

VMmark[®] 4.0.2 Disclosure

Server Vendor & Model: Dell PowerEdge R7625
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 =
3.99 @ 5 Tiles**

Number of Hosts: 2	Uniform Hosts: yes	Total sockets/cores/threads in test: 4/512/1024
Tested By: Dell Technologies	Test Date: 12-09-2024	SUT Availability Date: 10-15-2024
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	14185.01	9266.67	2600.12	1789.22	1207.15	57454.06	57455.89	57454.23	54.12	1.00	
p1	14137.80	9308.72	2552.45	1882.47	1372.97	56074.51	56075.70	56074.73	53.26	1.00	
p2	14135.34	9304.70	2551.22	1750.25	1181.85	54944.80	54945.49	54944.80	52.52	1.00	
TILE_0_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	0.90	0.83	0.79	1.02	1.02	1.02	0.75	1.00	0.92
p1	1.01	1.01	0.88	0.88	0.90	0.99	0.99	0.99	0.74	1.00	0.93
p2	1.01	1.01	0.88	0.81	0.77	0.97	0.97	0.97	0.73	1.00	0.90
TILE_0_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.95 0.09	0.63 0.01	658.37	767.34	901.45	0.59	0.59	0.59			
p1	1.10 0.13	0.64 0.01	696.39	795.74	901.42	0.64	0.64	0.64			
p2	1.30 0.17	0.66 0.02	700.37	821.53	947.85	0.62	0.62	0.62			
TILE_1_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14141.41	9270.75	2782.55	1987.97	1458.72	56322.63	56380.89	56382.08	65.52	1.00	
p1	14136.40	9249.27	2812.55	2022.95	1543.72	54732.55	54732.25	54732.84	62.72	1.00	
p2	14101.10	9262.66	2890.45	2161.55	1550.75	52994.50	52994.66	52995.12	64.90	1.00	
TILE_1_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	0.96	0.92	0.95	1.00	1.00	1.00	0.91	1.00	0.97
p1	1.01	1.01	0.97	0.94	1.01	0.97	0.97	0.97	0.87	1.00	0.97
p2	1.01	1.01	1.00	1.01	1.01	0.94	0.94	0.94	0.90	1.00	0.97
TILE_1_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.99 0.04	0.72 0.01	505.07	594.00	599.56	0.61	0.61	0.61			
p1	0.97 0.06	0.74 0.01	483.89	560.03	573.93	0.65	0.65	0.65			
p2	0.79 0.07	0.72 0.02	427.56	439.67	479.55	0.67	0.67	0.67			
TILE_2_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14183.45	9311.97	2577.90	1912.75	1338.78	52824.00	52825.14	52702.51	52.10	1.00	
p1	14153.08	9254.02	2586.60	1768.15	1266.78	52212.25	52212.37	52211.84	51.65	1.00	

p2	14128.58	9256.64	2525.75	1863.25	1302.33	51204.87	51205.14	51204.67	51.19	1.00	
TILE_2_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	0.89	0.89	0.88	0.93	0.93	0.93	0.72	1.00	0.91
p1	1.01	1.01	0.89	0.82	0.83	0.92	0.92	0.92	0.72	1.00	0.89
p2	1.01	1.01	0.87	0.87	0.85	0.91	0.91	0.91	0.71	1.00	0.89
TILE_2_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.80 0.07	0.66 0.02	676.04	762.34	868.61	0.62	0.63	0.62			
p1	0.97 0.06	0.70 0.01	664.98	777.81	887.84	0.65	0.65	0.65			
p2	0.96 0.06	0.70 0.01	714.13	814.60	922.19	0.68	0.69	0.68			
TILE_3_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14153.53	9258.69	2722.10	1994.45	1528.00	57771.85	57771.34	57771.94	71.98	1.00	
p1	14155.16	9250.43	2800.80	1945.10	1375.83	55465.81	55465.89	55465.76	71.88	1.00	
p2	14141.05	9249.32	2890.78	2233.30	1695.67	54502.61	54502.65	54502.55	71.44	1.00	
TILE_3_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	0.94	0.93	1.00	1.02	1.02	1.02	1.00	1.00	0.99
p1	1.01	1.01	0.97	0.90	0.90	0.98	0.98	0.98	1.00	1.00	0.97
p2	1.01	1.01	1.00	1.04	1.11	0.96	0.96	0.96	0.99	1.00	1.00
TILE_3_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.66 0.03	0.57 0.00	551.30	655.99	679.46	0.61	0.61	0.61			
p1	0.69 0.05	0.58 0.00	499.54	577.63	623.72	0.63	0.63	0.63			
p2	0.69 0.06	0.59 0.01	427.01	438.22	474.40	0.62	0.61	0.62			
TILE_4_Scores	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	
p0	14185.66	9270.93	2575.07	1823.92	1319.80	60371.51	60372.13	60370.61	62.93	1.00	
p1	14147.69	9260.96	2567.40	1831.42	1262.17	60032.00	60032.47	60031.59	59.70	1.00	
p2	14116.48	9347.70	2536.47	1782.15	1283.38	59514.19	59514.50	59513.93	46.55	1.00	
TILE_4_Ratios	WVAuctionVM	WVAuctionK8S	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC	SocialNetwork	Standby	Geo.Mean
p0	1.01	1.01	0.89	0.85	0.86	1.07	1.07	1.07	0.87	1.00	0.96
p1	1.01	1.01	0.89	0.85	0.82	1.06	1.06	1.06	0.83	1.00	0.95
p2	1.01	1.02	0.87	0.83	0.84	1.05	1.05	1.05	0.65	1.00	0.92
TILE_4_QoS	WVAuctionVM%	WVAuctionK8S%	DVDStoreA	DVDStoreB	DVDStoreC	NoSQLBenchA	NoSQLBenchB	NoSQLBenchC			
p0	0.98 0.04	0.65 0.00	674.17	787.99	890.97	0.54	0.54	0.54			
p1	1.10 0.04	0.67 0.01	687.15	775.63	891.21	0.56	0.56	0.56			
p2	1.35 0.07	0.69 0.01	715.58	838.77	960.12	0.55	0.55	0.55			
p0_score:	4.76										
p1_score:	4.70										
p2_score:	4.68										
Infrastructure_Operations_Scores:					vMotion		SVMotion		XVMotion		Deploy
Completed_Ops_PerHour					29.00		16.00		15.00		16.00
Avg_Seconds_To_Complete					1.12		22.09		18.23		179.91
Failures					0.00		0.00		0.00		0.00

Ratio	0.98	1.23	1.15	1.10
Number_Of_Threads	1	1	1	1
Summary		Run_Is_Compliant	Median_Phase(p1)	
Unreviewed_VMmark4_Applications_Score		4.70		
Unreviewed_VMmark4_Infrastructure_Score		1.11		
Unreviewed_VMmark4_Score		3.99 @ 5 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 R7625																																																														
Processor Vendor and Model	AMD EPYC 9754																																																														
Processor Speed (GHz) / Turbo Boost Speed (GHz)	2.25 GHz / 3.1 GHz																																																														
Total Sockets/Total Cores/Total Threads	2 Sockets / 256 Cores / 512 Threads																																																														
NUMA Nodes	2																																																														
BIOS Version	1.9.5																																																														
Memory Size (in GB, Number of DIMMs)	Physical Memory (BIOS): 3072 GB Physical Memory (ESXi): 3072 GB Number of DIMMs: 24																																																														
Memory Type and Speed	<table border="1"> <thead> <tr> <th>Location</th> <th>Size</th> <th>Speed</th> <th>Max Speed</th> <th>Rank</th> <th>Type</th> <th>Detail</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> <tr> <td>A2</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> <tr> <td>A3</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> <tr> <td>A4</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> <tr> <td>A5</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> <tr> <td>A6</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> <tr> <td>A7</td> <td>128 GB</td> <td>4800 MT/s</td> <td>4800 MT/s</td> <td>4</td> <td>DDR5</td> <td>Synchronous, Registered</td> </tr> </tbody> </table>							Location	Size	Speed	Max Speed	Rank	Type	Detail	A1	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered	A2	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered	A3	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered	A4	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered	A5	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered	A6	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered	A7	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
Location	Size	Speed	Max Speed	Rank	Type	Detail																																																									
A1	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered																																																									
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A7	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered																																																									

A8	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
A9	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
A10	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
A11	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
A12	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B1	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B2	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B3	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B4	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B5	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B6	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B7	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B8	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B9	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B10	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B11	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered
B12	128 GB	4800 MT/s	4800 MT/s	4	DDR5	Synchronous, Registered

Number of SAS Devices

1

SAS Device Vendors and Models

Device	Model	Driver	Driver Version	Firmware
vmhba2	CN03KWNFCP00394001HA02	bcm_mpi3	8.8.1.0.0.0	8.8.0.225-00018-00011

Number of Virtual Host Bus Adapters

4

Virtual Host Bus Adapter Vendors and Models

HBA	Model	Speed	Driver	Firmware
vmhba4	Emulex LPe36002-M64-D 2-Port 64Gb Fibre Channel Adapter	32 Gbps	lpfc	14.4.322.9
vmhba5	Emulex LPe36002-M64-D 2-Port 64Gb Fibre Channel Adapter	32 Gbps	lpfc	14.4.322.9
vmhba64	Emulex LPe36002-M64-D 2-Port 64Gb Fibre Channel Adapter	32 Gbps	lpfc	14.4.322.9
vmhba65	Emulex LPe36002-M64-D 2-Port 64Gb Fibre Channel Adapter	32 Gbps	lpfc	14.4.322.9

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)

10-15-2024

Hardware Availability Date (MM-DD-YYYY)

05-22-2023

Software Availability Date (MM-DD-YYYY)

06-25-2024

Network

Number of Virtual Network Controllers	2																																							
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>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>					Device	Speed	Duplex	MTU	Firmware	Driver	Description	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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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>VMNetwork2</td> <td>0</td> <td>vmnic4</td> </tr> <tr> <td>vSwitch1</td> <td>VMNetwork</td> <td>0</td> <td>vmnic5</td> </tr> <tr> <td>vSwitch1</td> <td>vMotion</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	VMNetwork2	0	vmnic4	vSwitch1	VMNetwork	0	vmnic5	vSwitch1	vMotion	0	vmnic5
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	VMNetwork2	0	vmnic4																																					
vSwitch1	VMNetwork	0	vmnic5																																					
vSwitch1	vMotion	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																				
Device	Port Group/DVPort	MTU	TCP/IP Stack	Services																																				
vmk0	Management Network	9000	Default	Management																																				
vmk1	vMotion	9000	Default	vMotion																																				
Physical Switch Vendors, Models, and Speeds	Dell PowerSwitch Z9264F-ON 100Gb																																							

Primary Storage

Storage Category	FC SAN																																																														
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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	4																																												
VMware vCenter Server Virtual Memory (in GB)	21																																												
Clients																																													
Total Client VMs (including Prime Client)	6																																												
Number of Client Hosts (all subsequent fields in this section are per Client Host)	2																																												
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 																																												
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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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Virtual Switches, Ports, Port Groups, MTUs, and Uplinks	<table border="1"> <thead> <tr> <th>Client Host</th> <th>Switch</th> <th>Ports</th> <th>Configured Ports</th> <th>MTU</th> <th>Uplinks</th> </tr> </thead> <tbody> <tr> <td>Client Host 1</td> <td>vSwitch0</td> <td>9216</td> <td>128</td> <td>9000</td> <td>vmnic4</td> </tr> </tbody> </table>							Client Host	Switch	Ports	Configured Ports	MTU	Uplinks	Client Host 1	vSwitch0	9216	128	9000	vmnic4																										
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	vSwitch1	9216	128	9000	vmnic5
Client Host 2	vSwitch0	9216	128	9000	vmnic4
	vSwitch1	9216	128	9000	vmnic5

Client Host	Switch	Port Group	VLAN ID	Uplinks
Client Host 1	vSwitch0	Management Network	0	vmnic4
	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, Client 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:

- 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)

Networking Notes

SUTs:

- vSwitch0 : Management Network (vmk0) and VMNetwork2 using vmnic4
 - vSwitch1 : VMNetwork and vMotion (vmk1) 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

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, Client4, Prime Client, VMware vCenter Server

SocialNetwork3	36	36	16384	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
SocialNetwork4	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
Standby3	1	1	2048	TRUE	FALSE	Removed	0	Unlimited	low	0	Unlimited	normal	FALSE	FALSE	normal	Tiles_DS	VMNetwork2	17	12325
Standby4	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	1	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Client1	64	1	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Client2	64	1	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Client3	64	1	98304	TRUE	FALSE	Removed	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork2	17	12325
Client4	64	1	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	4	1	21504	FALSE	TRUE	Present	0	Unlimited	normal	0	Unlimited	normal	FALSE	FALSE	normal	Client_DS	VMNetwork	10	12389

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