

|                                                                                                                                                                                                                                    |  |                                                        |                       |  |                                                     |                                          |                                                |                                                              |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------|-----------------------|--|-----------------------------------------------------|------------------------------------------|------------------------------------------------|--------------------------------------------------------------|--|--|--|
| VMmark <sup>®</sup> 4.0.3 Disclosure                                                                                                                                                                                               |  |                                                        |                       |  |                                                     |                                          |                                                |                                                              |  |  |  |
| Server Vendor & Model: Lenovo ThinkSystem SR655 V3<br>Storage Vendor & Model: 5 x Lenovo ThinkSystem SR665<br>Hypervisor: VMware ESX 9.0.1.0, Build 24957456<br>Server Management Software: VMware vCenter 9.0.1.0, Build 24957454 |  |                                                        |                       |  |                                                     | VMmark 4.0.3 Score =<br>3.31 @ 3.6 Tiles |                                                |                                                              |  |  |  |
| Number of Hosts: 2                                                                                                                                                                                                                 |  |                                                        | Uniform Hosts: yes    |  |                                                     |                                          | Total sockets/cores/threads in test: 2/320/640 |                                                              |  |  |  |
| Tested By: Lenovo                                                                                                                                                                                                                  |  |                                                        | Test Date: 11-17-2025 |  |                                                     |                                          | SUT Availability Date: 09-29-2025              |                                                              |  |  |  |
| Performance Section<br><a href="#">Performance</a>                                                                                                                                                                                 |  | Configuration Section<br><a href="#">Configuration</a> |                       |  | Notes Section<br><a href="#">Notes for Workload</a> |                                          |                                                | Virtual Machines Section<br><a href="#">Virtual Machines</a> |  |  |  |

Performance

|               |              |               |           |           |           |             |             |             |               |         |          |
|---------------|--------------|---------------|-----------|-----------|-----------|-------------|-------------|-------------|---------------|---------|----------|
| TILE_0_Scores | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC | SocialNetwork | Standby |          |
| p0            | 14145.88     | 9251.83       | 2947.68   | 2169.50   | 1596.62   | 67763.52    | 67764.31    | 67763.58    | 34.03         | 1.00    |          |
| p1            | 14158.54     | 9282.60       | 2910.10   | 2154.32   | 1522.97   | 65073.16    | 65073.60    | 65073.95    | 32.20         | 1.00    |          |
| p2            | 14146.11     | 9245.29       | 2917.80   | 2137.70   | 1596.22   | 62700.42    | 62700.70    | 62700.36    | 31.30         | 1.00    |          |
| TILE_0_Ratios | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC | SocialNetwork | Standby | Geo.Mean |
| p0            | 1.01         | 1.01          | 1.02      | 1.01      | 1.04      | 1.20        | 1.20        | 1.20        | 0.47          | 1.00    | 0.99     |
| p1            | 1.01         | 1.01          | 1.00      | 1.00      | 1.00      | 1.15        | 1.15        | 1.15        | 0.45          | 1.00    | 0.96     |
| p2            | 1.01         | 1.00          | 1.01      | 0.99      | 1.04      | 1.11        | 1.11        | 1.11        | 0.43          | 1.00    | 0.95     |
| TILE_0_QoS    | WVAuctionVM% | WVAuctionK8S% | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC |               |         |          |
| p0            | 0.38   0.00  | 0.76   0.02   | 401.12    | 432.64    | 501.06    | 0.50        | 0.50        | 0.50        |               |         |          |
| p1            | 0.43   0.01  | 0.82   0.01   | 423.82    | 446.17    | 508.50    | 0.56        | 0.56        | 0.56        |               |         |          |
| p2            | 0.44   0.01  | 0.88   0.01   | 420.53    | 463.29    | 511.67    | 0.56        | 0.56        | 0.56        |               |         |          |
| TILE_1_Scores | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC | SocialNetwork | Standby |          |
| p0            | 14169.32     | 9268.43       | 3073.60   | 2284.57   | 1692.88   | 75397.75    | 75426.47    | 75427.90    | 46.17         | 1.00    |          |
| p1            | 14167.97     | 9282.13       | 3041.05   | 2255.30   | 1601.90   | 72789.92    | 72787.70    | 72788.95    | 45.97         | 1.00    |          |
| p2            | 14146.17     | 9256.36       | 3051.60   | 2245.93   | 1661.17   | 70919.85    | 70919.10    | 70919.47    | 45.37         | 1.00    |          |
| TILE_1_Ratios | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC | SocialNetwork | Standby | Geo.Mean |
| p0            | 1.01         | 1.01          | 1.06      | 1.06      | 1.11      | 1.33        | 1.33        | 1.34        | 0.64          | 1.00    | 1.08     |
| p1            | 1.01         | 1.01          | 1.05      | 1.05      | 1.05      | 1.29        | 1.29        | 1.29        | 0.64          | 1.00    | 1.05     |
| p2            | 1.01         | 1.01          | 1.05      | 1.04      | 1.09      | 1.26        | 1.26        | 1.26        | 0.63          | 1.00    | 1.05     |
| TILE_1_QoS    | WVAuctionVM% | WVAuctionK8S% | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC |               |         |          |
| p0            | 0.24   0.00  | 0.54   0.01   | 326.13    | 344.71    | 391.32    | 0.45        | 0.45        | 0.44        |               |         |          |
| p1            | 0.26   0.00  | 0.57   0.01   | 344.73    | 365.01    | 420.60    | 0.48        | 0.48        | 0.47        |               |         |          |
| p2            | 0.28   0.00  | 0.60   0.00   | 340.09    | 369.43    | 432.05    | 0.49        | 0.49        | 0.49        |               |         |          |
| TILE_2_Scores | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA | NoSQLBenchB | NoSQLBenchC | SocialNetwork | Standby |          |
| p0            | 14170.57     | 9269.80       | 2918.30   | 2145.97   | 1592.65   | 66927.55    | 66907.80    | 66928.33    | 33.38         | 1.00    |          |
| p1            | 14168.03     | 9293.09       | 2895.82   | 2156.75   | 1542.85   | 64900.76    | 64900.79    | 64901.63    | 31.96         | 1.00    |          |

|                                         |              |               |           |           |           |                  |             |             |                  |         |          |  |  |  |
|-----------------------------------------|--------------|---------------|-----------|-----------|-----------|------------------|-------------|-------------|------------------|---------|----------|--|--|--|
| p2                                      | 14159.13     | 9337.75       | 2907.97   | 2137.28   | 1599.15   | 63115.08         | 63115.07    | 63115.65    | 31.50            | 1.00    |          |  |  |  |
| TILE_2_Ratios                           | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA      | NoSQLBenchB | NoSQLBenchC | SocialNetwork    | Standby | Geo.Mean |  |  |  |
| p0                                      | 1.01         | 1.01          | 1.01      | 1.00      | 1.04      | 1.18             | 1.18        | 1.18        | 0.46             | 1.00    | 0.98     |  |  |  |
| p1                                      | 1.01         | 1.01          | 1.00      | 1.00      | 1.01      | 1.15             | 1.15        | 1.15        | 0.44             | 1.00    | 0.96     |  |  |  |
| p2                                      | 1.01         | 1.01          | 1.00      | 0.99      | 1.05      | 1.12             | 1.12        | 1.12        | 0.44             | 1.00    | 0.95     |  |  |  |
| TILE_2_QoS                              | WVAuctionVM% | WVAuctionK8S% | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA      | NoSQLBenchB | NoSQLBenchC |                  |         |          |  |  |  |
| p0                                      | 0.41   0.02  | 0.72   0.01   | 420.16    | 458.64    | 510.83    | 0.50             | 0.50        | 0.50        |                  |         |          |  |  |  |
| p1                                      | 0.47   0.03  | 0.80   0.01   | 431.60    | 446.95    | 484.98    | 0.54             | 0.54        | 0.54        |                  |         |          |  |  |  |
| p2                                      | 0.52   0.05  | 0.82   0.01   | 424.82    | 461.32    | 497.93    | 0.54             | 0.54        | 0.54        |                  |         |          |  |  |  |
| TILE_3_Scores                           | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA      | NoSQLBenchB | NoSQLBenchC | SocialNetwork    | Standby |          |  |  |  |
| p0                                      | N/A          | N/A           | 3095.95   | 2271.15   | 1697.97   | 89259.02         | 89259.70    | 89259.88    | 46.40            | N/A     |          |  |  |  |
| p1                                      | N/A          | N/A           | 3040.03   | 2251.88   | 1617.12   | 83938.02         | 83937.86    | 83938.04    | 46.00            | N/A     |          |  |  |  |
| p2                                      | N/A          | N/A           | 3057.93   | 2231.88   | 1664.12   | 80740.69         | 80740.59    | 80740.79    | 45.42            | N/A     |          |  |  |  |
| TILE_3_Ratios                           | WVAuctionVM  | WVAuctionK8S  | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA      | NoSQLBenchB | NoSQLBenchC | SocialNetwork    | Standby | Geo.Mean |  |  |  |
| p0                                      | N/A          | N/A           | 1.07      | 1.06      | 1.11      | 1.58             | 1.58        | 1.58        | 0.64             | N/A     | 0.92     |  |  |  |
| p1                                      | N/A          | N/A           | 1.05      | 1.05      | 1.06      | 1.49             | 1.49        | 1.49        | 0.64             | N/A     | 0.88     |  |  |  |
| p2                                      | N/A          | N/A           | 1.05      | 1.04      | 1.09      | 1.43             | 1.43        | 1.43        | 0.63             | N/A     | 0.87     |  |  |  |
| TILE_3_QoS                              | WVAuctionVM% | WVAuctionK8S% | DVDStoreA | DVDStoreB | DVDStoreC | NoSQLBenchA      | NoSQLBenchB | NoSQLBenchC |                  |         |          |  |  |  |
| p0                                      | N/A          | N/A           | 313.25    | 352.04    | 396.94    | 0.39             | 0.39        | 0.39        |                  |         |          |  |  |  |
| p1                                      | N/A          | N/A           | 344.81    | 367.39    | 402.30    | 0.42             | 0.42        | 0.42        |                  |         |          |  |  |  |
| p2                                      | N/A          | N/A           | 336.69    | 384.68    | 426.49    | 0.44             | 0.44        | 0.44        |                  |         |          |  |  |  |
| p0_score:                               | 3.96         |               |           |           |           |                  |             |             |                  |         |          |  |  |  |
| p1_score:                               | 3.86         |               |           |           |           |                  |             |             |                  |         |          |  |  |  |
| p2_score:                               | 3.82         |               |           |           |           |                  |             |             |                  |         |          |  |  |  |
| Infrastructure_Operations_Scores:       |              |               |           |           | vMotion   |                  | SVMotion    |             | XVMotion         |         | Deploy   |  |  |  |
| Completed_Ops_PerHour                   |              |               |           |           | 28.00     |                  | 15.00       |             | 16.00            |         | 18.00    |  |  |  |
| Avg_Seconds_To_Complete                 |              |               |           |           | 1.04      |                  | 15.30       |             | 13.16            |         | 159.08   |  |  |  |
| Failures                                |              |               |           |           | 3.00      |                  | 0.00        |             | 0.00             |         | 0.00     |  |  |  |
| Ratio                                   |              |               |           |           | 0.95      |                  | 1.15        |             | 1.23             |         | 1.24     |  |  |  |
| Number_Of_Threads                       |              |               |           |           | 1         |                  | 1           |             | 1                |         | 1        |  |  |  |
| Summary                                 |              |               |           |           |           | Run_Is_Compliant |             |             | Median_Phase(p1) |         |          |  |  |  |
| Unreviewed_VMmark4_Applications_Score   |              |               |           |           |           | 3.86             |             |             |                  |         |          |  |  |  |
| Unreviewed_VMmark4_Infrastructure_Score |              |               |           |           |           | 1.14             |             |             |                  |         |          |  |  |  |
| Unreviewed_VMmark4_Score                |              |               |           |           |           | 3.31 @ 3.6 Tiles |             |             |                  |         |          |  |  |  |

Configuration

|                         |
|-------------------------|
|                         |
| Virtualization Software |



|                                                                                       |                                                                     |                                                   |                         |            |                      |                |                                                                                |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------|-------------------------|------------|----------------------|----------------|--------------------------------------------------------------------------------|
| Virtual Host Bus Adapter Vendors and Models                                           | <b>HBA</b>                                                          | <b>Model</b>                                      |                         |            | <b>Speed</b>         | <b>Drive</b>   | <b>Firmware</b>                                                                |
|                                                                                       | <b>vmhba4</b>                                                       | Emulex LPe36002 2-Port 64Gb Fibre Channel Adapter |                         |            | 32 Gbps              | lpfc           | 14.4.393.25                                                                    |
|                                                                                       | <b>vmhba5</b>                                                       | Emulex LPe36002 2-Port 64Gb Fibre Channel Adapter |                         |            | 32 Gbps              | lpfc           | 14.4.393.25                                                                    |
|                                                                                       | <b>vmhba6</b>                                                       | Emulex LPe36002 2-Port 64Gb Fibre Channel Adapter |                         |            | 32 Gbps              | lpfc           | 14.4.393.25                                                                    |
|                                                                                       | <b>vmhba7</b>                                                       | Emulex LPe36002 2-Port 64Gb Fibre Channel Adapter |                         |            | 64 Gbps              | lpfc           | 14.4.393.25                                                                    |
| Power Supply Quantity, Name/Part Number, Wattage, Firmware, and Type (Voltage, AC/DC) | 2 x Delta 2400W PSU<br>PN: SP57B07051<br>FW: 7.54<br>Type: 230V, AC |                                                   |                         |            |                      |                |                                                                                |
| Cooling Type (Air Cooling, Closed Loop Cooling, Direct Liquid Cooling, or Other)      | Air Cooling                                                         |                                                   |                         |            |                      |                |                                                                                |
| Other Hardware                                                                        | Brocade X6-4 Directors                                              |                                                   |                         |            |                      |                |                                                                                |
| Other Software                                                                        | None                                                                |                                                   |                         |            |                      |                |                                                                                |
| BIOS Availability Date (MM-DD-YYYY)                                                   | 09-23-2025                                                          |                                                   |                         |            |                      |                |                                                                                |
| Hardware Availability Date (MM-DD-YYYY)                                               | 10-10-2024                                                          |                                                   |                         |            |                      |                |                                                                                |
| Software Availability Date (MM-DD-YYYY)                                               | 09-29-2025                                                          |                                                   |                         |            |                      |                |                                                                                |
| Network                                                                               |                                                                     |                                                   |                         |            |                      |                |                                                                                |
| Number of Virtual Network Controllers                                                 | 2                                                                   |                                                   |                         |            |                      |                |                                                                                |
| Virtual Network Controllers, Speeds, MTUs, Firmware, Drivers, Vendors and Models      | <b>Device</b>                                                       | <b>Speed</b>                                      | <b>Duplex</b>           | <b>MTU</b> | <b>Firmware</b>      | <b>Driver</b>  | <b>Description</b>                                                             |
|                                                                                       | <b>vmnic0</b>                                                       | 100 Gbps                                          | Full                    | 9000       | 22.43.1014           | nmlx5_core     | Mellanox Technologies ConnectX-6 Dx EN NIC OCP3.0 OCP 100GbE dual-port, QSFP56 |
|                                                                                       | <b>vmnic1</b>                                                       | 100 Gbps                                          | Full                    | 9000       | 22.43.1014           | nmlx5_core     | Mellanox Technologies ConnectX-6 Dx EN NIC OCP3.0 OCP 100GbE dual-port, QSFP56 |
| Number of Virtual Switches                                                            | 2                                                                   |                                                   |                         |            |                      |                |                                                                                |
| Virtual Switches, Ports, Port Groups, MTUs, Uplinks                                   | <b>Switch</b>                                                       | <b>Ports</b>                                      | <b>Configured Ports</b> |            | <b>MTU</b>           | <b>Uplinks</b> |                                                                                |
|                                                                                       | <b>vSwitch0</b>                                                     | 9216                                              | 128                     |            | 9000                 | vmnic0         |                                                                                |
|                                                                                       | <b>vSwitch1</b>                                                     | 9216                                              | 128                     |            | 9000                 | vmnic1         |                                                                                |
|                                                                                       | <b>Switch</b>                                                       | <b>Port Group</b>                                 |                         |            |                      | <b>VLAN ID</b> | <b>Upinks</b>                                                                  |
|                                                                                       | <b>vSwitch0</b>                                                     | Management Network, PortGrp1, VM Network, vMotion |                         |            |                      | 0              | vmnic0                                                                         |
|                                                                                       | <b>vSwitch1</b>                                                     | PortGrp2, PortGrp3                                |                         |            |                      | 0              | vmnic1                                                                         |
|                                                                                       |                                                                     |                                                   |                         |            |                      |                |                                                                                |
| VMkernel Network Adapters, Port Groups, MTU, TCP/IP Stacks, and Services              | <b>Device</b>                                                       | <b>Port Group</b>                                 |                         | <b>MTU</b> | <b>TCPU/IP Stack</b> |                | <b>Services</b>                                                                |
|                                                                                       | <b>vmk0</b>                                                         | Management Network                                |                         | 9000       | Default              |                | Management                                                                     |
|                                                                                       | <b>vmk1</b>                                                         | vMotion                                           |                         | 9000       | Default              |                | vMotion                                                                        |
| Physical Switch Vendors, Models and Speeds                                            | Lenovo ThinkSystem NE10032 RackSwitch, 100Gb                        |                                                   |                         |            |                      |                |                                                                                |
| Primary Storage                                                                       |                                                                     |                                                   |                         |            |                      |                |                                                                                |
| Storage Category                                                                      | SCSI Target                                                         |                                                   |                         |            |                      |                |                                                                                |

|            |               |        |         |                            |
|------------|---------------|--------|---------|----------------------------|
| Datastores | Datastores    | Type   | Size    | Storage Device             |
|            | SS_Deploy48   | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_SVmotion48 | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_XVmotion48 | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | Template48    | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile0a     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile0b     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile0c     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile0d     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile0e     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile1a     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile1b     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile1c     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile1d     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile1e     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile2a     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile2b     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile2c     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile2d     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile2e     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile3a     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile3b     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile3c     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile3d     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |
|            | SS_Tile3e     | VMFS-6 | 3.84 TB | LIO-ORG Fibre Channel Disk |

|                           |    |
|---------------------------|----|
| Number of Storage Devices | 25 |
|---------------------------|----|

|                                                                    |                               |         |               |         |               |          |                       |                                                                            |                 |
|--------------------------------------------------------------------|-------------------------------|---------|---------------|---------|---------------|----------|-----------------------|----------------------------------------------------------------------------|-----------------|
| 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 |
|                                                                    | Local NVMe Disk (Boot Device) | 960 GB  | Direct-Access | Micron  | MTFDKBA960TFR | N/A      | FIXED                 | preferred=none                                                             | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | SS_Deploy48   | 4.0      | VMW_PSP_MRU           | Current Path=vmhba7:C0:T1:L0 (SUT1)<br>Current Path=vmhba4:C0:T0:L0 (SUT2) | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | SS_SVmotion48 | 4.0      | VMW_PSP_MRU           | Current Path=vmhba7:C0:T3:L0 (SUT1)<br>Current Path=vmhba4:C0:T1:L0 (SUT2) | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | SS_XVmotion48 | 4.0      | VMW_PSP_MRU           | Current Path=vmhba7:C0:T2:L0 (SUT1)<br>Current Path=vmhba4:C0:T2:L0 (SUT2) | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | Template48    | 4.0      | VMW_PSP_MRU           | Current Path=vmhba7:C0:T0:L0 (SUT1)<br>Current Path=vmhba4:C0:T3:L0 (SUT2) | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile0a     | 4.0      | VMW_PSP_MRU           | Current Path=vmhba4:C0:T0:L0 (SUT1)<br>Current Path=vmhba5:C0:T1:L0 (SUT2) | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile0b     | 4.0      | VMW_PSP_MRU           | Current Path=vmhba5:C0:T5:L0 (SUT1)<br>Current Path=vmhba7:C0:T4:L0 (SUT2) | 1               |
|                                                                    | LIO-ORG Fibre Channel Disk    | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile0c     | 4.0      | VMW_PSP_MRU           | Current Path=vmhba6:C0:T3:L0 (SUT1)<br>Current Path=vmhba6:C0:T1:L0 (SUT2) | 1               |

|                            |         |               |         |           |     |             |                                                                            |   |
|----------------------------|---------|---------------|---------|-----------|-----|-------------|----------------------------------------------------------------------------|---|
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile0d | 4.0 | VMW_PSP_MRU | Current Path=vmhba4:C0:T1:L0 (SUT1)<br>Current Path=vmhba5:C0:T0:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile0e | 4.0 | VMW_PSP_MRU | Current Path=vmhba6:C0:T3:L1 (SUT1)<br>Current Path=vmhba6:C0:T1:L1 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile1a | 4.0 | VMW_PSP_MRU | Current Path=vmhba5:C0:T1:L0 (SUT1)<br>Current Path=vmhba6:C0:T4:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile1b | 4.0 | VMW_PSP_MRU | Current Path=vmhba6:C0:T0:L0 (SUT1)<br>Current Path=vmhba6:C0:T1:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile1c | 4.0 | VMW_PSP_MRU | Current Path=vmhba4:C0:T3:L0 (SUT1)<br>Current Path=vmhba5:C0:T2:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile1d | 4.0 | VMW_PSP_MRU | Current Path=vmhba5:C0:T0:L0 (SUT1)<br>Current Path=vmhba7:C0:T6:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile1e | 4.0 | VMW_PSP_MRU | Current Path=vmhba4:C0:T3:L1 (SUT1)<br>Current Path=vmhba5:C0:T2:L1 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile2a | 4.0 | VMW_PSP_MRU | Current Path=vmhba6:C0:T5:L0 (SUT1)<br>Current Path=vmhba6:C0:T4:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile2b | 4.0 | VMW_PSP_MRU | Current Path=vmhba4:C0:T2:L0 (SUT1)<br>Current Path=vmhba5:C0:T3:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile2c | 4.0 | VMW_PSP_MRU | Current Path=vmhba5:C0:T6:L0 (SUT1)<br>Current Path=vmhba7:C0:T3:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile2d | 4.0 | VMW_PSP_MRU | Current Path=vmhba6:C0:T4:L0 (SUT1)<br>Current Path=vmhba6:C0:T5:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile2e | 4.0 | VMW_PSP_MRU | Current Path=vmhba5:C0:T6:L1 (SUT1)<br>Current Path=vmhba7:C0:T3:L1 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile3a | 4.0 | VMW_PSP_MRU | Current Path=vmhba4:C0:T2:L0 (SUT1)<br>Current Path=vmhba5:C0:T5:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile3b | 4.0 | VMW_PSP_MRU | Current Path=vmhba5:C0:T1:L0 (SUT1)<br>Current Path=vmhba7:C0:T0:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile3c | 4.0 | VMW_PSP_MRU | Current Path=vmhba6:C0:T1:L0 (SUT1)<br>Current Path=vmhba6:C0:T3:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile3d | 4.0 | VMW_PSP_MRU | Current Path=vmhba4:C0:T5:L0 (SUT1)<br>Current Path=vmhba5:C0:T4:L0 (SUT2) | 1 |
| LIO-ORG Fibre Channel Disk | 3.84 TB | Direct-Access | LIO-ORG | SS_Tile3e | 4.0 | VMW_PSP_MRU | Current Path=vmhba6:C0:T1:L1 (SUT1)<br>Current Path=vmhba6:C0:T3:L1 (SUT2) | 1 |

|                                       |                           |
|---------------------------------------|---------------------------|
| How Datastores Map to Storage Devices | See Storage Notes Section |
| VMware vSAN Configuration (if used)   | None                      |
| RAID Configuration (if used)          | None                      |

| Server Management                               |    |
|-------------------------------------------------|----|
| VMware vCenter Server<br>Number of vCPUs        | 8  |
| VMware vCenter Server Virtual<br>Memory (in GB) | 30 |

| Clients                                   |   |
|-------------------------------------------|---|
| Total Client VMs (including Prime Client) | 5 |

| Number of Client Hosts (all subsequent fields in this section per Client Host)   | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|---------|------------------------------|--------|-------------------------------------------------------------|--|--|--|-------------|---------|-------|------------------|---------------|----------|---------------|-------------|---------------|--------|----------|--------|----------|------------------------------|--------|-------------------------------------------------------------|--------|---------------|----------|------|------------------------------|--------|-------------------------------------------------------------|---------------|--------|----------|------|--------|------------------------------|--------|---------------------------------------------------------|---------|----------|---------------|----------|------------------------------|--------|----------------------------------------------------------|----------|-------------|---|--------|----------|------------|---|--------|----------|--------------|---|--------|---------------|----------|--------------------|---|--------|----------|-------------|---|--------|
| System Model(s)                                                                  | <ul style="list-style-type: none"><li>Client Host 1: Lenovo ThinkSystem SR665 V3</li><li>Client Host 2: Lenovo ThinkSystem SR665 V3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Processor Vendor(s) and Model(s)                                                 | <ul style="list-style-type: none"><li>Client Host 1: AMD EPYC 9654</li><li>Client Host 2: AMD EPYC 9654</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Processor Speed(s) (GHz)                                                         | <ul style="list-style-type: none"><li>Client Host 1: 2.4 GHz</li><li>Client Host 2: 2.4 GHz</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Total Sockets/Total Cores/Total Threads                                          | <table><tr><th>Client Host</th><th>Sockets</th><th>Cores</th><th>Threads</th></tr><tr><td>Client Host 1</td><td>2</td><td>192</td><td>384</td></tr><tr><td>Client Host 2</td><td>2</td><td>192</td><td>384</td></tr><tr><td>Total</td><td>4</td><td>384</td><td>768</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                  |         |                              |        |                                                             |  |  |  | Client Host | Sockets | Cores | Threads          | Client Host 1 | 2        | 192           | 384         | Client Host 2 | 2      | 192      | 384    | Total    | 4                            | 384    | 768                                                         |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host                                                                      | Sockets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Cores              | Threads          |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 1                                                                    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 192                | 384              |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 2                                                                    | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 192                | 384              |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Total                                                                            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 384                | 768              |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| NUMA Nodes                                                                       | <ul style="list-style-type: none"><li>Client Host 1: 2</li><li>Client Host 2: 2</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Memory Size (in GB) per Client Host                                              | <table><tr><th>Client Host</th><th>BIOS</th><th>ESXi</th></tr><tr><td>Client Host 1</td><td>1536 GB</td><td>1536 GB</td></tr><tr><td>Client Host 2</td><td>1536 GB</td><td>1536 GB</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                  |         |                              |        |                                                             |  |  |  | Client Host | BIOS    | ESXi  | Client Host 1    | 1536 GB       | 1536 GB  | Client Host 2 | 1536 GB     | 1536 GB       |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host                                                                      | BIOS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ESXi               |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 1                                                                    | 1536 GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1536 GB            |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 2                                                                    | 1536 GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1536 GB            |                  |         |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Virtual Network Controllers, Speeds, MTU, Firmware, Drivers, Vendors, and Models | <table><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><tr><td rowspan="2">Client Host 1</td><td>vmnic0</td><td>100 Gbps</td><td>Full</td><td>9000</td><td>233.0.196.0 /pkg 233.1.181.0</td><td>bnxnet</td><td>Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter</td></tr><tr><td>vmnic1</td><td>100 Gbps</td><td>Full</td><td>9000</td><td>233.0.196.0 /pkg 233.1.181.0</td><td>bnxnet</td><td>Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter</td></tr><tr><td rowspan="2">Client Host 2</td><td>vmnic4</td><td>100 Gbps</td><td>Full</td><td>9000</td><td>233.0.196.0 /pkg 233.1.181.0</td><td>bnxnet</td><td>Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapte</td></tr><tr><td>vmnic5</td><td>100 Gbps</td><td>Full</td><td>9000</td><td>233.0.196.0 /pkg 233.1.181.0</td><td>bnxnet</td><td>Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapter</td></tr></table>                                                                                                                                                                            |                    |                  |         |                              |        |                                                             |  |  |  | Client Host | Device  | Speed | Duplex           | MTU           | Firmware | Driver        | Description | Client Host 1 | vmnic0 | 100 Gbps | Full   | 9000     | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter | vmnic1 | 100 Gbps      | Full     | 9000 | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter | Client Host 2 | vmnic4 | 100 Gbps | Full | 9000   | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapte | vmnic5  | 100 Gbps | Full          | 9000     | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapter |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host                                                                      | Device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Speed              | Duplex           | MTU     | Firmware                     | Driver | Description                                                 |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 1                                                                    | vmnic0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 100 Gbps           | Full             | 9000    | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vmnic1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 100 Gbps           | Full             | 9000    | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-port PCIe 4 Ethernet Adapter |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 2                                                                    | vmnic4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 100 Gbps           | Full             | 9000    | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapte     |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vmnic5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 100 Gbps           | Full             | 9000    | 233.0.196.0 /pkg 233.1.181.0 | bnxnet | Broadcom 57508 100GbE QSFP56 2-Port OCP Ethernet Adapter    |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Virtual Switches, Ports, Port Groups, MTUs, and Uplinks                          | <table><tr><th>Client Host</th><th>Switch</th><th>Ports</th><th>Configured Ports</th><th>MTU</th><th>Uplinks</th></tr><tr><td rowspan="2">Client Host 1</td><td>vSwitch0</td><td>9216</td><td>128</td><td>9000</td><td>vmnic0</td></tr><tr><td>vSwitch1</td><td>9216</td><td>128</td><td>9000</td><td>vmnic1</td></tr><tr><td rowspan="2">Client Host 2</td><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></table><br><table><tr><th>Client Host</th><th>Switch</th><th>Port Group</th><th>VLAN ID</th><th>Uplinks</th></tr><tr><td rowspan="4">Client Host 1</td><td>vSwitch0</td><td>Management Network</td><td>0</td><td>vmnic0</td></tr><tr><td>vSwitch0</td><td>Primeclient</td><td>0</td><td>vmnic0</td></tr><tr><td>vSwitch0</td><td>VM Network</td><td>0</td><td>vmnic0</td></tr><tr><td>vSwitch1</td><td>VM Network 2</td><td>0</td><td>vmnic1</td></tr><tr><td rowspan="2">Client Host 2</td><td>vSwitch0</td><td>Management Network</td><td>0</td><td>vmnic4</td></tr><tr><td>vSwitch0</td><td>Primeclient</td><td>0</td><td>vmnic4</td></tr></table> |                    |                  |         |                              |        |                                                             |  |  |  | Client Host | Switch  | Ports | Configured Ports | MTU           | Uplinks  | Client Host 1 | vSwitch0    | 9216          | 128    | 9000     | vmnic0 | vSwitch1 | 9216                         | 128    | 9000                                                        | vmnic1 | 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      | vmnic0                                                   | vSwitch0 | Primeclient | 0 | vmnic0 | vSwitch0 | VM Network | 0 | vmnic0 | vSwitch1 | VM Network 2 | 0 | vmnic1 | Client Host 2 | vSwitch0 | Management Network | 0 | vmnic4 | vSwitch0 | Primeclient | 0 | vmnic4 |
| Client Host                                                                      | Switch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Ports              | Configured Ports | MTU     | Uplinks                      |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 1                                                                    | vSwitch0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9216               | 128              | 9000    | vmnic0                       |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vSwitch1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9216               | 128              | 9000    | vmnic1                       |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| 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                | vmnic0  |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vSwitch0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Primeclient        | 0                | vmnic0  |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vSwitch0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VM Network         | 0                | vmnic0  |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vSwitch1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VM Network 2       | 0                | vmnic1  |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
| Client Host 2                                                                    | vSwitch0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Management Network | 0                | vmnic4  |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |
|                                                                                  | vSwitch0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Primeclient        | 0                | vmnic4  |                              |        |                                                             |  |  |  |             |         |       |                  |               |          |               |             |               |        |          |        |          |                              |        |                                                             |        |               |          |      |                              |        |                                                             |               |        |          |      |        |                              |        |                                                         |         |          |               |          |                              |        |                                                          |          |             |   |        |          |            |   |        |          |              |   |        |               |          |                    |   |        |          |             |   |        |

|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                         | vSwitch0           | VM Network   | 0            | vmnic4              |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------|--------------|---------------------|-------------|--------|-------------------|-----|--------------|----------|---------------|------|--------------------|------|---------|---------------------|---------------|------|--------------------|------|---------|---------------------|
|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                         | vSwitch1           | VM Network 2 | 0            | vmnic5              |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
| VMkernel Network Adapters, Port Groups, MTUs, TCP/IP Stacks, and Services | <table><tr><th>Client Host</th><th>Device</th><th>Port Group/DVPort</th><th>MTU</th><th>TCP/IP Stack</th><th>Services</th></tr><tr><td>Client Host 1</td><td>vmk0</td><td>Management Network</td><td>9000</td><td>Default</td><td>vMotion, Management</td></tr><tr><td>Client Host 2</td><td>vmk0</td><td>Management Network</td><td>9000</td><td>Default</td><td>vMotion, Management</td></tr></table> |                    |              |              |                     | Client Host | Device | Port Group/DVPort | MTU | TCP/IP Stack | Services | Client Host 1 | vmk0 | Management Network | 9000 | Default | vMotion, Management | Client Host 2 | vmk0 | Management Network | 9000 | Default | vMotion, Management |
| Client Host                                                               | Device                                                                                                                                                                                                                                                                                                                                                                                                  | Port Group/DVPort  | MTU          | TCP/IP Stack | Services            |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
| Client Host 1                                                             | vmk0                                                                                                                                                                                                                                                                                                                                                                                                    | Management Network | 9000         | Default      | vMotion, Management |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
| Client Host 2                                                             | vmk0                                                                                                                                                                                                                                                                                                                                                                                                    | Management Network | 9000         | Default      | vMotion, Management |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
| Client Storage Notes                                                      | See Client Notes Section                                                                                                                                                                                                                                                                                                                                                                                |                    |              |              |                     |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
| Other Hardware                                                            | None                                                                                                                                                                                                                                                                                                                                                                                                    |                    |              |              |                     |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |
| Other Software                                                            | Client Hosts: VMware ESX 9.0.0.0, Build 24755229                                                                                                                                                                                                                                                                                                                                                        |                    |              |              |                     |             |        |                   |     |              |          |               |      |                    |      |         |                     |               |      |                    |      |         |                     |

## Notes for Workload

Template deployed with disk type: Thick Provision Lazy Zeroed

### Virtualization Software Notes

- vSphere DRS Enabled
- vSphere DRS Automation Level set to Fully Automated
- vSphere DRS Migration Threshold Level set to 2
- Logging disabled for all VMs (default Enabled)
- CD/DVD device was removed from all VMs (default Present)
- VM scoreboard disabled for all VMs (default Enabled)
- Primeclient's third virtual disk configured to be 750GB (default no third virtual disk)
- Client VMs vCPU set to 96 (default 64)
- Logical CPU configuration changed for all Client VMs to 48 cores per socket (default 1)
- Logical CPU configuration changed for all multi-CPU VMs (except Client, Primeclient, Template, AuctionK VMs) to 1 socket with multiple cores (default Single core per socket)
- All Standby VMs had CPU and Memory shares set to low (default normal)
- All SocialNetwork VMs had CPU shares set to low (default normal)
- All DS35DB, NoSQLBench VMs had CPU shares set to high (default normal)
- All DS35DB VMs had Memory shares set to high (default normal)
- All memory reserved for all DS35DB VMs (default non-reserved)
- sched.mem.pin set to TRUE for all DS35DB VMs (default FALSE)
- sched.mem.lpage.enable1GPage set to TRUE for all DS35DB VMs (default FALSE)

SUT Host ESX 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.LargeInterleave              | 0      | 0      | 1       |
| Numa.LocalityWeightActionAffinity | 0      | 0      | 130     |
| Numa.MigThreshold                 | 0      | 0      | 2       |

|                                               |                  |                  |          |
|-----------------------------------------------|------------------|------------------|----------|
| <b>Numa.PreferHT</b>                          | 1                | 1                | 0        |
| <b>Power.CpuPolicy</b>                        | High Performance | High Performance | Balanced |
| <b>UserVars.HostClientCEIPOptIn</b>           | 2                | 2                | 0        |
| <b>UserVars.HostClientSessionTimeout</b>      | 0                | 0                | 900      |
| <b>UserVars.SuppressShellWarning</b>          | 1                | 1                | 0        |
| <b>VMkernel.Boot.hyperthreadingMitigation</b> | True             | True             | False    |

SUT Host ESX Modules Options:

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

## Server Notes

Server BIOS Settings

- Workload Profile set to Maximum Performance (default Maximum Efficiency)
- Fan Speed Boost set to High (default Normal)

## Networking Notes

### vSwitch Configuration

- All SUT and Client hosts are configured with Standard vSwitches
- The MTU of all vSwitches and VMkernel NICs on all SUT and Client hosts was set to 9000 (default 1500)

SUT Hosts:

- vSwitch0 configuration:
  - Uplink: vmnic0 (100Gbps)
  - Usage:
    - vmk0 for Management
    - vmk1 (SUT Host 1) and vmk2 (SUT Host 2) for vMotion
    - "VM Network" port group for all AuctionK, Template
    - "PortGrp1" port group for all AuctionWebDNosql, AuctionWebEDB, AuctionWebF
- vSwitch1 configuration:
  - Uplink: vmnic1 (100Gbps)
  - Usage:
    - "PortGrp2" port group for all AuctionAppA, AuctionAppB, AuctionAppC, AuctionWebA, DS35DB, DS35WebA, DS35WebB, DS35WebC, NoSQLBench, Standby
    - "PortGrp3" port group for all AuctionWebB, AuctionWebC, SocialNetwork

Client Hosts:

- vSwitch0 configuration:
  - Uplink: vmnic0 (100Gbps) on Client Host 1
  - Uplink: vmnic4 (100Gbps) on Client Host 2
  - Usage:
    - vmk0 for Management and vMotion
    - "Primeclient" port group for Primeclient VM
    - "VM Network" port group for Client0, Client3 VMs
- vSwitch1 configuration:
  - Uplink: vmnic1 (100Gbps) on Client Host 1
  - Uplink: vmnic5 (100Gbps) on Client Host 2

- Usage:
  - "VM Network 2" port group for Client1, Client2 VMs

Storage Notes

- All SUT hosts OS installed on 1 x Lenovo ThinkSystem M.2 NVMe 2-Bay RAID Enablement Kit 7450 960GB SSD
- All vmhba7 on the SUT cluster is 64 Gbps for Infrastructure Operations, the rest are 32 Gbps for Tiles

Primary and Secondary Storage: Fibre Channel Target via SCSI Target Server (LIO)

- 5 x Lenovo ThinkSystem SR665 configured as Fibre Channel Targets

- Hardware Details

| Hardware                 | Processor                          | Memory                                   | FC HBA                                                                              | OS Storage System (not exported as FC Target LUN)                      | Workload Storage                                                             | Tile                      |
|--------------------------|------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------|
| Lenovo ThinkSystem SR665 | 2 x AMD EPYC 7773X 64-Core 2.2 GHz | 2TB RAM (32 x 64GB DDR4-3200MHz RDIMM)   | 2 x Lenovo ThinkSystem QLogic QLE2772 2-port 32GB HBA used as FC target controllers | 1 x Lenovo ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD | 5 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | 0                         |
| Lenovo ThinkSystem SR665 | 2 x AMD EPYC 7552 48-Core 2.2 GHz  | 768GB RAM (12 x 64GB DDR4-3200MHz RDIMM) | 2 x Lenovo ThinkSystem QLogic QLE2772 2-port 32GB HBA used as FC target controllers | 1 x Lenovo ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD | 5 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | 1                         |
| Lenovo ThinkSystem SR665 | 2 x AMD EPYC 7763 64-Core 2.45 GHz | 2TB RAM (32 x 64GB DDR4-3200MHz RDIMM)   | 2 x Lenovo ThinkSystem QLogic QLE2772 2-port 32GB HBA used as FC target controllers | 1 x Lenovo ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD | 5 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | 2                         |
| Lenovo ThinkSystem SR665 | 2 x AMD EPYC 7763 64-Core 2.45 GHz | 512GB RAM (16 x 32GB DDR4-3200MHz RDIMM) | 2 x Lenovo ThinkSystem QLogic QLE2772 2-port 32GB HBA used as FC target controllers | 1 x Lenovo ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD | 5 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | 3                         |
| Lenovo ThinkSystem SR665 | 2 x AMD EPYC 7763 64-Core 2.45 GHz | 1TB RAM (16 x 64GB DDR4-3200MHz RDIMM)   | 2 x Lenovo ThinkSystem QLogic QLE2772 2-port 32GB HBA used as FC target controllers | 1 x Lenovo ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD | 4 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | Infrastructure Operations |

- Software Details
  - Operating System Storage: SUSE Linux Enterprise Server 15 SP6 - 6.4.0-150600.21-default
  - Fibre Channel Target SW: LIO (part of SUSE Linux Enterprise Server 15 SP6)

- LUN Details for 4 x Lenovo ThinkSystem SR665 FC Target for Tiles
  - Unless otherwise specified, an entire disk device was configured as a single LUN
  - Unless otherwise specified, all storage target servers for tiles are configured identically

| LUN ID | LUN Size | Storage Drive                                                                | Workload                                                                                 |
|--------|----------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| a      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | AuctionKA, AuctionKB, AuctionKC, AuctionKD, SocialNetwork                                |
| b      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | AuctionAppA, AuctionAppB, AuctionAppC, AuctionWebEDB, AuctionWebF, DS35WebB, NoSQLBenchC |
| c      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | AuctionWebA, AuctionWebDNosql, NoSQLBenchB, Standby                                      |
| d      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | AuctionWebB, DS35DB, DS35WebA, NoSQLBenchA                                               |
| e      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | AuctionWebC, DS35WebC                                                                    |

- LUN Details for 1 x Lenovo ThinkSystem SR665 FC Target for Infrastructure Operations

| LUN ID | LUN Size | Storage Drive                                                                | Workload             |
|--------|----------|------------------------------------------------------------------------------|----------------------|
| a      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | SS_SVMotion48 Target |
| b      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | SS_Deploy48 Target   |
| c      | 3.49TB   | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | Template48           |

|   |        |                                                                              |                      |
|---|--------|------------------------------------------------------------------------------|----------------------|
| d | 3.49TB | 1 x Lenovo ThinkSystem U.2 PM1733 3.84TB Entry NVMe PCIe 4.0 x4 Hot Swap SSD | SS_XVMotion48 Target |
|---|--------|------------------------------------------------------------------------------|----------------------|

## Server Management Notes

VMware vCenter 9.0.1.0, Build 24957454 (standard) was hosted on Client Host 2, which is part of the client cluster

## Operating System Notes

SUT Host ESXi Image Profile: ESXi-9.0.1.0-24957456-standard

## Software Notes

None

## Client Notes

- vSphere DRS Disabled

Client Hosts BIOS Settings:

- Operating Mode set to Maximum Performance (default Maximum Efficiency)
- Fan speed set to maximum (default normal)

Client Host ESX 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.LargeInterleave              | 0                | 0                | 1        |
| Numa.LocalityWeightActionAffinity | 0                | 0                | 130      |
| Numa.MigThreshold                 | 0                | 0                | 2        |
| Numa.MonMigEnable                 | 0                | 0                | 1        |
| Numa.PageMigEnable                | 0                | 0                | 1        |
| Numa.PreferHT                     | 1                | 1                | 0        |
| Numa.RebalancePeriod              | 60000            | 60000            | 2000     |
| Numa.SwapLoadEnable               | 0                | 0                | 1        |
| Numa.SwapLocalityEnable           | 0                | 0                | 1        |
| Power.CpuPolicy                   | High Performance | High Performance | Balanced |
| UserVars.HostClientCEIPOptIn      | 2                | 2                | 0        |
| UserVars.HostClientSessionTimeout | 0                | 0                | 900      |

|                                        |      |       |       |
|----------------------------------------|------|-------|-------|
| UserVars.SuppressShellWarning          | 1    | 1     | 0     |
| VMkernel.Boot.hyperthreadingMitigation | True | False | False |

Client Host ESX Modules Options:

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

Client Hosts ESXi Image Profile: ESXi-9.0.0-24755229-standard

Client Storage:

- Client Hosts: OS installed on 1 x Lenovo ThinkSystem 2.5" S4520 960GB Read Intensive SATA 6Gb HS SSD

Client Host VMs:

- Client Host 1: Client0, Client1
- Client Host 2: Client2, Client3, Operations-Appliance-9.0.0.0.24695812, PrimeClient, vcsa

Other Notes

None

VMmark4.properties Settings

- ErrorImmediate = 1 (default 0)
- ReporterSkipNonCompliant = 1 (default 0)
- TileDelay = 2 (default 60)

Virtual Machines

SUT 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 |
|--------------|-------|------------------|-------------|-----------|---------|---------|---------|-----------|------------|---------|-----------|------------|---------|-------------|-------------|-----------|------------|-------------|---------------|
| AuctionAppA0 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0b | PortGrp2   | 17          | 12325         |
| AuctionAppA1 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1b | PortGrp2   | 17          | 12325         |
| AuctionAppA2 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2b | PortGrp2   | 17          | 12325         |
| AuctionAppA3 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3b | PortGrp2   | 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 |
| AuctionAppB0 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0b | PortGrp2   | 17          | 12325         |
| AuctionAppB1 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1b | PortGrp2   | 17          | 12325         |
| AuctionAppB2 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2b | PortGrp2   | 17          | 12325         |
| AuctionAppB3 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3b | PortGrp2   | 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 |
| AuctionAppC0 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0b | PortGrp2   | 17          | 12325         |
| AuctionAppC1 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1b | PortGrp2   | 17          | 12325         |
| AuctionAppC2 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2b | PortGrp2   | 17          | 12325         |
| AuctionAppC3 | 4     | 4                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3b | PortGrp2   | 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 |



|              |       |                  |             |           |         |         |         |           |            |         |           |            |         |             |             |           |            |             |               |
|--------------|-------|------------------|-------------|-----------|---------|---------|---------|-----------|------------|---------|-----------|------------|---------|-------------|-------------|-----------|------------|-------------|---------------|
| AuctionWebF1 | 2     | 2                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1b | PortGrp1   | 17          | 12325         |
| AuctionWebF2 | 2     | 2                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2b | PortGrp1   | 17          | 12325         |
| AuctionWebF3 | 2     | 2                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3b | PortGrp1   | 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 |
| DS35DB0      | 24    | 24               | 49152       | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 49152   | Unlimited | high       | TRUE    | TRUE        | normal      | SS_Tile0d | PortGrp2   | 17          | 12325         |
| DS35DB1      | 24    | 24               | 49152       | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 49152   | Unlimited | high       | TRUE    | TRUE        | normal      | SS_Tile1d | PortGrp2   | 17          | 12325         |
| DS35DB2      | 24    | 24               | 49152       | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 49152   | Unlimited | high       | TRUE    | TRUE        | normal      | SS_Tile2d | PortGrp2   | 17          | 12325         |
| DS35DB3      | 24    | 24               | 49152       | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 49152   | Unlimited | high       | TRUE    | TRUE        | normal      | SS_Tile3d | PortGrp2   | 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 |
| DS35WebA0    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0d | PortGrp2   | 17          | 12325         |
| DS35WebA1    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1d | PortGrp2   | 17          | 12325         |
| DS35WebA2    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2d | PortGrp2   | 17          | 12325         |
| DS35WebA3    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3d | PortGrp2   | 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 |
| DS35WebB0    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0b | PortGrp2   | 17          | 12325         |
| DS35WebB1    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1b | PortGrp2   | 17          | 12325         |
| DS35WebB2    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2b | PortGrp2   | 17          | 12325         |
| DS35WebB3    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3b | PortGrp2   | 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 |
| DS35WebC0    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0e | PortGrp2   | 17          | 12325         |
| DS35WebC1    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1e | PortGrp2   | 17          | 12325         |
| DS35WebC2    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2e | PortGrp2   | 17          | 12325         |
| DS35WebC3    | 6     | 6                | 512         | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3e | PortGrp2   | 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 |
| NoSQLBenchA0 | 8     | 8                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile0d | PortGrp2   | 17          | 12325         |
| NoSQLBenchA1 | 8     | 8                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile1d | PortGrp2   | 17          | 12325         |
| NoSQLBenchA2 | 8     | 8                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile2d | PortGrp2   | 17          | 12325         |
| NoSQLBenchA3 | 8     | 8                | 8192        | TRUE      | FALSE   | Removed | 0       | Unlimited | high       | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | SS_Tile3d | PortGrp2   | 17          | 12325         |

|                  |       |                  |             |           |         |         |         |           |            |         |           |            |         |             |             |            |            |             |               |
|------------------|-------|------------------|-------------|-----------|---------|---------|---------|-----------|------------|---------|-----------|------------|---------|-------------|-------------|------------|------------|-------------|---------------|
| Standby2         | 1     | 1                | 2048        | TRUE      | FALSE   | Removed | 0       | Unlimited | low        | 0       | Unlimited | low        | FALSE   | FALSE       | normal      | SS_Tile2c  | PortGrp2   | 17          | 12325         |
| Standby3         | 1     | 1                | 2048        | TRUE      | FALSE   | Removed | 0       | Unlimited | low        | 0       | Unlimited | low        | FALSE   | FALSE       | normal      | SS_Tile3c  | PortGrp2   | 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-4.0.3-212 | 4     | 1                | 32768       | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | Template48 | VM Network | 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                               | 96    | 48               | 98304       | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | VMmark3_Client_ds2_DE4000 | VM Network             | 17          | 12325         |
| Client1                               | 96    | 48               | 98304       | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | VMmark3_Client_ds1_DE4000 | VM Network             | 17          | 12325         |
| Client2                               | 96    | 48               | 98304       | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | VMmark3_Client_ds2_DE4000 | VM Network             | 17          | 12325         |
| Client3                               | 96    | 48               | 98304       | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | VMmark3_Client_ds1_DE4000 | VM Network             | 17          | 12325         |
| PrimeClient                           | 4     | 1                | 32768       | TRUE      | FALSE   | Removed | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | PrimeclientDS             | Primeclient VM Network | 17          | 12325         |
| vcsa                                  | 8     | 1                | 30720       | FALSE     | TRUE    | Present | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | vcsa901                   | VM Network             | 10          | 12448         |
| Operations-Appliance-9.0.0.0.24695812 | 4     | 1                | 16384       | TRUE      | TRUE    | Present | 0       | Unlimited | normal     | 0       | Unlimited | normal     | FALSE   | FALSE       | normal      | VCF9_OperationManager     | VM Network             | 11          | 12448         |

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