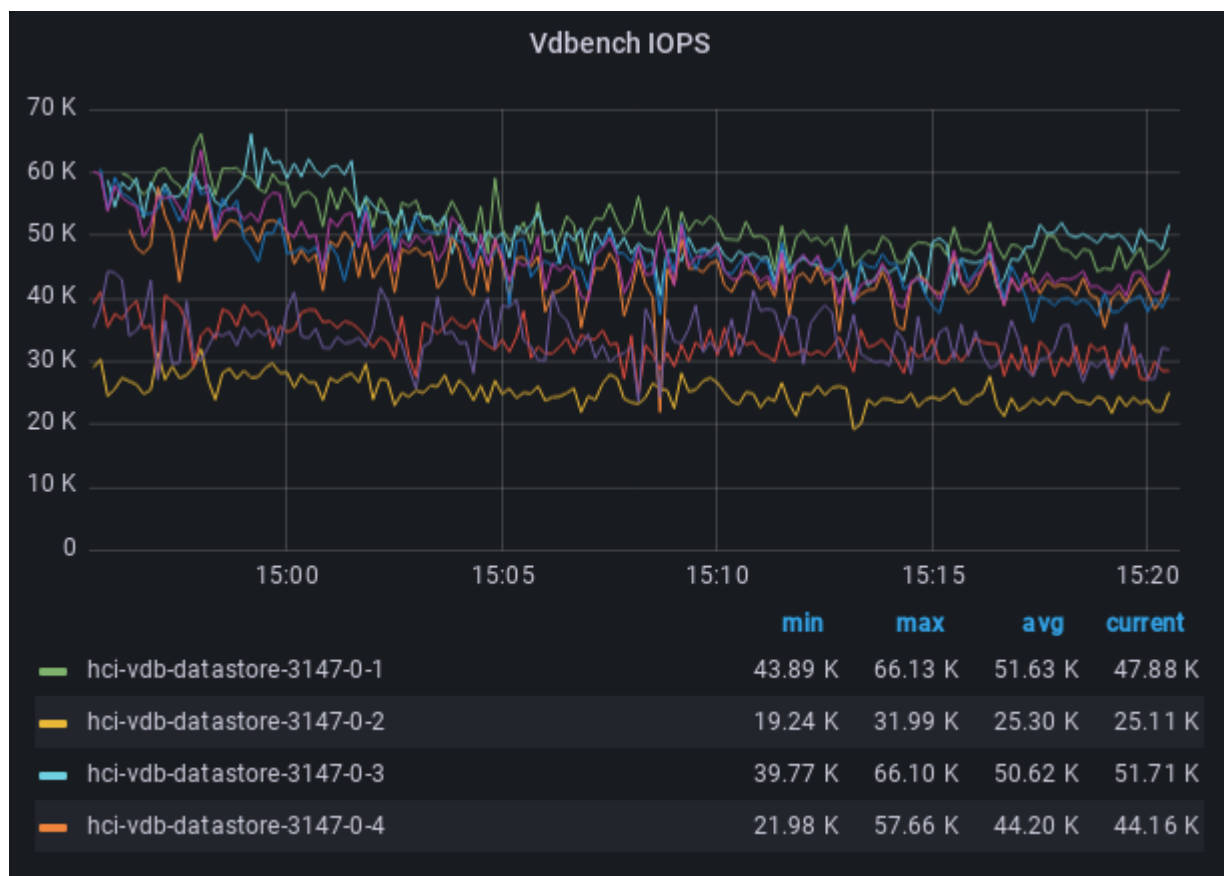
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Resource Usage

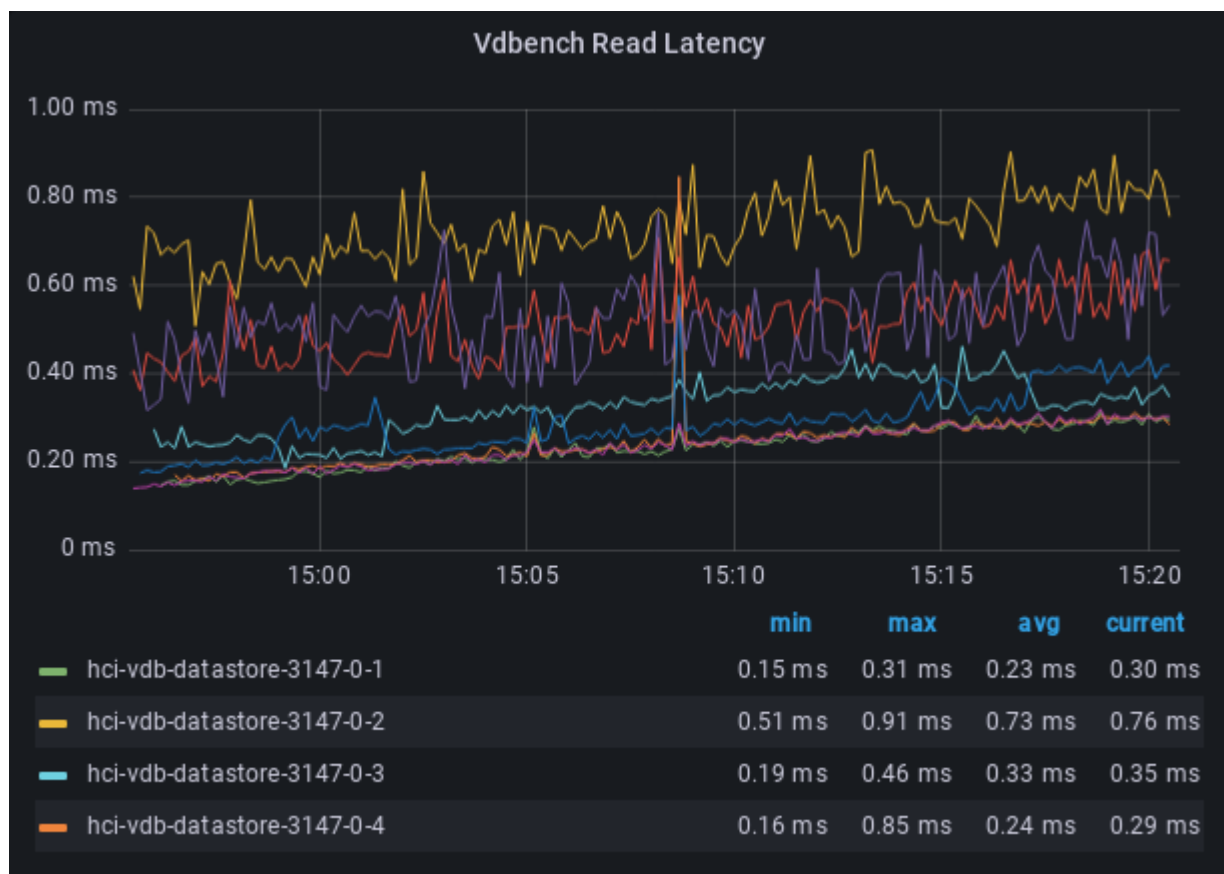
Cluster	cpu.usage	cpu.utilization	mem.usage
LINU-HOMELAB-Cluster	52.72%	40.24%	41.11%

Performance Charts

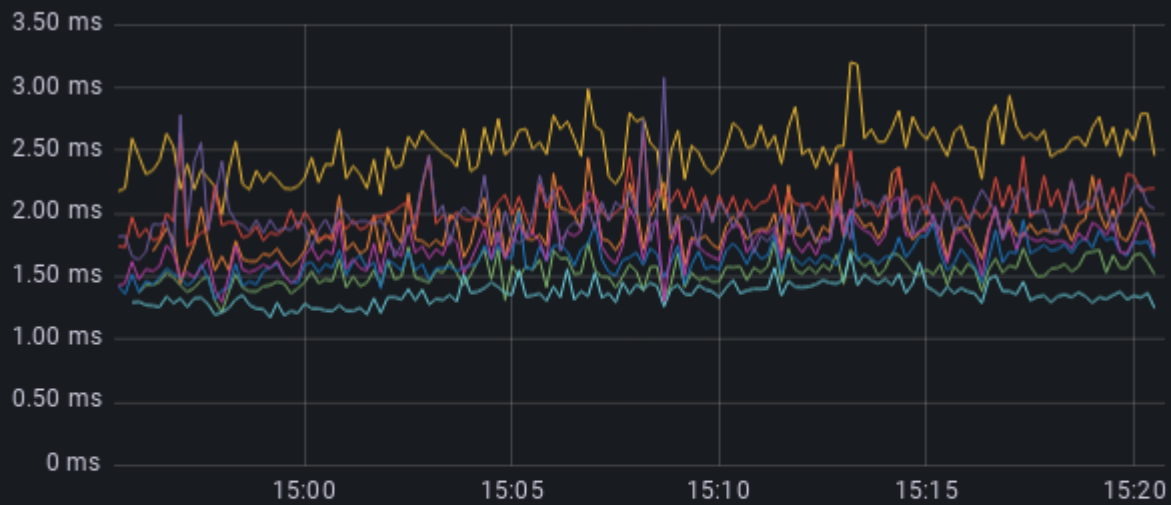




HCIBench



Vdbench Write Latency

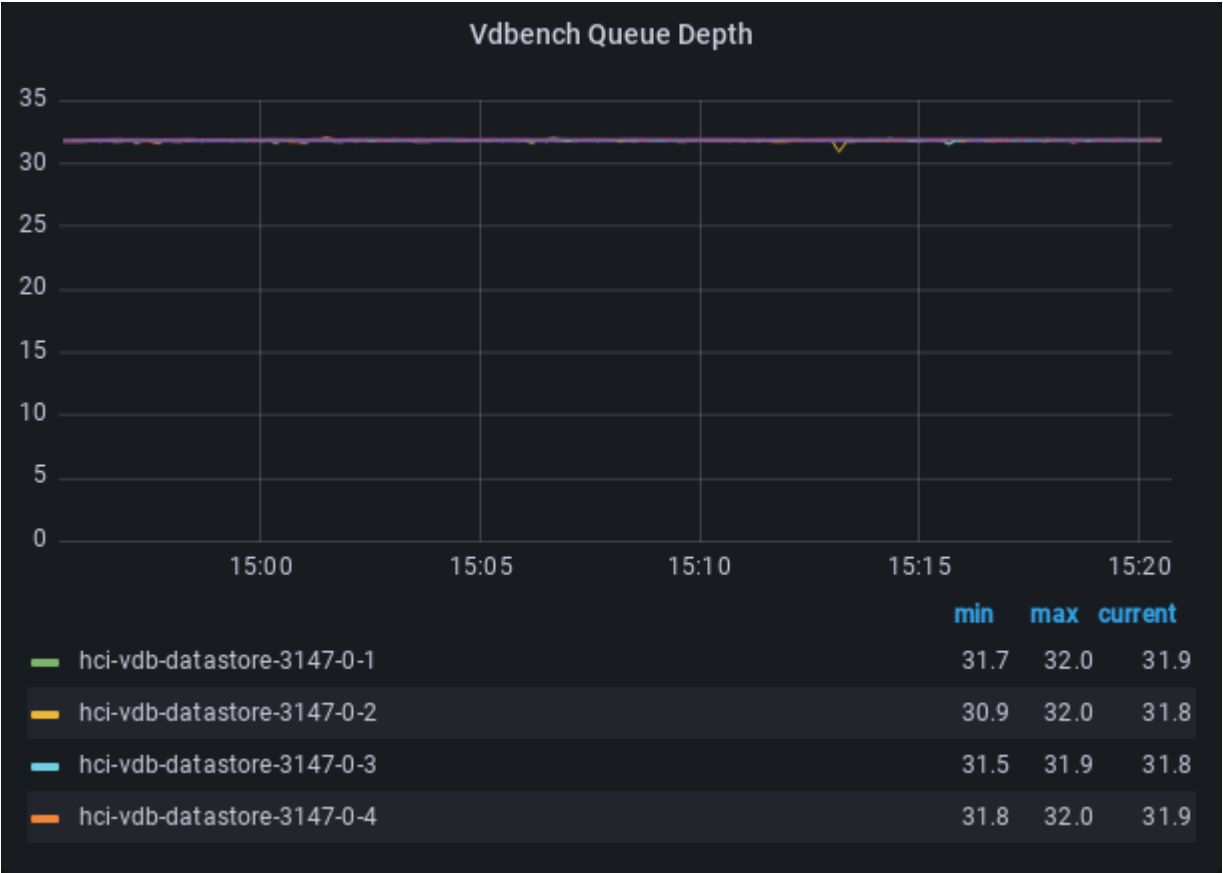
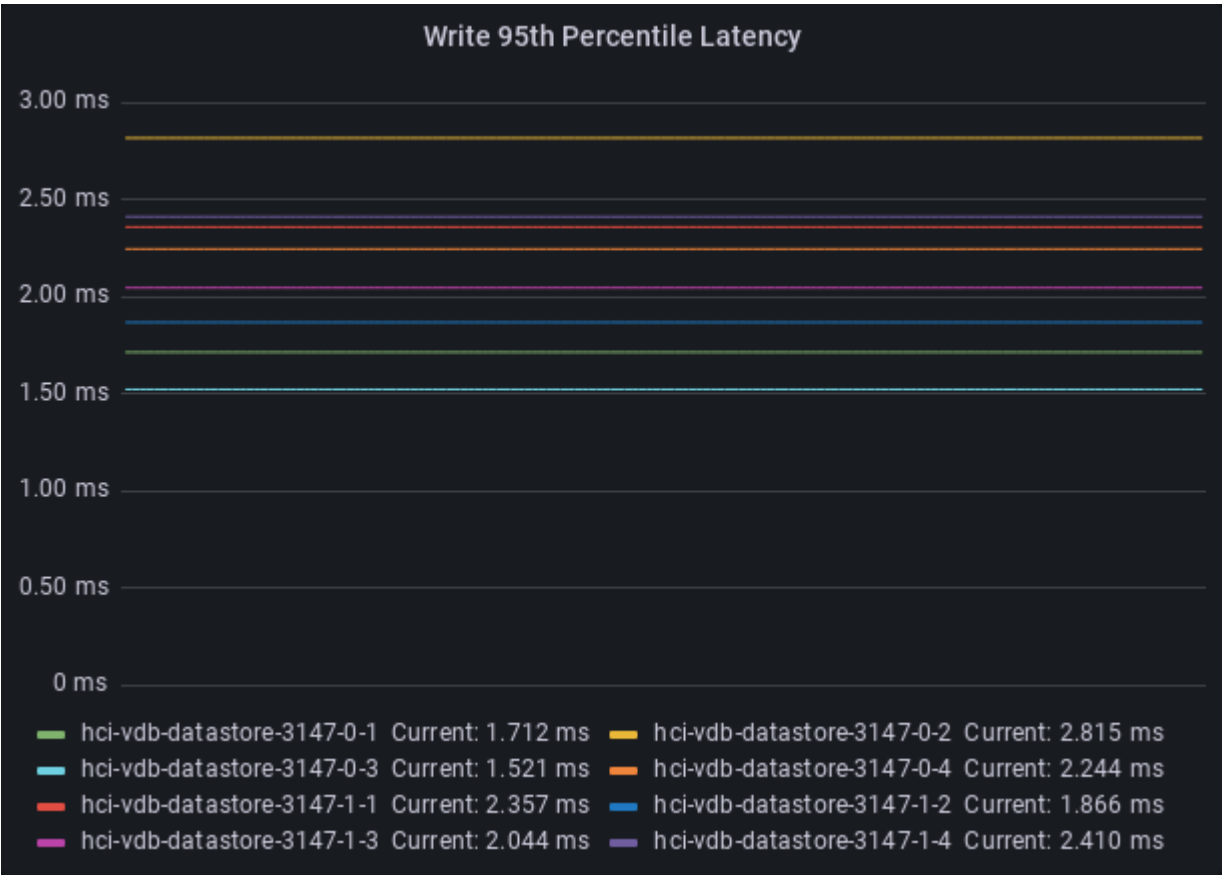


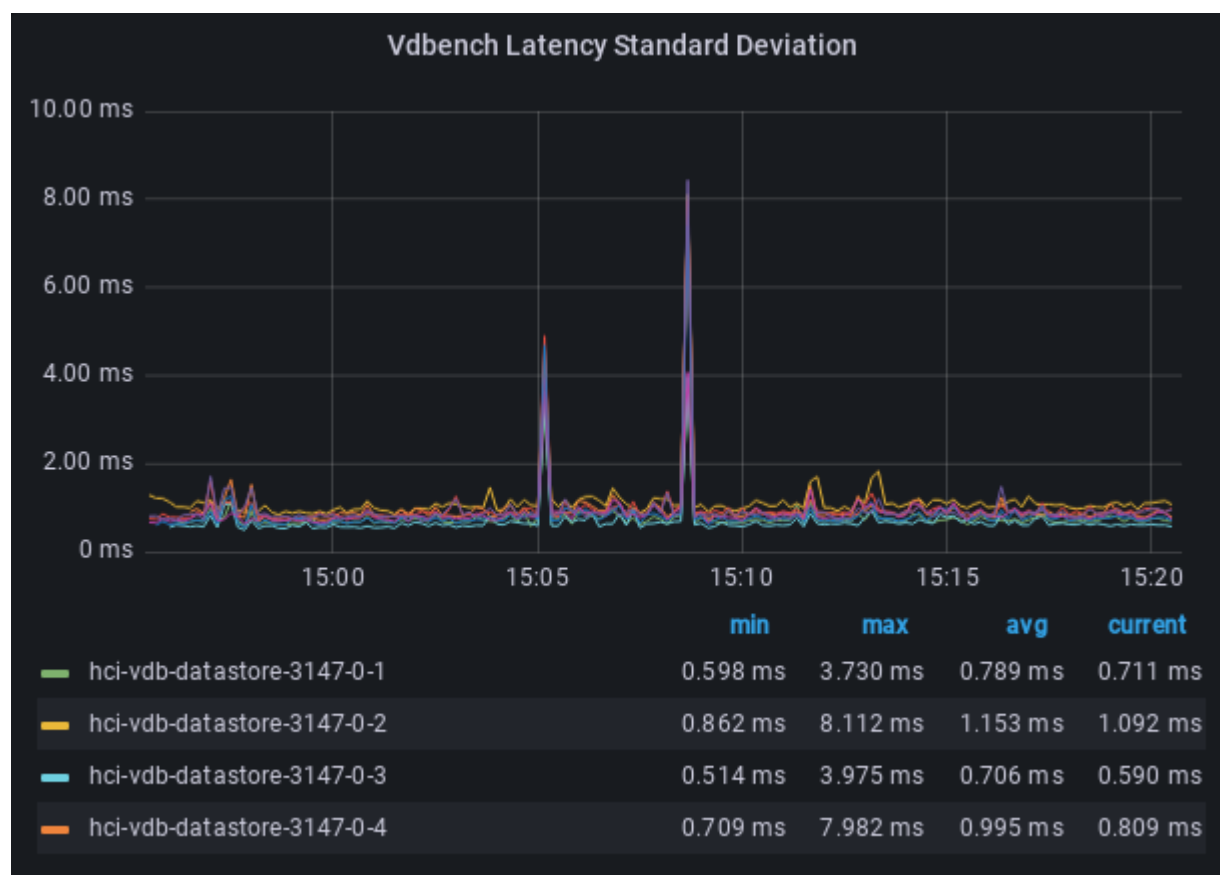
	min	max	avg	current
hci-vdb-datastore-3147-0-1	1 ms	2 ms	2 ms	2 ms
hci-vdb-datastore-3147-0-2	2 ms	3 ms	3 ms	2 ms
hci-vdb-datastore-3147-0-3	1 ms	2 ms	1 ms	1 ms
hci-vdb-datastore-3147-0-4	1 ms	2 ms	2 ms	2 ms

Read 95th Percentile Latency



hci-vdb-datastore-3147-0-1	Current: 0.30 ms	hci-vdb-datastore-3147-0-2	Current: 0.86 ms
hci-vdb-datastore-3147-0-3	Current: 0.42 ms	hci-vdb-datastore-3147-0-4	Current: 0.30 ms
hci-vdb-datastore-3147-1-1	Current: 0.66 ms	hci-vdb-datastore-3147-1-2	Current: 0.42 ms
hci-vdb-datastore-3147-1-3	Current: 0.30 ms	hci-vdb-datastore-3147-1-4	Current: 0.69 ms





Dashboards Links

[Vdbench Benchmark Dashboard in Grafana](#)

[vSAN Performance Service Dashboard in vCenter](#)

HCIBench Configurations

Delete Guest VMs after Testing: false
Multi-Write VMDK: false
Size of Data Disk in GB: 64
Virtual Disk Preparation Method: NONE
Datastore Name: vSAN-ESA-01
Clear Read/Write Cache/Buffer Before Test: false
Use Internal Static IP: true
Number of vCPU per VM: 4
Number of Data Disk per VM: 4
Storage Policy Name: VM Storage Policy [LINU-HOMELAB
RAID5]
Internal Static IP Prefix: Customize 10.54.100.161/24
Directly Deploy on Hosts: false
vSAN Debug Mode: false
Workload Parameter File Source: /opt/tmp/tmp20231028145222
Datacenter Name: LINU-HOMELAB
Size(GB) of RAM per VM: 16
Cluster Name: LINU-HOMELAB-Cluster
Reuse Existing VMs: false
Network Name: EXT_Network_PG (1G)
Easy Run: false
vCenter IP/Hostname: vcenter.vsphere.linuchan.moe
Tool to Use: vdbench
Guest VM Name Prefix: hci-vdb
Test Name: TEST01
Number of Guest VMs: 8

vSAN Configurations

Local vSAN Datastore Name: vSAN-ESA-01
vSAN ESA Enabled: True
vSAN Type: Single Tier Storage Pool
Number of Hosts: 3
Number of Disks in the Storage Pool: 11
Space Efficiency: Compression Only
Data At-Rest Encryption: false
Data In-Transit Encryption: false
Fault Tolerance Preference: RAID-5/6(ErasureCoding)-Capacity
Host Primary Fault Tolerance: 1
Host Secondary Fault Tolerance: 0
Checksum Disabled: False

Capacity: 37557 GB
Freespace: 32388 GB
Local: 'True'

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Cluster Hosts Map

LINU-HOMELAB-Cluster:
- esxi02.vsphere.linuchan.moe
- esxi03.vsphere.linuchan.moe
- esxi01.vsphere.linuchan.moe

Benchmark Tool Configurations

*Auto Generated VDBench Parameter File

*4 raw disk, 100% random, 70% read

*SD: Storage Definition

*WD: Workload Definition

*RD: Run Definition

debug=86

data_errors=10000

sd=sd1,lun=/dev/sda,openflags=o_direct,hitarea=0,range=(0,80),threads=8

sd=sd2,lun=/dev/sdb,openflags=o_direct,hitarea=0,range=(0,80),threads=8

sd=sd3,lun=/dev/sdc,openflags=o_direct,hitarea=0,range=(0,80),threads=8

sd=sd4,lun=/dev/sdd,openflags=o_direct,hitarea=0,range=(0,80),threads=8

wd=wd1,sd=(sd1,sd2,sd3,sd4),xfersize=4k,rdpct=70,seekpct=100

rd=run1,wd=wd1,iorate=max,elapsed=1200,warmup=300