

VMmark® 3.1.1 Results

Server Vendor & Model: Dell EMC PowerEdge R7525
Storage Vendor & Model: Dell EMC PowerMax 8000
Hypervisor: VMware ESXi 7.0 U2 Build 17502111
Datacenter Management Software: VMware vCenter Server 7.0.0d Build 16749653

VMmark 3.1.1 Score =
19.40 @ 22 Tiles

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|--|--|---|
| Number of Hosts: 2 | Uniform Hosts [yes/no]: yes | Total sockets/cores/threads in test: 4/256/512 |
| Tested By: Dell Inc. | | Test Date: 02-12-2021 |
| Performance Section Performance | Configuration Section Configuration | Notes Section Notes for Workload |

Performance

| | weathervane | | | weathervaneE | | | dvdstoreA | | | dvdstoreB | | | dvdstoreC | | | |
|--------|-------------|-------|------------------|--------------|-------|------------------|-----------|-------|---------|-----------|-------|---------|-----------|-------|---------|------|
| TILE_0 | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3551.54 | 0.99 | 2.65 0.33 | 575.13 | 1.01 | 0.67 0.23 | 808.20 | 1.10 | 1310.36 | 536.67 | 1.07 | 1591.86 | 368.27 | 1.06 | 1782.14 | 1.04 |
| p1 | 3544.01 | 0.99 | 1.81 0.06 | 571.18 | 1.00 | 0.79 0.23 | 853.10 | 1.16 | 1128.16 | 605.60 | 1.21 | 1315.05 | 422.00 | 1.22 | 1480.78 | 1.11 |
| p2 | 3529.09 | 0.98 | 1.80 0.08 | 568.20 | 0.99 | 1.00 0.28 | 799.15 | 1.09 | 1363.76 | 528.12 | 1.06 | 1664.48 | 374.90 | 1.08 | 1873.94 | 1.04 |
| TILE_1 | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3563.38 | 0.99 | 2.01 0.15 | 569.83 | 1.00 | 0.62 0.21 | 824.55 | 1.12 | 1234.95 | 555.55 | 1.11 | 1487.13 | 377.15 | 1.09 | 1681.91 | 1.06 |
| p1 | 3550.09 | 0.99 | 2.41 0.20 | 568.44 | 0.99 | 0.51 0.11 | 809.05 | 1.10 | 1335.25 | 564.25 | 1.13 | 1573.81 | 390.18 | 1.13 | 1753.84 | 1.06 |
| p2 | 3527.70 | 0.98 | 2.35 0.19 | 562.13 | 0.98 | 0.52 0.18 | 868.62 | 1.18 | 1056.03 | 595.62 | 1.19 | 1247.65 | 410.27 | 1.18 | 1392.32 | 1.10 |
| TILE_2 | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3581.85 | 1.00 | 0.61 0.00 | 571.53 | 1.00 | 1.00 0.30 | 912.35 | 1.24 | 911.42 | 630.80 | 1.26 | 1074.13 | 418.52 | 1.21 | 1206.61 | 1.13 |
| p1 | 3558.51 | 0.99 | 0.73 0.01 | 567.72 | 0.99 | 0.81 0.21 | 886.62 | 1.21 | 975.68 | 638.73 | 1.28 | 1142.96 | 463.98 | 1.34 | 1277.64 | 1.15 |
| p2 | 3543.79 | 0.98 | 0.75 0.01 | 562.20 | 0.98 | 0.45 0.03 | 891.50 | 1.21 | 999.90 | 612.67 | 1.22 | 1187.52 | 419.68 | 1.21 | 1352.31 | 1.12 |
| TILE_3 | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3555.97 | 0.99 | 1.93 0.11 | 573.92 | 1.00 | 0.72 0.20 | 881.17 | 1.20 | 1046.61 | 597.65 | 1.19 | 1249.30 | 415.90 | 1.20 | 1403.67 | 1.11 |
| p1 | 3533.21 | 0.98 | 2.00 0.11 | 568.36 | 0.99 | 0.87 0.35 | 790.27 | 1.08 | 1404.33 | 545.12 | 1.09 | 1670.76 | 378.52 | 1.09 | 1850.25 | 1.05 |
| p2 | 3523.76 | 0.98 | 2.12 0.18 | 563.83 | 0.99 | 0.57 0.20 | 824.80 | 1.12 | 1256.97 | 549.55 | 1.10 | 1525.37 | 373.90 | 1.08 | 1721.54 | 1.05 |
| TILE_4 | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3559.89 | 0.99 | 2.45 0.20 | 563.67 | 0.99 | 0.70 0.09 | 916.30 | 1.25 | 901.83 | 635.10 | 1.27 | 1058.16 | 420.02 | 1.21 | 1197.86 | 1.13 |
| p1 | 3550.30 | 0.99 | 1.27 0.05 | 558.42 | 0.98 | 0.53 0.08 | 869.90 | 1.18 | 1088.63 | 616.88 | 1.23 | 1284.33 | 447.70 | 1.29 | 1430.52 | 1.13 |
| p2 | 3535.72 | 0.98 | 0.69 0.01 | 554.96 | 0.97 | 0.56 0.12 | 886.38 | 1.21 | 1029.58 | 583.52 | 1.17 | 1236.99 | 414.70 | 1.20 | 1398.59 | 1.10 |
| TILE_5 | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(nRT MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3570.63 | 0.99 | 1.33 0.03 | 567.37 | 0.99 | 0.47 0.08 | 831.95 | 1.13 | 1223.28 | 538.38 | 1.08 | 1479.95 | 378.50 | 1.09 | 1661.05 | 1.06 |

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|----------------|---------|-------|-------------------|--------|-------|-------------------|--------|-------|---------|--------|-------|---------|--------|-------|---------|------|
| p1 | 3550.69 | 0.99 | 1.08 0.01 | 562.25 | 0.98 | 0.45 0.10 | 804.30 | 1.10 | 1329.49 | 556.60 | 1.11 | 1580.64 | 397.85 | 1.15 | 1800.78 | 1.06 |
| p2 | 3538.64 | 0.98 | 1.00 0.01 | 562.17 | 0.98 | 0.54 0.17 | 827.60 | 1.13 | 1276.39 | 548.77 | 1.10 | 1548.59 | 372.55 | 1.07 | 1747.48 | 1.05 |
| TILE_6 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3563.22 | 0.99 | 2.53 0.36 | 562.87 | 0.98 | 0.44 0.10 | 887.70 | 1.21 | 1016.73 | 609.80 | 1.22 | 1219.04 | 414.88 | 1.20 | 1398.91 | 1.11 |
| p1 | 3555.48 | 0.99 | 1.79 0.10 | 562.56 | 0.98 | 0.41 0.08 | 866.42 | 1.18 | 1111.90 | 611.20 | 1.22 | 1314.87 | 440.70 | 1.27 | 1489.84 | 1.12 |
| p2 | 3537.50 | 0.98 | 1.85 0.09 | 561.35 | 0.98 | 0.43 0.13 | 878.92 | 1.20 | 1042.61 | 599.80 | 1.20 | 1263.80 | 410.80 | 1.18 | 1444.78 | 1.10 |
| TILE_7 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3567.73 | 0.99 | 1.78 0.07 | 566.18 | 0.99 | 0.63 0.22 | 895.95 | 1.22 | 972.75 | 614.73 | 1.23 | 1153.46 | 421.93 | 1.22 | 1312.21 | 1.12 |
| p1 | 3558.54 | 0.99 | 1.00 0.04 | 566.23 | 0.99 | 0.49 0.10 | 805.27 | 1.10 | 1373.77 | 553.42 | 1.11 | 1633.72 | 394.40 | 1.14 | 1847.82 | 1.06 |
| p2 | 3545.68 | 0.99 | 1.05 0.00 | 563.89 | 0.99 | 0.42 0.06 | 841.30 | 1.15 | 1206.06 | 565.62 | 1.13 | 1463.88 | 358.18 | 1.03 | 1717.44 | 1.05 |
| TILE_8 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3577.30 | 0.99 | 0.50 0.00 | 562.59 | 0.98 | 0.55 0.07 | 803.05 | 1.09 | 1379.58 | 527.23 | 1.05 | 1682.27 | 351.73 | 1.01 | 1931.58 | 1.03 |
| p1 | 3561.71 | 0.99 | 0.62 0.00 | 556.48 | 0.97 | 0.49 0.08 | 800.33 | 1.09 | 1344.34 | 556.98 | 1.11 | 1584.04 | 382.55 | 1.10 | 1804.47 | 1.05 |
| p2 | 3549.21 | 0.99 | 0.69 0.01 | 551.66 | 0.96 | 0.51 0.07 | 855.85 | 1.17 | 1123.31 | 576.52 | 1.15 | 1340.50 | 389.18 | 1.12 | 1559.32 | 1.07 |
| TILE_9 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3581.95 | 1.00 | 1.03 0.01 | 569.79 | 1.00 | 0.77 0.19 | 856.95 | 1.17 | 1150.90 | 575.85 | 1.15 | 1407.31 | 390.27 | 1.13 | 1609.73 | 1.08 |
| p1 | 3567.12 | 0.99 | 1.08 0.01 | 562.78 | 0.98 | 0.55 0.09 | 887.90 | 1.21 | 989.69 | 636.67 | 1.27 | 1146.55 | 442.90 | 1.28 | 1295.96 | 1.14 |
| p2 | 3540.19 | 0.98 | 1.08 0.02 | 561.14 | 0.98 | 0.68 0.10 | 895.23 | 1.22 | 965.64 | 616.55 | 1.23 | 1150.16 | 418.50 | 1.21 | 1337.18 | 1.12 |
| TILE_10 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3550.98 | 0.99 | 2.24 0.31 | 570.78 | 1.00 | 0.93 0.22 | 868.88 | 1.18 | 1090.22 | 601.62 | 1.20 | 1280.31 | 401.20 | 1.16 | 1499.86 | 1.10 |
| p1 | 3548.65 | 0.99 | 1.43 0.06 | 568.22 | 0.99 | 0.77 0.17 | 905.62 | 1.23 | 952.33 | 641.35 | 1.28 | 1139.47 | 442.88 | 1.28 | 1288.17 | 1.15 |
| p2 | 3528.85 | 0.98 | 1.36 0.03 | 564.42 | 0.99 | 0.54 0.10 | 905.65 | 1.23 | 964.09 | 622.58 | 1.24 | 1137.44 | 422.00 | 1.22 | 1316.77 | 1.13 |
| TILE_11 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3568.37 | 0.99 | 2.37 0.25 | 566.98 | 0.99 | 0.36 0.17 | 832.27 | 1.13 | 1229.15 | 563.77 | 1.13 | 1471.57 | 393.30 | 1.13 | 1707.61 | 1.07 |
| p1 | 3553.79 | 0.99 | 2.40 0.24 | 563.86 | 0.99 | 0.38 0.07 | 862.30 | 1.17 | 1129.05 | 596.60 | 1.19 | 1353.16 | 408.52 | 1.18 | 1567.20 | 1.10 |
| p2 | 3539.54 | 0.98 | 2.18 0.17 | 563.92 | 0.99 | 0.50 0.13 | 897.35 | 1.22 | 991.08 | 594.67 | 1.19 | 1170.09 | 416.52 | 1.20 | 1352.67 | 1.11 |
| TILE_12 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3563.72 | 0.99 | 0.55 0.00 | 565.99 | 0.99 | 0.61 0.16 | 870.92 | 1.19 | 1082.59 | 625.67 | 1.25 | 1259.30 | 425.80 | 1.23 | 1441.39 | 1.12 |
| p1 | 3552.63 | 0.99 | 0.62 0.00 | 568.71 | 0.99 | 0.42 0.12 | 806.98 | 1.10 | 1346.23 | 537.65 | 1.07 | 1622.66 | 380.20 | 1.10 | 1840.48 | 1.05 |
| p2 | 3545.81 | 0.99 | 0.72 0.01 | 563.32 | 0.98 | 0.68 0.17 | 843.98 | 1.15 | 1163.57 | 568.80 | 1.14 | 1402.31 | 384.48 | 1.11 | 1606.92 | 1.07 |
| TILE_13 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3572.84 | 0.99 | 0.68 0.00 | 570.31 | 1.00 | 0.76 0.20 | 835.88 | 1.14 | 1219.15 | 589.05 | 1.18 | 1441.09 | 401.55 | 1.16 | 1671.36 | 1.09 |
| p1 | 3556.18 | 0.99 | 0.74 0.01 | 568.77 | 0.99 | 0.82 0.27 | 841.52 | 1.15 | 1198.94 | 565.90 | 1.13 | 1445.61 | 397.55 | 1.15 | 1664.41 | 1.08 |
| p2 | 3546.32 | 0.99 | 0.72 0.00 | 570.70 | 1.00 | 0.69 0.16 | 820.85 | 1.12 | 1296.77 | 549.02 | 1.10 | 1562.97 | 363.82 | 1.05 | 1826.70 | 1.05 |
| TILE_14 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM |
| p0 | 3558.39 | 0.99 | 2.71 0.35 | 566.74 | 0.99 | 0.79 0.13 | 800.75 | 1.09 | 1377.06 | 544.25 | 1.09 | 1671.13 | 371.10 | 1.07 | 1901.94 | 1.04 |

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|--|---------|-------|-------------------|--------|-------|-------------------|----------------|-------|---------|-----------------|-------|---------|-----------------|-------|---------|---------------|--|
| p1 | 3552.97 | 0.99 | 1.80 0.07 | 563.94 | 0.99 | 0.67 0.17 | 801.55 | 1.09 | 1380.93 | 526.70 | 1.05 | 1683.80 | 371.68 | 1.07 | 1929.48 | 1.04 | |
| p2 | 3535.73 | 0.98 | 1.83 0.05 | 563.08 | 0.98 | 0.67 0.12 | 901.45 | 1.23 | 961.83 | 616.60 | 1.23 | 1153.55 | 419.90 | 1.21 | 1322.44 | 1.12 | |
| TILE_15 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3568.84 | 0.99 | 1.83 0.10 | 563.17 | 0.98 | 0.48 0.12 | 884.75 | 1.20 | 1031.95 | 632.08 | 1.26 | 1218.00 | 434.82 | 1.25 | 1380.47 | 1.13 | |
| p1 | 3553.75 | 0.99 | 2.01 0.11 | 563.02 | 0.98 | 0.50 0.09 | 834.08 | 1.14 | 1228.46 | 559.88 | 1.12 | 1481.57 | 379.07 | 1.09 | 1682.67 | 1.06 | |
| p2 | 3531.60 | 0.98 | 1.99 0.10 | 558.72 | 0.98 | 0.47 0.14 | 841.02 | 1.15 | 1216.86 | 567.48 | 1.13 | 1452.53 | 401.57 | 1.16 | 1668.83 | 1.08 | |
| TILE_16 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3558.51 | 0.99 | 2.79 0.35 | 568.79 | 0.99 | 0.38 0.10 | 888.08 | 1.21 | 1009.57 | 641.80 | 1.28 | 1152.27 | 440.68 | 1.27 | 1334.98 | 1.14 | |
| p1 | 3544.07 | 0.99 | 2.08 0.18 | 567.41 | 0.99 | 0.46 0.09 | 906.67 | 1.23 | 926.02 | 620.00 | 1.24 | 1129.92 | 425.35 | 1.23 | 1276.44 | 1.13 | |
| p2 | 3526.31 | 0.98 | 1.90 0.08 | 565.01 | 0.99 | 0.51 0.06 | 883.45 | 1.20 | 1019.87 | 611.85 | 1.22 | 1186.30 | 434.20 | 1.25 | 1370.20 | 1.12 | |
| TILE_17 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3567.99 | 0.99 | 0.61 0.00 | 567.16 | 0.99 | 0.40 0.05 | 870.12 | 1.18 | 1063.53 | 623.20 | 1.25 | 1241.94 | 445.70 | 1.29 | 1423.67 | 1.13 | |
| p1 | 3553.06 | 0.99 | 0.63 0.01 | 566.95 | 0.99 | 0.42 0.10 | 809.58 | 1.10 | 1348.34 | 510.40 | 1.02 | 1678.43 | 353.48 | 1.02 | 1932.92 | 1.02 | |
| p2 | 3537.58 | 0.98 | 0.68 0.00 | 563.36 | 0.98 | 0.45 0.06 | 808.98 | 1.10 | 1310.08 | 558.48 | 1.12 | 1577.56 | 382.10 | 1.10 | 1799.13 | 1.06 | |
| TILE_18 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3574.45 | 0.99 | 2.65 0.32 | 566.01 | 0.99 | 0.49 0.10 | 892.35 | 1.22 | 996.74 | 635.05 | 1.27 | 1186.01 | 460.23 | 1.33 | 1349.47 | 1.15 | |
| p1 | 3571.87 | 0.99 | 1.89 0.15 | 563.63 | 0.99 | 0.70 0.19 | 826.12 | 1.13 | 1240.22 | 550.58 | 1.10 | 1519.92 | 375.15 | 1.08 | 1719.73 | 1.06 | |
| p2 | 3554.38 | 0.99 | 1.78 0.06 | 560.56 | 0.98 | 0.48 0.04 | 855.95 | 1.17 | 1104.23 | 608.35 | 1.22 | 1294.28 | 416.12 | 1.20 | 1497.54 | 1.10 | |
| TILE_19 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3565.15 | 0.99 | 2.09 0.11 | 573.13 | 1.00 | 0.72 0.18 | 833.17 | 1.13 | 1188.90 | 585.92 | 1.17 | 1398.93 | 422.62 | 1.22 | 1570.14 | 1.10 | |
| p1 | 3551.65 | 0.99 | 2.31 0.21 | 570.52 | 1.00 | 0.76 0.15 | 845.08 | 1.15 | 1189.05 | 568.38 | 1.14 | 1423.24 | 387.25 | 1.12 | 1627.20 | 1.08 | |
| p2 | 3531.18 | 0.98 | 2.22 0.20 | 566.60 | 0.99 | 0.61 0.16 | 828.50 | 1.13 | 1238.45 | 583.75 | 1.17 | 1445.08 | 404.10 | 1.17 | 1643.39 | 1.08 | |
| TILE_20 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3567.62 | 0.99 | 2.63 0.27 | 568.97 | 0.99 | 0.51 0.10 | 855.62 | 1.17 | 1148.37 | 604.38 | 1.21 | 1358.53 | 437.73 | 1.26 | 1537.38 | 1.12 | |
| p1 | 3557.37 | 0.99 | 1.75 0.05 | 566.90 | 0.99 | 0.45 0.14 | 853.98 | 1.16 | 1138.18 | 581.38 | 1.16 | 1354.88 | 392.48 | 1.13 | 1575.07 | 1.08 | |
| p2 | 3543.97 | 0.98 | 1.67 0.05 | 564.89 | 0.99 | 0.50 0.22 | 899.02 | 1.22 | 936.22 | 650.20 | 1.30 | 1089.74 | 455.00 | 1.31 | 1220.53 | 1.15 | |
| TILE_21 | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(nRTI MaxPctF) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | Actual | Ratio | QoS(ms) | GM | |
| p0 | 3575.67 | 0.99 | 0.96 0.03 | 568.07 | 0.99 | 0.66 0.20 | 888.60 | 1.21 | 971.35 | 639.83 | 1.28 | 1132.30 | 471.82 | 1.36 | 1256.52 | 1.16 | |
| p1 | 3560.02 | 0.99 | 0.68 0.00 | 565.46 | 0.99 | 0.50 0.06 | 891.33 | 1.21 | 995.40 | 613.12 | 1.23 | 1171.39 | 406.20 | 1.17 | 1297.33 | 1.11 | |
| p2 | 3537.37 | 0.98 | 0.85 0.03 | 562.36 | 0.98 | 0.67 0.11 | 805.02 | 1.10 | 1335.89 | 565.40 | 1.13 | 1564.26 | 400.20 | 1.15 | 1807.97 | 1.07 | |
| p0_score: | 24.25 | | | | | | | | | | | | | | | | |
| p1_score: | 23.89 | | | | | | | | | | | | | | | | |
| p2_score: | 23.94 | | | | | | | | | | | | | | | | |
| Infrastructure_Operations_Scores: | | | | | | | vMotion | | | SVMotion | | | XVMotion | | | Deploy | |
| Completed_Ops_PerHour | | | | | | | 28.00 | | | 26.00 | | | 21.00 | | | 10.50 | |

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|--|---------------------------------|-------|--------|------------------|
| Avg_Seconds_To_Complete | 7.44 | 88.99 | 103.85 | 298.66 |
| Failures | 0.00 | 0.00 | 0.00 | 0.00 |
| Ratio | 1.08 | 1.44 | 1.17 | 1.31 |
| Number_Of_Threads | 1 | 1 | 1 | 1 |
| Summary | Run_Is_Compliant | | | Turbo_Setting:0 |
| | Number_Of_Compliance_Issues(0)* | | | Median_Phase(p2) |
| Unreviewed_VMmark3_Applications_Score | 23.94 | | | |
| Unreviewed_VMmark3_Infrastructure_Score | 1.24 | | | |
| Unreviewed_VMmark3_Score | 19.40 | | | |

Configuration

| Virtualization Software | |
|---|---|
| Hypervisor Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY) | VMware ESXi 7.0 U2, Build 17502111 / 03-09-2021 |
| Datacenter Management Software Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY) | VMware vCenter Server 7.0.0d, Build 16749653 / 08-25-2020 |
| Supplemental Software | None |
| Servers | |
| Number of Servers in System Under Test (all subsequent fields in this section are per server) | 2 |
| Server Manufacturer and Model | Dell EMC PowerEdge R7525 |
| Processor Vendor and Model | AMD EPYC 7763 |
| Processor Speed (GHz) / Turbo Boost Speed (GHz) | 2.45 / 3.50 |
| Total Sockets/Total Cores/Total Threads | 2 Sockets / 128 Cores / 256 Threads |
| Primary CPU Cache | 32 KB I + 32 KB D on chip per core |
| Secondary CPU Cache | 512 KB I+D on chip per core |
| Other CPU Cache | 256 MB I+D on chip per chip, 32 MB shared / 8 cores |
| BIOS Version | 2.0.3 |

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| Memory Size (in GB, Number of DIMMs) | 2048, 32 |
| Memory Type and Speed | 64 GB 2Rx4 PC4-3200 |
| Disk Subsystem Type | FC SAN |
| Number of Disk Controllers | 1 |
| Disk Controller Vendors and Models | Dell BOSS-S1 |
| Total Number of Physical Disks for Hypervisor | 2 |
| Disk Vendors, Models, Capacities, and Speeds | Dell, SSDSCKKB480G8R, 480GB SSD, RAID 1 |
| Number of Host Bus Adapters | 1 |
| Host Bus Adapter Vendors and Models | QLE2692 Dual Port 16Gb FC Adapter |
| Number of Network Controllers | 2 |
| Network Controller Vendors and Models | Broadcom Gigabit Ethernet BCM5720 Mellanox ConnectX-5 Ex 100 GbE Adapter |
| Other Hardware | None |
| Other Software | None |
| Hardware Availability Date (MM-DD-YYYY) | 03-15-2021 |
| BIOS Availability Date (MM-DD-YYYY) | 02-10-2021 |
| Software Availability Date (MM-DD-YYYY) | 03-09-2021 |
| Network | |
| Network Switch Vendors and Models | Dell EMC Z9100-ON 10/25/40/50/100 GbE Switch |
| Network Speed | 1 x 1 Gbps for Management traffic 1 x 100 Gbps for vMotion traffic 1 x 100 Gbps for VM traffic |
| Primary Storage | |
| Storage Category | FC SAN |
| Storage Vendors, Models, and Firmware Versions | Dell EMC PowerMax 8000 |
| Storage Configuration Summary | <ul style="list-style-type: none"> • 2 x Volumes • 1 x 50TB LUN for VMs and Deploy Source • 1 x 1TB LUN for Infrastructure operations |

| Datacenter Management Server | |
|--|---|
| System Model | Dell EMC PowerEdge R7525 |
| Processor Vendor and Model | AMD EPYC 7402 |
| Processor Speed (GHz) | 2.8 |
| Total Sockets/Total Cores/Total Threads | 2 Sockets / 48 Cores / 96 Threads |
| Memory Size (in GB, Number of DIMMs) | 256, 16 |
| Network Controller(s) Vendors and Models | Mellanox ConnectX-6 100 GbE Dual-port |
| Operating System, Version, Bitness, and Service Pack | VMware ESXi 7.0 Build 15843807 |
| Virtual Center VM Number of vCPUs | 8 |
| Virtual Center VM Virtual Memory (in GB) | 28 |
| Virtual Center VM Operating System, Version, Bitness, and Service Pack | VMware vCenter Server 7.0.0d Build 16749653 |
| Other Hardware | None |
| Other Software | None |
| Clients | |
| Total Number of Virtual Clients / Virtual Client Hosts | 23 / 4 |
| System Model(s) | Dell EMC PowerEdge C6525 |
| Processor Vendor(s) and Model(s) | AMD EPYC 7702P |
| Processor Speed(s) (GHz) | 2.0 |
| Total Sockets/Total Cores/Total Threads | 1 Socket / 64 Cores / 128 Threads |
| Memory per Virtual Client Host | 512 GB |
| Network Controller(s) Vendors and Models | Broadcom Gigabit Ethernet BCM5720 Broadcom 25Gb Ethernet 57414 Mellanox ConnectX-5 100GbE |
| Virtual Client Networking Notes | vSwitch0 on vmnic0 for Management (1 Gbps) vSwitch3 on vmnic4 for VMs (100 Gbps) |
| Virtual Client Storage Notes | All Clients on a local 3.84TB NVMe AGN U.2 |
| Other Hardware | None |
| Other Software | VMware ESXi 6.7 P04, Build 17167734 |

| Security Mitigations | | | | | | |
|----------------------|-----------|--------------|----------------------------|-----------------|----------------|----------------|
| Vulnerability | CVE | Exploit Name | Public Vulnerability Name | Mitigated | | |
| | | | | Server Firmware | ESXi | Guest OS |
| Spectre | 2017-5753 | Variant 1 | Bounds Check Bypass | N/A | Not Vulnerable | Not Vulnerable |
| Spectre | 2017-5715 | Variant 2 | Branch Target Injection | Not Vulnerable | Not Vulnerable | Not Vulnerable |
| Meltdown | 2017-5754 | Variant 3 | Rogue Data Cache Load | N/A | Not Vulnerable | Not Vulnerable |
| Spectre-NG | 2018-3640 | Variant 3a | Rogue System Register Read | Not Vulnerable | N/A | N/A |
| Spectre-NG | 2018-3639 | Variant 4 | Speculative Store Bypass | N/A | Not Vulnerable | Not Vulnerable |
| Foreshadow | 2018-3615 | Variant 5 | L1 Terminal Fault - SGX | N/A | N/A | N/A |
| Foreshadow-NG | 2018-3620 | Variant 5 | L1 Terminal Fault - OS | N/A | N/A | Not Vulnerable |
| Foreshadow-NG | 2018-3646 | Variant 5 | L1 Terminal Fault - VMM | N/A | Not Vulnerable | N/A |

Notes for Workload

Template deployed with disk type: Thick Eager

Virtualization Software Notes

- vSphere DRS Migration Threshold level set to 1
- Logical CPU configuration changed for DS3DB and PrimeClient VMs to 1 socket with multiple cores (Default: Single core per socket)
- Logging disabled for all VMs (Default: Enabled)
- CDROM removed for all VMs (Default: Enabled)
- CPU and Memory shares set to high for all DS3DB VMs (Default: Normal)
- All Memory Reserved for DS3DB VMs (Default: Not reserved)
- sched.mem.pin set to TRUE for all DS3DB VMs (Default: FALSE)
- CPU shares set to Low for all Standby VMs (Default: Normal)
- Third virtual disk removed from DS3DB0 before cloning

Server Notes

Server BIOS Settings

- NUMA Nodes Per Socket set to 1

Networking Notes

vSwitch Configuration

- vSwitch0 on vmnic0 used for Management traffic (1 Gbps)
- vSwitch1 on vmnic2 used for VM traffic (100 Gbps)
- vSwitch2 on vmnic3 used for vMotion traffic (100 Gbps)

Storage Notes

Host OS installed on 2 x Dell 480GB SSD

Dell EMC PowerMax 8000

- Number of Directors: 2
- Dell EMC PowerMax OS 5978.479.479
- 2 LUNS used for VMmark
 - 1 x 50TB LUN for VMs and Deploy Source
 - 1 x 1TB LUN for Storage vMotion, XvMotion, and Deploy Infrastructure operations

Datacenter Management Server Notes

None

Operating System Notes

None

Software Notes

None

Client Notes

- /adv/Virsto/DedupSpaceReclaim = "2" (default 0)

Client Host Storage

- OS installed on 1 x Dell SSDSCKKB480G8R 480GB SSD

The Client VMs were distributed across the client hosts as follows:

- Client Host 1: Client0, Client4, Client8, Client12, Client16, Client20 and PrimeClient
- Client Host 2: Client1, Client5, Client9, Client13, Client17, Client21
- Client Host 3: Client2, Client6, Client10, Client14, Client18
- Client Host 4: Client3, Client7, Client11, Client15, Client19

Other Notes

Changes to VMmark3.properties file:

- TileDelay = 10 (Default: 60)
- ScrubConfigFile = true (Default: false)
- ErrorImmediate = true (Default: false)

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