

VMmark[®] 4.0.2 Disclosure

Server Vendor & Model: Dell PowerEdge R760
Storage Vendor & Model: Dell PowerMax 8000
Hypervisor: VMware ESXi 8.0 Update 3, Build 24022510
Server Management Software: VMware vCenter Server 8.0 Update 3, Build 24022515

**VMmark 4.0.2 Score =
2.50 @ 3 Tiles**

Number of Hosts: 2	Uniform Hosts: yes	Total sockets/cores/threads in test: 4/256/512
Tested By: Dell Technologies	Test Date: 01-17-2025	SUT Availability Date: 06-25-2024
Performance Section Performance	Configuration Section Configuration	Notes Section Notes for Workload
Virtual Machines Section Virtual Machines		

Performance

TILE_0_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14131.88	9270.42	2882.78	2204.72	1628.50	48065.76	48066.19	48065.66	69.12	1.00	
p1	14134.98	9246.78	2872.10	2106.97	1584.78	47366.84	47367.02	47366.56	69.44	1.00	
p2	14131.69	9253.31	2851.78	2252.53	1654.72	46245.43	46245.50	46245.44	69.16	1.00	
TILE_0_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	0.99	1.03	1.06	0.85	0.85	0.85	0.96	1.00	0.95
p1	1.01	1.01	0.99	0.98	1.04	0.84	0.84	0.84	0.96	1.00	0.94
p2	1.01	1.01	0.98	1.05	1.08	0.82	0.82	0.82	0.96	1.00	0.94
TILE_0_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.23 0.00	0.63 0.00	427.92	454.04	461.99	0.72	0.72	0.72			
p1	0.26 0.01	0.67 0.01	437.73	414.99	432.02	0.76	0.76	0.76			
p2	0.29 0.01	0.75 0.00	446.90	418.22	431.88	0.79	0.79	0.79			
TILE_1_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14151.98	9247.89	2896.10	2014.85	1551.72	59845.22	59845.53	59845.17	71.21	1.00	
p1	14156.59	9234.76	2834.05	1863.22	1334.83	56827.28	56827.18	56827.22	70.69	1.00	
p2	14135.00	9235.14	2803.75	1986.55	1516.75	54673.86	54673.96	54673.89	70.12	1.00	
TILE_1_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	1.00	0.94	1.01	1.06	1.06	1.06	0.99	1.00	1.01
p1	1.01	1.00	0.98	0.87	0.87	1.01	1.01	1.01	0.98	1.00	0.97
p2	1.01	1.00	0.97	0.92	0.99	0.97	0.97	0.97	0.97	1.00	0.97
TILE_1_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.52 0.06	0.63 0.00	426.50	614.25	627.05	0.62	0.62	0.62			
p1	0.58 0.06	0.70 0.01	465.53	632.68	652.88	0.65	0.65	0.65			
p2	0.72 0.09	0.74 0.00	478.75	640.79	669.42	0.68	0.67	0.68			

TILE_2_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14168.41	9210.69	2690.82	1948.42	1441.97	51542.93	51543.95	51544.60	69.40	1.00	
p1	14148.80	9151.87	2674.15	1979.30	1396.20	51722.77	51723.60	51723.64	69.47	1.00	
p2	14149.30	9102.57	2642.62	1956.92	1447.00	50888.68	50889.13	50889.28	69.07	1.00	
TILE_2_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.00	0.93	0.91	0.94	0.91	0.91	0.91	0.96	1.00	0.94
p1	1.01	0.99	0.92	0.92	0.91	0.92	0.92	0.92	0.96	1.00	0.94
p2	1.01	0.99	0.91	0.91	0.95	0.90	0.90	0.90	0.96	1.00	0.94
TILE_2_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.31 0.00	0.80 0.02	567.42	636.94	694.64	0.63	0.63	0.64			
p1	0.35 0.00	0.90 0.01	581.16	605.22	678.38	0.66	0.66	0.66			
p2	0.39 0.01	0.99 0.01	611.13	624.42	689.67	0.69	0.69	0.69			
p0_score:	2.91										
p1_score:	2.85										
p2_score:	2.85										
Infrastructure_Operations_Scores:						vMotion	SVMotion	XVMotion	Deploy		
Completed_Ops_PerHour						29.00	15.00	15.00	14.50		
Avg_Seconds_To_Complete						1.09	32.93	34.50	211.41		
Failures						0.00	0.00	0.00	0.00		
Ratio						0.98	1.15	1.15	1.00		
Number_Of_Threads						1	1	1	1		
Summary							Run_Is_Compliant	Median_Phase(p2)			
Unreviewed_VMmark4_Applications_Score							2.85				
Unreviewed_VMmark4_Infrastructure_Score							1.07				
Unreviewed_VMmark4_Score							2.50 @ 3 Tiles				

Configuration

Virtualization Software	
Hypervisor Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware ESXi 8.0 Update 3, Build 24022510 / 06-25-2024
Server Management Software Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware vCenter Server 8.0 Update 3, Build 24022515 / 06-25-2024
Supplemental Software	None

Servers

Number of Servers in System Under Test (all subsequent fields in this section are per Server)	2
Server Manufacturer and Model	Dell PowerEdge R760
Processor Vendor and Model	Intel Xeon Platinum 8592+
Processor Speed (GHz) / Turbo Boost Speed (GHz)	1.9 GHz / 3.9 GHz
Total Sockets/Total Cores/Total Threads	2 Sockets / 128 Cores / 256 Threads
NUMA Nodes	4
BIOS Version	2.4.4

Memory Size (in GB, Number of DIMMs)	Physical Memory (BIOS): 1536 GB Physical Memory (ESXi): 1536 GB Number of DIMMs: 16
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Memory Type and Speed	Location	Size	Speed	Max Speed	Rank	Type	Detail
	A1	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A2	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A3	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A4	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A5	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A6	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A7	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	A8	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B1	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B2	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B3	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B4	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B5	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B6	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
	B7	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered
B8	96 GB	5600 MT/s	5600 MT/s	2	DDR5	Synchronous, Registered	

Number of SAS Devices	0
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SAS Device Vendors and Models	None
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Number of Virtual Host Bus Adapters	4
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Virtual Host Bus Adapter Vendors and Models	HBA	Model	Speed	Driver	Firmware
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	<table border="1"> <tr> <td>vmhba4</td> <td>QLogic 2x32Gb QLE2772 FC HBA</td> <td>32 Gbps</td> <td>qlnativefc</td> <td>9.14.02 (d0d5)</td> </tr> <tr> <td>vmhba5</td> <td>QLogic 2x32Gb QLE2772 FC HBA</td> <td>32 Gbps</td> <td>qlnativefc</td> <td>9.14.02 (d0d5)</td> </tr> <tr> <td>vmhba64</td> <td>QLogic 2x32Gb QLE2772 FC HBA</td> <td>32 Gbps</td> <td>qlnativefc</td> <td>9.14.02 (d0d5)</td> </tr> <tr> <td>vmhba65</td> <td>QLogic 2x32Gb QLE2772 FC HBA</td> <td>32 Gbps</td> <td>qlnativefc</td> <td>9.14.02 (d0d5)</td> </tr> </table>	vmhba4	QLogic 2x32Gb QLE2772 FC HBA	32 Gbps	qlnativefc	9.14.02 (d0d5)	vmhba5	QLogic 2x32Gb QLE2772 FC HBA	32 Gbps	qlnativefc	9.14.02 (d0d5)	vmhba64	QLogic 2x32Gb QLE2772 FC HBA	32 Gbps	qlnativefc	9.14.02 (d0d5)	vmhba65	QLogic 2x32Gb QLE2772 FC HBA	32 Gbps	qlnativefc	9.14.02 (d0d5)															
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Power Supply Quantity, Name/Part Number, Wattage, Firmware, and Type (Voltage, AC/DC)	2, Delta-0M63JNA01, 2400W, 00.23.54, AC																																			
Cooling Type (Air Cooling, Closed Loop Cooling, Direct Liquid Cooling, or Other)	Air Cooling																																			
Other Hardware	None																																			
Other Software	None																																			
BIOS Availability Date (MM-DD-YYYY)	11-12-2024																																			
Hardware Availability Date (MM-DD-YYYY)	02-05-2024																																			
Software Availability Date (MM-DD-YYYY)	06-25-2024																																			
Network																																				
Number of Virtual Network Controllers	3																																			
Virtual Network Controllers, Speeds, MTUs, Firmware, Drivers, Vendors, and Models	<table border="1"> <thead> <tr> <th>Device</th> <th>Speed</th> <th>Duplex</th> <th>MTU</th> <th>Firmware</th> <th>Driver</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>vmnic1</td> <td>1 Gbps</td> <td>Full</td> <td>1500</td> <td>bc 1.39 ncsi 1.5.55.0</td> <td>ntg3</td> <td>Broadcom Corporation NetXtreme BCM5720 Gigabit Ethernet</td> </tr> <tr> <td>vmnic4</td> <td>100 Gbps</td> <td>Full</td> <td>9000</td> <td>231.0.154.0 /pkg 23.11.16.22</td> <td>bnxtnet</td> <td>Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet</td> </tr> <tr> <td>vmnic5</td> <td>100 Gbps</td> <td>Full</td> <td>9000</td> <td>231.0.154.0 /pkg 23.11.16.22</td> <td>bnxtnet</td> <td>Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet</td> </tr> </tbody> </table>	Device	Speed	Duplex	MTU	Firmware	Driver	Description	vmnic1	1 Gbps	Full	1500	bc 1.39 ncsi 1.5.55.0	ntg3	Broadcom Corporation NetXtreme BCM5720 Gigabit Ethernet	vmnic4	100 Gbps	Full	9000	231.0.154.0 /pkg 23.11.16.22	bnxtnet	Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet	vmnic5	100 Gbps	Full	9000	231.0.154.0 /pkg 23.11.16.22	bnxtnet	Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet							
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Number of Virtual Switches	2																																			
Virtual Switches, Ports, Port Groups, MTUs, and Uplinks	<table border="1"> <thead> <tr> <th>Switch</th> <th>Ports</th> <th>Configured Ports</th> <th>MTU</th> <th>Uplinks</th> </tr> </thead> <tbody> <tr> <td>vSwitch0</td> <td>9216</td> <td>128</td> <td>9000</td> <td>vmnic4</td> </tr> <tr> <td>vSwitch1</td> <td>9216</td> <td>128</td> <td>9000</td> <td>vmnic5</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Switch</th> <th>Port Group</th> <th>VLAN ID</th> <th>Uplinks</th> </tr> </thead> <tbody> <tr> <td>vSwitch0</td> <td>Management Network</td> <td>0</td> <td>vmnic4</td> </tr> <tr> <td>vSwitch0</td> <td>VMNetwork</td> <td>0</td> <td>vmnic4</td> </tr> <tr> <td>vSwitch0</td> <td>vMotion</td> <td>0</td> <td>vmnic4</td> </tr> <tr> <td>vSwitch1</td> <td>VMNetwork2</td> <td>0</td> <td>vmnic5</td> </tr> </tbody> </table>	Switch	Ports	Configured Ports	MTU	Uplinks	vSwitch0	9216	128	9000	vmnic4	vSwitch1	9216	128	9000	vmnic5	Switch	Port Group	VLAN ID	Uplinks	vSwitch0	Management Network	0	vmnic4	vSwitch0	VMNetwork	0	vmnic4	vSwitch0	vMotion	0	vmnic4	vSwitch1	VMNetwork2	0	vmnic5
Switch	Ports	Configured Ports	MTU	Uplinks																																
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vSwitch0	vMotion	0	vmnic4																																	
vSwitch1	VMNetwork2	0	vmnic5																																	
VMkernel Network Adapters, Port Groups, MTUs, TCP/IP Stacks, and Services	<table border="1"> <thead> <tr> <th>Device</th> <th>Port Group/DVPort</th> <th>MTU</th> <th>TCP/IP Stack</th> <th>Services</th> </tr> </thead> <tbody> <tr> <td>vmk0</td> <td>Management Network</td> <td>9000</td> <td>Default</td> <td>Management</td> </tr> <tr> <td>vmk1</td> <td>vMotion</td> <td>9000</td> <td>Default</td> <td>vMotion</td> </tr> </tbody> </table>	Device	Port Group/DVPort	MTU	TCP/IP Stack	Services	vmk0	Management Network	9000	Default	Management	vmk1	vMotion	9000	Default	vMotion																				
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vmk0	Management Network	9000	Default	Management																																
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Physical Switch Vendors, Models, and Speeds	None									
Primary Storage										
Storage Category	FC SAN									
Datastores	Datastores	Type	Size	Storage Device						
	OSDATA-67842ad7-bfda2a39-e706-00620b21f890	VMFSOS	128.6 GB	Local NVMe Disk						
	Tiles_DS	VMFS-6	16.5 TB	EMC Fibre Channel Disk						
	datastore1	VMFS-6	6.3 TB	Local NVMe Disk						
	deploy	VMFS-6	1.1 TB	EMC Fibre Channel Disk						
	svmotion	VMFS-6	1.1 TB	EMC Fibre Channel Disk						
	xvmotion	VMFS-6	1.1 TB	EMC Fibre Channel Disk						
Number of Storage Devices	6									
Storage Device Names, Sizes, Types, Vendors, Models, and Revisions	Storage Device	Size	Type	Vendor	Model	Revision	Path Selection Policy	Path Selection Policy Config	# Working Paths	
	EMC Fibre Channel Disk	1.1 TB	Direct-Access	EMC	SYMMETRIX	5977	VMW_PSP_RR	policy=iops,iops=1,bytes=10485760,useANO=0	16	
	EMC Fibre Channel Disk	1.1 TB	Direct-Access	EMC	SYMMETRIX	5977	VMW_PSP_RR	policy=iops,iops=1,bytes=10485760,useANO=0	16	
	EMC Fibre Channel Disk	1.1 TB	Direct-Access	EMC	SYMMETRIX	5977	VMW_PSP_RR	policy=iops,iops=1,bytes=10485760,useANO=0	16	
	Local NVMe Disk (Boot Device)	6.4 TB	Direct-Access	NVMe	Dell Ent NVMe PM1735a MU 6.4TB	1.1.1	FIXED	preferred=none	1	
	Local NVMe Disk	6.4 TB	Direct-Access	NVMe	Dell Ent NVMe PM1735a MU 6.4TB	1.1.1	FIXED	preferred=none	1	
	EMC Fibre Channel Disk	16.5 TB	Direct-Access	EMC	SYMMETRIX	5977	VMW_PSP_RR	policy=iops,iops=1,bytes=10485760,useANO=0	16	
How Datastores Map to Storage Devices	See Detailed Storage Notes									
VMware vSAN Configuration (if used)	None									
RAID Configuration (if used)	None									
Server Management										
VMware vCenter Server Number of vCPUs	8									
VMware vCenter Server Virtual Memory (in GB)	30									
Clients										
Total Client VMs (including Prime Client)	4									
Number of Client Hosts (all subsequent fields in this	2									

section are per Client Host)																																																								
System Model(s)	<ul style="list-style-type: none"> Client Host 1: Dell PowerEdge R7625 Client Host 2: Dell PowerEdge R7625 																																																							
Processor Vendor(s) and Model(s)	<ul style="list-style-type: none"> Client Host 1: AMD EPYC 9754 Client Host 2: AMD EPYC 9754 																																																							
Processor Speed(s) (GHz)	<ul style="list-style-type: none"> Client Host 1: 2.25 GHz Client Host 2: 2.25 GHz 																																																							
Total Sockets/Total Cores/Total Threads	<table border="1"> <thead> <tr> <th>Client Host</th> <th>Sockets</th> <th>Cores</th> <th>Threads</th> </tr> </thead> <tbody> <tr> <td>Client Host 1</td> <td>2</td> <td>256</td> <td>512</td> </tr> <tr> <td>Client Host 2</td> <td>2</td> <td>256</td> <td>512</td> </tr> <tr> <td>Total</td> <td>4</td> <td>512</td> <td>1024</td> </tr> </tbody> </table>	Client Host	Sockets	Cores	Threads	Client Host 1	2	256	512	Client Host 2	2	256	512	Total	4	512	1024																																							
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NUMA Nodes	<ul style="list-style-type: none"> Client Host 1: 2 Client Host 2: 2 																																																							
Memory Size (in GB) per Client Host	<table border="1"> <thead> <tr> <th>Client Host</th> <th>BIOS</th> <th>ESXi</th> </tr> </thead> <tbody> <tr> <td>Client Host 1</td> <td>6144 GB</td> <td>6144 GB</td> </tr> <tr> <td>Client Host 2</td> <td>6144 GB</td> <td>6144 GB</td> </tr> </tbody> </table>	Client Host	BIOS	ESXi	Client Host 1	6144 GB	6144 GB	Client Host 2	6144 GB	6144 GB																																														
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Virtual Network Controllers, Speeds, MTUs, Firmware, Drivers, Vendors, and Models	<table border="1"> <thead> <tr> <th>Client Host</th> <th>Device</th> <th>Speed</th> <th>Duplex</th> <th>MTU</th> <th>Firmware</th> <th>Driver</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Client Host 1</td> <td>vmnic4</td> <td>100 Gbps</td> <td>Full</td> <td>9000</td> <td>229.2.62.0 /pkg 22.92.07.50</td> <td>bnxtnet</td> <td>Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet</td> </tr> <tr> <td>vmnic5</td> <td>100 Gbps</td> <td>Full</td> <td>9000</td> <td>229.2.62.0 /pkg 22.92.07.50</td> <td>bnxtnet</td> <td>Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet</td> </tr> <tr> <td rowspan="2">Client Host 2</td> <td>vmnic4</td> <td>100 Gbps</td> <td>Full</td> <td>9000</td> <td>229.2.62.0 /pkg 22.92.07.50</td> <td>bnxtnet</td> <td>Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet</td> </tr> <tr> <td>vmnic5</td> <td>100 Gbps</td> <td>Full</td> <td>9000</td> <td>229.2.62.0 /pkg 22.92.07.50</td> <td>bnxtnet</td> <td>Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet</td> </tr> </tbody> </table>	Client Host	Device	Speed	Duplex	MTU	Firmware	Driver	Description	Client Host 1	vmnic4	100 Gbps	Full	9000	229.2.62.0 /pkg 22.92.07.50	bnxtnet	Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet	vmnic5	100 Gbps	Full	9000	229.2.62.0 /pkg 22.92.07.50	bnxtnet	Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet	Client Host 2	vmnic4	100 Gbps	Full	9000	229.2.62.0 /pkg 22.92.07.50	bnxtnet	Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet	vmnic5	100 Gbps	Full	9000	229.2.62.0 /pkg 22.92.07.50	bnxtnet	Broadcom NetXtreme-E P2100D BCM57508 2x100G QSFP PCIE Ethernet																	
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	vSwitch0	VMNetwork	0	vmnic4																																																				
	vSwitch1	VMNetwork2	0	vmnic5																																																				
Client Host 2	vSwitch0	Management Network	0	vmnic4																																																				
	vSwitch0	VMNetwork	0	vmnic4																																																				

	vSwitch1	VMNetwork2	0	vmnic5		
VMkernel Network Adapters, Port Groups, MTUs, TCP/IP Stacks, and Services	Client Host	Device	Port Group/DVPort	MTU	TCP/IP Stack	Services
	Client Host 1	vmk0	Management Network	9000	Default	Management
	Client Host 2	vmk0	Management Network	9000	Default	Management
Client Storage Notes	See Client Notes Section					
Other Hardware	None					
Other Software	VMware ESXi 8.0 Update 3, Build 24022510					

Notes for Workload

Template deployed with disk type: Thick Eager

Virtualization Software Notes

- vSphere DRS Enabled
- vSphere DRS Automation Level set to Fully Automated
- vSphere DRS Migration Threshold set to 2
- Logical CPU layout changed for all multi-CPU VMs to 1 socket with multiple cores (default single core per socket) except Prime Client, Template and AuctionK* VMs
- Logging was disabled for all VMs except Prime Client (default enabled)
- All DS35DB VMs had CPU shares set to High (default Normal)
- All DS35DB VMs had Memory shares set to High (default Normal)
- All memory reserved (LockedToMax) for all DS35DB VMs
- All Standby VMs had CPU shares set to Low (default Normal)
- sched.mem.lpage.enable1GPage set to TRUE for all DS35DB VMs (default FALSE)
- CD/DVD device was removed from all VMs except Prime Client (default present)

SUT Host ESXi Advanced Settings:

Advanced Setting	Host 1	Host 2	Default
Cpu.CreditAgePeriod	1000	1000	3000
Cpu.HTWholeCoreThreshold	0	0	800
DataMover.HardwareAcceleratedInit	0	0	1
DataMover.HardwareAcceleratedMove	0	0	1
Disk.IdleCredit	64	64	32
Disk.ReqCallThreshold	1	1	8
Mem.CtlMaxPercent	0	0	65
Mem.ShareScanGHz	0	0	4
Numa.LTermFairnessInterval	0	0	5
Numa.LocalityWeightActionAffinity	0	0	130
Numa.MigImbalanceThreshold	57	57	10
Numa.PageMigEnable	0	0	1
Numa.RebalancePeriod	60000	60000	2000

Numa.SwapLoadEnable	0	0	1
Numa.SwapLocalityEnable	0	0	1
Power.CpuPolicy	Performance	Performance	Balanced
UserVars.HostClientCEIPOptIn	2	2	0
UserVars.SuppressShellWarning	1	1	0

SUT Host ESXi Module Options:

Module	Host 1	Host 2	Default
tcpip4	ipv6=1	ipv6=1	ipv6=1

Server Notes

Server BIOS Settings:

- Sub NUMA Cluster :2-way (default Disabled)
- Optimizer mode : Enabled (default Auto)
- System Profile Settings : Performance (default Performance per Watt(OD))
- Thermal Profile : Max Performance (default Default Thermal Profile Settings)

Networking Notes

SUTs:

- vSwitch0 : Management Network (vmk0),VMNetwork and vMotion (vmk1) using vmnic4
 - vSwitch1 : VMNetwork2 using vmnic5
- All vSwitches, vmk0, vmk1 and vmnic4-vmnic5 set to MTU 9000

Client Hosts:

- vSwitch0 : Management Network (vmk0) and VMNetwork using vmnic4
 - vSwitch1 : VMNetwork2 using vmnic 5
- All vSwitches, vmk0 and vmnic4-vmnic5 set to MTU 9000

Storage Notes

- Primary Storage : Dell PowerMax 8000, Dell PowerMax OS 5978.479.479
- Single default Storage Resource Pool (SRP) with 2xDisk Groups(factory pre-configured)
 - Disk Group 1 : 9x750 GB Intel SSDs configured in RAID 5 (7+1) with one spare drive (Usable capacity 4880.9 GiB)
 - Disk Group 2 : 25x7.68 TB Samsung NVMe drives configured in RAID 5 (7+1) with one spare drive (Usable capacity 150217.6 GiB)

Server Management Notes

VMware vCenter Server 8.0 Update 3, Build 24022515 was hosted as a VM on ClientHost1

Operating System Notes

SUT Host ESXi Image Profile: DEL-ESXi_803.24022510-A01

Software Notes

None

Client Notes

- vSphere DRS Disabled

Client Host BIOS Settings:

- L2 Prefetcher :Disabled (default Enabled)
- L2 Up/Down Prefetcher : Disabled (default Enabled)
- System Profile Settings : Performance (default Performance per Watt(OD))
- Thermal Profile : Max Performance (default Default Thermal Profile Settings)

Client Host ESXi Advanced Settings:

Advanced Setting	Host 1	Host 2	Default
Cpu.CreditAgePeriod	1000	1000	3000
Cpu.HTWholeCoreThreshold	0	0	800
DataMover.HardwareAcceleratedInit	0	0	1
DataMover.HardwareAcceleratedMove	0	0	1
Disk.IdleCredit	64	64	32
Disk.ReqCallThreshold	1	1	8
Mem.CtlMaxPercent	0	0	65
Mem.ShareScanGHz	0	0	4
Numa.LTermFairnessInterval	0	0	5
Numa.LocalityWeightActionAffinity	0	0	130
Numa.MigImbalanceThreshold	57	57	10
Numa.PageMigEnable	0	0	1
Numa.RebalancePeriod	60000	60000	2000
Numa.SwapLoadEnable	0	0	1
Numa.SwapLocalityEnable	0	0	1
Power.CpuPolicy	Performance	Performance	Balanced
UserVars.HostClientCEIPOptIn	2	2	0
UserVars.SuppressShellWarning	1	1	0

Client Host ESXi Module Options:

Module	Host 1	Host 2	Default
tcpip4	ipv6=1	ipv6=1	ipv6=1

Client Host ESXi Image Profile: DEL-ESXi_803.24022510-A01

Client Host VMs:

- Client Host 1: Client0, Prime Client, VMware vCenter Server
- Client Host 2: Client1, Client2

NoSQLBenchB0	8	8	8192	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
NoSQLBenchB1	8	8	8192	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
NoSQLBenchB2	8	8	8192	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
VM	vCPUs	Cores Per Socket	Memory (MB)	Sync Time	Logging	CD/DVD	CPU Res	CPU Limit	CPU Shares	Mem Res	Mem Limit	Mem Shares	Mem Pin	Mem 1G Page	Disk Shares	Datastore	Port Group	vHW Version	Tools Version
NoSQLBenchC0	8	8	8192	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
NoSQLBenchC1	8	8	8192	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
NoSQLBenchC2	8	8	8192	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
VM	vCPUs	Cores Per Socket	Memory (MB)	Sync Time	Logging	CD/DVD	CPU Res	CPU Limit	CPU Shares	Mem Res	Mem Limit	Mem Shares	Mem Pin	Mem 1G Page	Disk Shares	Datastore	Port Group	vHW Version	Tools Version
SocialNetwork0	36	36	16384	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
SocialNetwork1	36	36	16384	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
SocialNetwork2	36	36	16384	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
VM	vCPUs	Cores Per Socket	Memory (MB)	Sync Time	Logging	CD/DVD	CPU Res	CPU Limit	CPU Shares	Mem Res	Mem Limit	Mem Shares	Mem Pin	Mem 1G Page	Disk Shares	Datastore	Port Group	vHW Version	Tools Version
Standby0	1	1	2048	TRUE	FALSE	Removed	0	Unlimited	low	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
Standby1	1	1	2048	TRUE	FALSE	Removed	0	Unlimited	low	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
Standby2	1	1	2048	TRUE	FALSE	Removed	0	Unlimited	low	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
VM	vCPUs	Cores Per Socket	Memory (MB)	Sync Time	Logging	CD/DVD	CPU Res	CPU Limit	CPU Shares	Mem Res	Mem Limit	Mem Shares	Mem Pin	Mem 1G Page	Disk Shares	Datastore	Port Group	vHW Version	Tools Version
VMmark-4.0.2-209	4	1	32768	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325

Client Host Virtual Machines

VM	vCPUs	Cores Per Socket	Memory (MB)	Sync Time	Logging	CD/DVD	CPU Res	CPU Limit	CPU Shares	Mem Res	Mem Limit	Mem Shares	Mem Pin	Mem 1G Page	Disk Shares	Datastore	Port Group	vHW Version	Tools Version
Client0	64	64	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Client1	64	64	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Client2	64	64	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Prime Client	4	1	32768	TRUE	TRUE	Present	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork, VMNetwork2	17	12325
VMware vCenter Server	8	1	30720	FALSE	TRUE	Present	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork	10	12389

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