

VMmark® 3.1.1 Results

Server Vendor & Model: Dell PowerEdge R760
Storage Vendor & Model: Dell PowerMax 8000
Hypervisor: VMware ESXi 8.0 Update 2, Build 22380479
Datacenter Management Software: VMware vCenter Server 8.0 Update 2a, Build 22617221

**VMmark 3.1.1 Score =
51.23 @ 55 Tiles**

Number of Hosts: 4

Uniform Hosts [yes/no]: yes

Total sockets/cores/threads in test: 8/512/1024

Tested By: Dell Technologies

Test Date: 02-12-2024

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Performance

	weathervane			weathervaneE			dvdstoreA			dvdstoreB			dvdstoreC			
TILE_0	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3577.15	0.99	0.37 0.00	566.29	0.99	0.50 0.18	868.23	1.18	958.97	621.48	1.24	1071.89	448.50	1.29	1187.60	1.13
p1	3564.96	0.99	0.42 0.00	559.74	0.98	0.39 0.13	906.85	1.23	865.50	648.95	1.30	988.45	447.30	1.29	1099.61	1.15
p2	3549.39	0.99	0.39 0.00	557.17	0.97	0.38 0.12	906.67	1.23	873.30	664.12	1.33	1008.08	485.88	1.40	1113.31	1.17
TILE_1	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3573.11	0.99	0.40 0.00	564.68	0.99	0.39 0.11	887.75	1.21	914.08	634.38	1.27	1029.83	461.82	1.33	1133.92	1.15
p1	3554.39	0.99	0.45 0.00	562.46	0.98	0.45 0.14	919.85	1.25	859.61	658.38	1.32	960.21	449.30	1.30	1105.75	1.16
p2	3545.78	0.99	0.47 0.00	558.31	0.98	0.37 0.11	917.17	1.25	860.10	674.65	1.35	977.36	492.18	1.42	1095.52	1.18
TILE_2	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3571.13	0.99	0.46 0.00	569.63	1.00	0.63 0.36	880.88	1.20	917.82	627.90	1.25	1036.79	459.23	1.32	1135.09	1.15
p1	3563.70	0.99	0.48 0.00	562.33	0.98	0.38 0.18	933.45	1.27	794.16	671.35	1.34	882.59	466.32	1.34	993.50	1.17
p2	3547.64	0.99	0.50 0.00	555.07	0.97	0.38 0.14	935.05	1.27	798.75	687.45	1.37	911.39	508.77	1.47	1007.76	1.20
TILE_3	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3562.42	0.99	0.59 0.00	566.78	0.99	0.48 0.24	826.98	1.13	1089.81	585.15	1.17	1231.89	404.23	1.17	1381.27	1.09
p1	3548.39	0.99	0.66 0.00	563.42	0.98	0.37 0.23	861.38	1.17	1020.12	601.90	1.20	1179.15	432.68	1.25	1323.51	1.11
p2	3540.26	0.98	0.63 0.00	563.60	0.99	0.43 0.19	864.12	1.18	1014.30	605.50	1.21	1161.52	434.18	1.25	1317.28	1.12
TILE_4	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3579.32	0.99	0.39 0.00	570.47	1.00	0.75 0.35	866.90	1.18	958.83	620.08	1.24	1066.89	453.40	1.31	1170.49	1.14
p1	3563.06	0.99	0.42 0.00	564.48	0.99	0.53 0.29	915.92	1.25	856.76	648.40	1.30	977.57	447.65	1.29	1098.80	1.15
p2	3546.18	0.99	0.42 0.00	557.26	0.97	0.38 0.18	902.52	1.23	885.10	641.62	1.28	1004.26	469.27	1.35	1109.46	1.15
TILE_5	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3569.04	0.99	0.46 0.00	569.75	1.00	0.62 0.32	885.80	1.21	892.15	616.62	1.23	979.76	451.60	1.30	1066.89	1.14
p1	3558.75	0.99	0.51 0.00	562.88	0.98	0.42 0.19	902.67	1.23	878.21	662.75	1.32	1011.47	466.05	1.34	1119.85	1.16

p2	3555.59	0.99	0.53 0.00	560.42	0.98	0.39 0.11	921.92	1.26	839.21	651.20	1.30	961.14	476.23	1.37	1066.78	1.17
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	3570.41	0.99	0.46 0.00	568.78	0.99	0.66 0.30	872.88	1.19	940.34	602.58	1.20	1050.78	434.75	1.25	1181.25	1.12
p1	3552.76	0.99	0.49 0.00	566.51	0.99	0.65 0.21	920.67	1.25	825.77	677.25	1.35	948.32	480.30	1.38	1034.67	1.18
p2	3543.37	0.98	0.48 0.00	566.03	0.99	0.70 0.26	915.33	1.25	841.00	655.67	1.31	938.08	476.38	1.37	1058.80	1.17
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	3578.53	0.99	0.58 0.00	565.87	0.99	0.28 0.09	858.85	1.17	983.18	595.50	1.19	1082.71	432.12	1.25	1175.77	1.11
p1	3560.28	0.99	0.60 0.00	559.62	0.98	0.45 0.30	892.62	1.22	915.27	654.25	1.31	1023.87	461.48	1.33	1142.60	1.15
p2	3528.97	0.98	0.66 0.00	558.65	0.98	0.44 0.13	888.27	1.21	932.41	623.92	1.25	1069.38	453.15	1.31	1194.72	1.14
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	3584.63	1.00	0.39 0.00	570.40	1.00	0.58 0.22	887.55	1.21	899.80	636.62	1.27	987.58	451.98	1.30	1069.95	1.15
p1	3560.46	0.99	0.44 0.00	569.41	1.00	0.59 0.26	903.02	1.23	874.38	663.15	1.32	991.16	473.62	1.37	1089.79	1.17
p2	3551.53	0.99	0.41 0.00	566.51	0.99	0.44 0.14	930.98	1.27	801.95	657.92	1.31	919.39	487.60	1.41	998.41	1.18
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	3580.29	1.00	0.38 0.00	573.00	1.00	0.67 0.29	879.12	1.20	920.91	630.08	1.26	1005.06	446.07	1.29	1099.43	1.14
p1	3568.43	0.99	0.42 0.00	572.35	1.00	0.79 0.45	893.08	1.22	895.31	658.55	1.32	1011.42	465.80	1.34	1110.36	1.16
p2	3550.41	0.99	0.44 0.00	566.03	0.99	0.63 0.33	921.48	1.25	830.55	646.12	1.29	967.23	450.32	1.30	1092.22	1.15
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	3583.52	1.00	0.48 0.00	572.32	1.00	0.63 0.25	903.70	1.23	846.83	650.15	1.30	928.61	443.27	1.28	988.45	1.15
p1	3568.60	0.99	0.46 0.00	571.03	1.00	0.65 0.32	923.45	1.26	820.80	684.35	1.37	911.94	507.43	1.46	1000.56	1.20
p2	3558.03	0.99	0.47 0.00	569.01	0.99	0.52 0.26	927.85	1.26	810.48	655.70	1.31	938.87	458.98	1.32	1040.91	1.17
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	3570.90	0.99	0.52 0.00	570.26	1.00	0.42 0.23	833.45	1.13	1058.55	585.08	1.17	1223.53	411.70	1.19	1326.20	1.09
p1	3554.67	0.99	0.61 0.00	562.64	0.98	0.46 0.18	852.08	1.16	1036.39	621.95	1.24	1167.94	436.38	1.26	1301.29	1.12
p2	3531.60	0.98	0.54 0.00	556.50	0.97	0.39 0.12	877.10	1.19	970.74	604.05	1.21	1165.88	416.05	1.20	1304.38	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	3569.43	0.99	0.46 0.00	560.60	0.98	0.39 0.09	886.58	1.21	903.45	636.52	1.27	991.29	428.65	1.24	1084.33	1.13
p1	3550.26	0.99	0.51 0.00	559.46	0.98	0.42 0.19	922.92	1.26	826.07	679.70	1.36	922.90	504.27	1.45	1016.15	1.19
p2	3542.33	0.98	0.49 0.00	555.83	0.97	0.37 0.15	930.45	1.27	798.18	664.70	1.33	908.27	469.05	1.35	993.30	1.17
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	3567.60	0.99	0.37 0.00	567.83	0.99	0.33 0.15	874.55	1.19	934.54	601.08	1.20	1044.68	422.12	1.22	1124.75	1.11
p1	3555.33	0.99	0.46 0.00	566.44	0.99	0.41 0.22	883.55	1.20	927.55	648.92	1.30	1042.40	485.57	1.40	1124.93	1.16
p2	3540.86	0.98	0.40 0.00	559.71	0.98	0.34 0.15	910.48	1.24	861.41	638.02	1.27	1013.31	444.25	1.28	1117.61	1.14
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	3574.96	0.99	0.70 0.00	566.95	0.99	0.49 0.15	871.00	1.19	946.14	620.58	1.24	1054.47	419.95	1.21	1153.79	1.12
p1	3555.88	0.99	0.72 0.00	565.12	0.99	0.42 0.11	914.12	1.24	835.74	678.85	1.36	933.80	504.15	1.45	1021.18	1.19
p2	3537.24	0.98	0.76 0.00	563.68	0.99	0.55 0.11	924.92	1.26	816.93	652.30	1.30	943.40	460.62	1.33	1042.53	1.16

TILE_15	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3566.15	0.99	0.89 0.01	564.56	0.99	0.59 0.28	849.70	1.16	1022.53	579.60	1.16	1156.74	418.77	1.21	1269.17	1.10
p1	3553.90	0.99	0.96 0.00	560.16	0.98	0.59 0.17	875.92	1.19	949.28	642.67	1.28	1070.13	474.50	1.37	1180.01	1.15
p2	3530.15	0.98	1.01 0.00	561.83	0.98	0.52 0.26	885.67	1.21	946.50	616.23	1.23	1111.77	422.85	1.22	1256.10	1.12
TILE_16	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.83	0.99	0.55 0.00	560.78	0.98	0.45 0.20	880.40	1.20	915.89	608.55	1.22	1015.46	445.45	1.28	1098.18	1.13
p1	3570.99	0.99	0.58 0.00	561.50	0.98	0.41 0.06	911.27	1.24	839.02	672.33	1.34	948.29	502.73	1.45	1039.14	1.19
p2	3554.42	0.99	0.61 0.00	559.45	0.98	0.55 0.15	933.20	1.27	798.92	660.48	1.32	928.26	462.93	1.33	1027.75	1.17
TILE_17	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3573.63	0.99	0.61 0.00	570.06	1.00	0.89 0.40	888.10	1.21	896.05	612.58	1.22	991.06	431.80	1.25	1056.22	1.13
p1	3568.94	0.99	0.67 0.00	562.44	0.98	0.53 0.14	905.65	1.23	870.64	663.33	1.33	985.06	493.27	1.42	1077.56	1.18
p2	3554.34	0.99	0.71 0.00	559.64	0.98	0.64 0.26	890.27	1.21	935.19	618.35	1.24	1090.93	432.90	1.25	1195.11	1.13
TILE_18	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3568.82	0.99	0.64 0.00	563.60	0.98	0.40 0.07	897.73	1.22	865.28	641.25	1.28	969.42	456.77	1.32	1027.17	1.15
p1	3545.13	0.99	0.65 0.00	558.93	0.98	0.41 0.09	914.70	1.25	846.30	674.10	1.35	945.18	478.15	1.38	1048.16	1.17
p2	3533.48	0.98	0.68 0.00	554.28	0.97	0.49 0.11	920.48	1.25	836.57	650.60	1.30	964.57	451.52	1.30	1068.27	1.15
TILE_19	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3576.57	0.99	0.69 0.00	570.82	1.00	0.96 0.57	843.40	1.15	1029.56	597.83	1.19	1154.08	418.18	1.21	1258.48	1.10
p1	3563.05	0.99	0.71 0.00	570.37	1.00	0.96 0.68	878.98	1.20	943.15	645.95	1.29	1043.19	451.25	1.30	1184.36	1.15
p2	3549.21	0.99	0.81 0.00	569.36	1.00	0.95 0.49	882.23	1.20	947.75	614.75	1.23	1104.86	424.75	1.22	1242.84	1.12
TILE_20	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3556.09	0.99	0.58 0.00	570.26	1.00	0.80 0.33	878.65	1.20	915.65	629.60	1.26	1012.73	442.75	1.28	1101.91	1.14
p1	3546.50	0.99	0.61 0.00	565.79	0.99	0.52 0.13	897.80	1.22	886.02	660.60	1.32	997.23	464.02	1.34	1120.38	1.16
p2	3533.12	0.98	0.66 0.00	562.18	0.98	0.53 0.13	927.45	1.26	820.73	654.65	1.31	933.07	458.12	1.32	1042.76	1.16
TILE_21	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3573.84	0.99	0.63 0.00	567.42	0.99	0.46 0.10	871.88	1.19	931.70	622.70	1.24	1037.01	440.60	1.27	1121.87	1.13
p1	3553.58	0.99	0.67 0.00	564.50	0.99	0.58 0.14	891.10	1.21	911.51	653.77	1.31	1025.61	458.95	1.32	1143.89	1.15
p2	3539.45	0.98	0.73 0.00	556.41	0.97	0.56 0.13	909.05	1.24	871.53	641.58	1.28	988.59	446.88	1.29	1104.55	1.14
TILE_22	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3568.82	0.99	0.69 0.00	567.58	0.99	0.55 0.15	879.65	1.20	910.02	635.27	1.27	992.14	449.35	1.30	1072.22	1.14
p1	3553.10	0.99	0.75 0.00	564.55	0.99	0.57 0.19	906.05	1.23	877.47	664.77	1.33	988.93	462.80	1.33	1122.22	1.16
p2	3540.65	0.98	0.77 0.00	556.05	0.97	0.57 0.16	907.15	1.24	873.75	640.92	1.28	982.26	444.23	1.28	1121.45	1.14
TILE_23	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3569.63	0.99	0.80 0.00	566.34	0.99	0.62 0.29	856.45	1.17	995.13	608.25	1.22	1102.68	427.12	1.23	1208.54	1.11
p1	3550.98	0.99	0.82 0.00	567.09	0.99	0.63 0.29	890.52	1.21	915.31	647.33	1.29	1050.31	457.10	1.32	1169.09	1.15
p2	3534.80	0.98	0.92 0.00	558.03	0.98	0.53 0.22	891.65	1.21	917.16	627.70	1.25	1058.79	431.43	1.24	1203.62	1.13
TILE_24	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM

p0	3571.06	0.99	0.60 0.00	566.43	0.99	0.49 0.10	879.27	1.20	919.23	625.40	1.25	1035.04	442.70	1.28	1125.13	1.13
p1	3557.21	0.99	0.61 0.00	565.62	0.99	0.56 0.23	898.98	1.22	898.64	654.20	1.31	1022.76	462.60	1.33	1124.33	1.16
p2	3540.36	0.98	0.66 0.00	557.96	0.98	0.52 0.12	923.50	1.26	827.38	656.05	1.31	935.97	457.00	1.32	1049.41	1.16
TILE_25	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3572.61	0.99	0.49 0.00	567.08	0.99	0.50 0.15	883.42	1.20	908.77	629.17	1.26	1012.44	469.62	1.35	1081.71	1.15
p1	3554.38	0.99	0.56 0.00	565.85	0.99	0.51 0.17	900.05	1.23	891.83	659.15	1.32	1020.42	463.98	1.34	1128.83	1.16
p2	3535.69	0.98	0.67 0.00	557.87	0.97	0.54 0.13	915.65	1.25	842.90	650.08	1.30	959.73	458.25	1.32	1050.65	1.15
TILE_26	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3568.58	0.99	0.57 0.00	567.94	0.99	0.54 0.18	883.55	1.20	895.84	633.45	1.27	1002.59	466.62	1.35	1083.64	1.15
p1	3557.70	0.99	0.65 0.00	565.79	0.99	0.60 0.16	900.42	1.23	891.50	638.40	1.28	1003.38	463.68	1.34	1121.75	1.15
p2	3539.30	0.98	0.65 0.00	557.68	0.97	0.58 0.16	903.05	1.23	877.80	640.55	1.28	1004.32	442.75	1.28	1134.07	1.14
TILE_27	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3568.78	0.99	0.86 0.00	567.58	0.99	0.58 0.28	844.33	1.15	1030.59	597.62	1.19	1173.90	432.43	1.25	1289.83	1.11
p1	3555.61	0.99	0.93 0.01	565.13	0.99	0.58 0.15	883.20	1.20	934.23	623.12	1.24	1069.51	449.65	1.30	1214.12	1.14
p2	3537.16	0.98	0.97 0.00	558.50	0.98	0.73 0.27	882.45	1.20	957.73	610.95	1.22	1119.58	422.70	1.22	1261.77	1.11
TILE_28	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3576.89	0.99	0.38 0.00	569.25	0.99	0.51 0.20	875.48	1.19	939.00	645.25	1.29	1040.92	459.75	1.33	1144.67	1.15
p1	3566.12	0.99	0.42 0.00	561.38	0.98	0.42 0.12	917.08	1.25	857.11	646.35	1.29	983.96	467.35	1.35	1097.94	1.16
p2	3555.18	0.99	0.41 0.00	557.86	0.97	0.33 0.13	920.52	1.25	831.10	657.25	1.31	950.71	453.55	1.31	1085.12	1.16
TILE_29	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3576.60	0.99	0.40 0.00	568.00	0.99	0.46 0.19	867.02	1.18	954.75	619.08	1.24	1068.72	455.55	1.31	1153.07	1.14
p1	3570.11	0.99	0.41 0.00	561.99	0.98	0.36 0.17	900.60	1.23	885.93	639.15	1.28	1007.13	463.62	1.34	1127.56	1.15
p2	3552.92	0.99	0.40 0.00	558.24	0.98	0.43 0.17	903.83	1.23	872.35	647.05	1.29	979.03	447.27	1.29	1094.62	1.15
TILE_30	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.26	0.99	0.45 0.00	567.84	0.99	0.49 0.14	883.50	1.20	914.06	654.05	1.31	1025.39	463.18	1.34	1125.26	1.16
p1	3564.57	0.99	0.45 0.00	561.81	0.98	0.32 0.11	910.05	1.24	882.82	634.90	1.27	1020.99	463.95	1.34	1123.65	1.15
p2	3553.00	0.99	0.47 0.00	559.20	0.98	0.33 0.13	909.08	1.24	879.88	637.23	1.27	1021.32	443.25	1.28	1122.99	1.14
TILE_31	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.23	0.99	0.60 0.04	567.42	0.99	0.60 0.39	843.55	1.15	1036.30	621.80	1.24	1163.08	434.60	1.25	1286.51	1.12
p1	3568.38	0.99	0.67 0.00	561.23	0.98	0.53 0.29	869.33	1.18	995.39	604.05	1.21	1159.27	437.80	1.26	1296.70	1.12
p2	3548.07	0.99	0.65 0.00	557.23	0.97	0.44 0.31	895.08	1.22	919.65	626.62	1.25	1075.52	432.43	1.25	1215.62	1.13
TILE_32	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3577.94	0.99	0.40 0.00	567.62	0.99	0.57 0.25	870.85	1.19	944.22	647.33	1.29	1037.88	453.25	1.31	1167.38	1.15
p1	3566.70	0.99	0.41 0.00	561.70	0.98	0.40 0.13	920.00	1.25	839.74	644.62	1.29	981.34	467.23	1.35	1106.97	1.16
p2	3550.76	0.99	0.40 0.00	556.70	0.97	0.40 0.12	919.65	1.25	845.93	652.88	1.30	969.98	450.00	1.30	1086.67	1.15
TILE_33	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3578.15	0.99	0.35 0.00	568.83	0.99	0.52 0.21	869.62	1.18	948.41	649.30	1.30	1032.96	479.80	1.38	1136.43	1.16

p1	3567.57	0.99	0.40 0.00	561.73	0.98	0.45 0.18	903.80	1.23	880.83	631.05	1.26	1033.09	435.10	1.25	1166.70	1.14
p2	3551.68	0.99	0.49 0.00	558.94	0.98	0.47 0.18	902.95	1.23	880.00	642.42	1.28	993.96	468.23	1.35	1103.17	1.15
TILE_34	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3570.15	0.99	0.45 0.00	568.15	0.99	0.56 0.27	871.55	1.19	942.36	641.77	1.28	1067.88	473.10	1.36	1168.42	1.15
p1	3565.23	0.99	0.46 0.00	561.81	0.98	0.39 0.18	939.67	1.28	780.38	669.27	1.34	880.55	469.35	1.35	984.73	1.18
p2	3551.95	0.99	0.47 0.00	557.70	0.97	0.39 0.16	941.02	1.28	791.93	671.02	1.34	885.46	487.25	1.40	1000.88	1.18
TILE_35	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.46	0.99	0.61 0.00	569.96	1.00	0.73 0.49	844.00	1.15	1034.64	619.92	1.24	1149.15	452.50	1.30	1281.60	1.13
p1	3568.60	0.99	0.71 0.00	560.34	0.98	0.44 0.20	889.77	1.21	922.37	626.73	1.25	1066.12	432.05	1.25	1204.32	1.13
p2	3548.23	0.99	0.65 0.00	558.53	0.98	0.46 0.24	879.90	1.20	972.42	613.23	1.23	1117.99	444.38	1.28	1245.30	1.13
TILE_36	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3573.67	0.99	0.36 0.00	566.87	0.99	0.46 0.18	860.62	1.17	983.35	634.00	1.27	1096.81	466.73	1.35	1210.63	1.14
p1	3565.22	0.99	0.35 0.00	561.67	0.98	0.36 0.08	914.88	1.25	860.64	645.80	1.29	978.38	444.05	1.28	1117.47	1.15
p2	3558.19	0.99	0.37 0.00	557.19	0.97	0.39 0.13	905.55	1.23	886.13	641.10	1.28	1000.06	464.45	1.34	1132.41	1.15
TILE_37	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3580.66	1.00	0.38 0.00	568.31	0.99	0.47 0.21	876.58	1.19	928.54	642.27	1.28	1040.45	480.00	1.38	1127.97	1.16
p1	3574.14	0.99	0.39 0.00	560.54	0.98	0.40 0.09	908.05	1.24	871.79	634.00	1.27	1017.29	441.77	1.27	1140.48	1.14
p2	3557.38	0.99	0.38 0.00	557.81	0.97	0.45 0.25	874.98	1.19	972.11	631.95	1.26	1127.49	445.80	1.29	1227.67	1.13
TILE_38	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.49	0.99	0.44 0.00	570.42	1.00	0.59 0.19	874.95	1.19	934.75	639.35	1.28	1052.58	475.57	1.37	1153.24	1.16
p1	3564.42	0.99	0.48 0.00	561.28	0.98	0.35 0.10	934.58	1.27	801.32	659.30	1.32	928.63	460.43	1.33	1030.39	1.17
p2	3550.38	0.99	0.49 0.00	557.61	0.97	0.32 0.04	928.02	1.26	813.79	677.90	1.35	931.01	480.50	1.39	1022.81	1.18
TILE_39	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3574.04	0.99	0.64 0.00	568.81	0.99	0.48 0.32	853.17	1.16	1006.04	621.08	1.24	1134.19	456.45	1.32	1245.58	1.13
p1	3564.65	0.99	0.70 0.00	560.44	0.98	0.55 0.20	892.05	1.21	920.28	596.67	1.19	1098.82	425.75	1.23	1225.45	1.12
p2	3552.50	0.99	0.70 0.00	555.84	0.97	0.50 0.22	881.33	1.20	955.19	638.17	1.28	1090.63	448.05	1.29	1210.12	1.14
TILE_40	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3579.00	0.99	0.36 0.00	569.87	1.00	0.62 0.25	886.17	1.21	903.63	645.38	1.29	1036.85	474.32	1.37	1152.91	1.16
p1	3568.17	0.99	0.39 0.00	559.74	0.98	0.39 0.15	931.65	1.27	818.28	657.40	1.31	930.59	454.50	1.31	1070.55	1.16
p2	3555.91	0.99	0.37 0.00	557.91	0.98	0.31 0.11	923.35	1.26	827.27	681.38	1.36	924.51	481.95	1.39	1026.49	1.18
TILE_41	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3581.53	1.00	0.36 0.00	569.54	1.00	0.46 0.08	858.65	1.17	980.50	630.30	1.26	1089.53	466.52	1.35	1199.60	1.14
p1	3568.32	0.99	0.45 0.00	562.23	0.98	0.49 0.23	904.50	1.23	878.00	631.88	1.26	1031.25	416.45	1.20	1167.90	1.13
p2	3559.63	0.99	0.40 0.00	559.99	0.98	0.48 0.17	900.38	1.23	892.88	651.02	1.30	1040.65	481.48	1.39	1146.13	1.16
TILE_42	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3574.07	0.99	0.41 0.00	570.56	1.00	0.74 0.39	890.92	1.21	890.64	653.27	1.31	998.85	489.38	1.41	1071.88	1.17
p1	3567.53	0.99	0.40 0.00	562.25	0.98	0.35 0.13	919.85	1.25	846.51	649.77	1.30	968.09	447.88	1.29	1102.03	1.15

p2	3552.97	0.99	0.42 0.00	557.53	0.97	0.38 0.12	910.27	1.24	863.28	666.00	1.33	983.76	472.27	1.36	1081.55	1.17
TILE_43	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3573.11	0.99	0.58 0.00	567.86	0.99	0.58 0.47	850.45	1.16	1010.54	615.40	1.23	1158.24	454.45	1.31	1283.68	1.13
p1	3561.08	0.99	0.64 0.00	560.00	0.98	0.49 0.24	888.02	1.21	938.55	616.75	1.23	1098.17	402.45	1.16	1251.04	1.11
p2	3548.73	0.99	0.66 0.00	556.65	0.97	0.47 0.21	875.58	1.19	971.78	632.23	1.26	1121.45	462.15	1.33	1254.44	1.14
TILE_44	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3578.14	0.99	0.35 0.00	568.62	0.99	0.52 0.23	868.52	1.18	971.97	627.65	1.25	1107.38	464.98	1.34	1207.75	1.14
p1	3570.58	0.99	0.40 0.00	560.98	0.98	0.31 0.06	911.98	1.24	861.14	637.52	1.27	1001.88	443.65	1.28	1138.19	1.15
p2	3554.49	0.99	0.37 0.00	557.59	0.97	0.37 0.09	900.17	1.23	896.89	657.77	1.31	1014.56	463.30	1.34	1133.41	1.16
TILE_45	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.66	0.99	0.39 0.00	569.54	1.00	0.72 0.40	881.85	1.20	917.22	639.50	1.28	1047.62	458.77	1.32	1129.81	1.15
p1	3568.47	0.99	0.46 0.00	561.51	0.98	0.50 0.19	906.80	1.23	881.89	634.45	1.27	1012.19	445.18	1.28	1121.39	1.14
p2	3555.04	0.99	0.46 0.00	556.24	0.97	0.38 0.14	911.45	1.24	859.67	660.23	1.32	996.16	486.23	1.40	1101.06	1.17
TILE_46	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3582.36	1.00	0.36 0.00	568.90	0.99	0.50 0.16	897.08	1.22	859.91	659.12	1.32	973.73	475.02	1.37	1025.38	1.17
p1	3563.35	0.99	0.38 0.00	561.13	0.98	0.45 0.20	927.67	1.26	820.92	654.17	1.31	936.89	461.77	1.33	1032.69	1.16
p2	3554.52	0.99	0.37 0.00	558.06	0.98	0.40 0.17	914.77	1.25	845.54	670.45	1.34	966.73	495.20	1.43	1074.73	1.18
TILE_47	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.65	0.99	0.61 0.00	569.32	1.00	0.54 0.38	849.62	1.16	1017.68	618.08	1.23	1152.74	455.02	1.31	1263.28	1.13
p1	3561.19	0.99	0.69 0.00	559.54	0.98	0.56 0.37	883.70	1.20	948.70	617.85	1.23	1092.71	405.73	1.17	1238.23	1.11
p2	3554.61	0.99	0.64 0.00	556.70	0.97	0.46 0.29	872.88	1.19	972.85	636.73	1.27	1110.82	464.38	1.34	1232.38	1.14
TILE_48	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3574.89	0.99	0.35 0.00	567.45	0.99	0.50 0.28	891.30	1.21	896.48	649.33	1.30	1012.15	466.77	1.35	1084.24	1.16
p1	3570.70	0.99	0.37 0.00	562.31	0.98	0.42 0.06	943.00	1.28	768.98	674.65	1.35	866.89	469.38	1.35	984.87	1.18
p2	3558.50	0.99	0.36 0.00	557.05	0.97	0.29 0.10	932.42	1.27	799.63	684.52	1.37	915.37	507.98	1.46	996.26	1.20
TILE_49	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3574.32	0.99	0.34 0.00	569.11	0.99	0.54 0.20	881.70	1.20	913.95	645.17	1.29	1026.83	462.35	1.33	1115.47	1.15
p1	3570.41	0.99	0.40 0.00	562.11	0.98	0.48 0.20	911.20	1.24	859.84	641.58	1.28	986.04	443.55	1.28	1126.74	1.15
p2	3555.51	0.99	0.42 0.00	556.38	0.97	0.43 0.19	909.67	1.24	855.22	669.33	1.34	958.16	496.38	1.43	1060.29	1.18
TILE_50	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3577.87	0.99	0.41 0.00	567.99	0.99	0.54 0.28	897.05	1.22	870.05	659.80	1.32	977.84	473.35	1.36	1056.07	1.17
p1	3565.42	0.99	0.37 0.00	561.72	0.98	0.41 0.21	925.08	1.26	824.67	656.38	1.31	928.08	457.10	1.32	1039.42	1.16
p2	3551.28	0.99	0.40 0.00	557.34	0.97	0.36 0.09	914.70	1.25	857.93	665.48	1.33	972.94	496.85	1.43	1064.57	1.18
TILE_51	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(nRTI MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3574.23	0.99	0.50 0.00	567.70	0.99	0.52 0.29	833.30	1.13	1075.39	604.25	1.21	1214.97	422.38	1.22	1362.15	1.10
p1	3572.71	0.99	0.56 0.00	560.42	0.98	0.53 0.29	868.35	1.18	999.32	581.40	1.16	1164.63	414.57	1.20	1309.06	1.10
p2	3555.67	0.99	0.54 0.00	558.14	0.98	0.48 0.21	863.65	1.18	1011.00	625.15	1.25	1157.06	435.38	1.26	1305.24	1.12

TILE_52	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3577.72	0.99	0.38 0.00	570.16	1.00	0.64 0.27	892.58	1.22	880.76	655.77	1.31	1001.42	466.12	1.34	1093.65	1.16
p1	3566.04	0.99	0.38 0.00	561.04	0.98	0.36 0.15	947.10	1.29	767.27	649.73	1.30	877.44	471.50	1.36	965.16	1.17
p2	3551.66	0.99	0.40 0.00	558.10	0.98	0.42 0.15	931.90	1.27	803.27	710.73	1.42	902.82	505.48	1.46	1012.45	1.20
TILE_53	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3574.97	0.99	0.34 0.00	569.89	1.00	0.71 0.41	859.95	1.17	980.58	627.62	1.25	1105.52	444.25	1.28	1226.69	1.13
p1	3571.78	0.99	0.39 0.00	561.36	0.98	0.41 0.16	895.30	1.22	903.38	604.00	1.21	1059.98	437.48	1.26	1173.15	1.13
p2	3555.31	0.99	0.41 0.00	557.04	0.97	0.46 0.25	891.70	1.21	925.75	670.10	1.34	1050.31	475.27	1.37	1184.66	1.16
TILE_54	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(nRTIMaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3575.13	0.99	0.44 0.00	566.26	0.99	0.53 0.23	873.92	1.19	948.77	633.73	1.27	1086.58	450.80	1.30	1178.78	1.14
p1	3568.52	0.99	0.45 0.00	560.04	0.98	0.41 0.12	923.10	1.26	834.15	627.30	1.25	968.52	451.45	1.30	1076.21	1.15
p2	3556.08	0.99	0.46 0.00	557.05	0.97	0.34 0.12	912.38	1.24	857.23	693.30	1.39	962.42	492.12	1.42	1081.90	1.19
p0_score:	62.56															
p1_score:	63.43															
p2_score:	63.52															

Infrastructure_Operations_Scores:	vMotion	SVMotion	XVMotion	Deploy
Completed_Ops_PerHour	57.00	50.00	40.00	20.00
Avg_Seconds_To_Complete	5.24	93.58	117.90	330.58
Failures	0.00	0.00	0.00	0.00
Ratio	2.19	2.78	2.22	2.50
Number_Of_Threads	2	2	2	2

Summary	Run_Is_Compliant	Turbo_Setting:0
	Number_Of_Compliance_Issues(0)*	Median_Phase(p1)
Unreviewed_VMmark3_Applications_Score	63.43	
Unreviewed_VMmark3_Infrastructure_Score	2.41	
Unreviewed_VMmark3_Score	51.23	

Configuration

Virtualization Software	
Hypervisor Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware ESXi 8.0 Update 2, Build 22380479 / 09-21-2023
Datacenter Management Software Vendor, Product, Version, and Build /	VMware vCenter Server 8.0 Update 2a, Build 22617221 / 10-26-2023

Availability Date (MM-DD-YYYY)	
Supplemental Software	None
Servers	
Number of Servers in System Under Test (all subsequent fields in this section are per server)	4
Server Manufacturer and Model	Dell PowerEdge R760
Processor Vendor and Model	Intel Xeon Platinum 8592+
Processor Speed (GHz) / Turbo Boost Speed (GHz)	1.90 / 3.90
Total Sockets/Total Cores/Total Threads	2 Sockets / 128 Cores / 256 Threads
Primary CPU Cache	32 KB I + 48KB D on chip per core
Secondary CPU Cache	2 MB I+D on chip per core
Other CPU Cache	320 MB I+D on chip per chip
BIOS Version	2.1.2
Memory Size (in GB, Number of DIMMs)	2048,16
Memory Type and Speed	128GB 4Rx4 DDR5 5600 MT/s 3DS RDIMMs
Disk Subsystem Type	FC SAN
Number of Disk Controllers	1
Disk Controller Vendors and Models	Dell BOSS-N1 Monolithic
Total Number of Physical Disks for Hypervisor	2
Disk Vendors, Models, Capacities, and Speeds	Dell NVMe PE8010 RI M.2 480GB - RAID 1
Number of Host Bus Adapters	1
Host Bus Adapter Vendors and Models	Emulex LPe36002-M64-D 2-Port 64Gb Fibre Channel Adapter
Number of Network Controllers	1
Network Controller Vendors and Models	Mellanox ConnectX-6 Dx Dual Port 100 GbE QSFP56 Adapter
Other Hardware	None
Other Software	None
Hardware Availability Date (MM-DD-YYYY)	02-05-2024
BIOS Availability Date (MM-DD-YYYY)	03-11-2024

Software Availability Date (MM-DD-YYYY)	09-21-2023
Network	
Network Switch Vendors and Models	1xDell EMC Z9432F-ON switch
Network Speed	<ul style="list-style-type: none"> • 1x100Gbps for Management and vMotion • 1x100Gbps for all workload VMs
Primary Storage	
Storage Category	FC-SAN
Storage Vendors, Models, and Firmware Versions	Dell PowerMax 8000
Storage Configuration Summary	FC-SAN Switch 1 x Connectrix DS6620B 32 Gb FC Switch <ul style="list-style-type: none"> • 55x1TB for each of the Tiles • 2TB for Deploy Operations • 4x2TB for svMotion and xvMotion • 2x5TB for DS3WebA and Standby VMs • 1x1TB for template
Datacenter Management Server	
System Model	Dell PowerEdge R7625
Processor Vendor and Model	AMD EPYC 9554
Processor Speed (GHz)	3.1
Total Sockets/Total Cores/Total Threads	2 Sockets / 128 Cores / 256 Threads
Memory Size (in GB, Number of DIMMs)	1536, 24
Network Controller(s) Vendors and Models	Broadcom BCM57508 2x100G QSFP PCIE
Operating System, Version, Bitness, and Service Pack	VMware ESXi 8.0 Update 2 Build 22380479
Virtual Center VM Number of vCPUs	8
Virtual Center VM Virtual Memory (in GB)	30
Virtual Center VM Operating System, Version, Bitness, and Service Pack	VMware vCenter Server 8.0 Update 2a, Build 22617221
Other Hardware	None
Other Software	None
Clients	
Total Number of Virtual Clients / Virtual Client	56 / 4

Hosts	
System Model(s)	4 x Dell PowerEdge R7625
Processor Vendor(s) and Model(s)	AMD EPYC 9554
Processor Speed(s) (GHz)	3.1GHz
Total Sockets/Total Cores/Total Threads	2 Sockets/128 Cores/256 Threads
Memory per Virtual Client Host	1536 GB
Network Controller(s) Vendors and Models	Broadcom BCM57508 2x100G QSFP PCIE
Virtual Client Networking Notes	vSwitch0 for Management and Client VMs at 100Gbps
Virtual Client Storage Notes	All Virtual Clients are stored on local server storage
Other Hardware	None
Other Software	None

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	Yes	Yes
Spectre	2017-5715	Variant 2	Branch Target Injection	Yes	Yes	Yes
Meltdown	2017-5754	Variant 3	Rogue Data Cache Load	N/A	Yes	Yes
Spectre-NG	2018-3640	Variant 3a	Rogue System Register Read	Yes	N/A	N/A
Spectre-NG	2018-3639	Variant 4	Speculative Store Bypass	N/A	Yes	Yes
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	Yes
Foreshadow-NG	2018-3646	Variant 5	L1 Terminal Fault - VMM	N/A	Yes	N/A

Notes for Workload

Template deployed with disk type: Thin

Virtualization Software Notes

- Logical CPU configuration changed for all multi-CPU VMs to 1 socket with multiple cores (default single core per socket)
- CPU shares set to high for all DS3DB, ElasticDB and ElasticLB VMs (default normal)
- Memory shares set to high for all DS3DB VMs (default normal)
- CDROM removed from all VMs except Prime Client, client and template VMs
- All memory reserved for DS3DB VMs (default non-reserved)
- CPU shares set to low for all Standby VMs (default normal)
- vSphere DRS Migration Threshold set to Fully Automated level 2

- sched.mem.pin set to TRUE for all DS3DB VMs (default False)
- Third virtual disk removed from DS3DB0 before cloning DS3DB VMs for other tiles
- vSphere DRS Advanced Option AggressiveCPUActive set to 1
- Logging disabled for all VMs except PrimeClient and template VMs (default enabled)
- sched.mem.lpage.enable1GPage was set True for DS3DB (default false)
- Prime Client's second virtual disk configured to be 1.2TB (default 200GB)

SUT Advanced Settings:

- Cpu.CreditAgePeriod = 1000 (default 3000)
- Cpu.CoschedCrossCall = 0 (default 1)
- Cpu.HTWholeCoreThreshold = 0 (default 800)
- DataMover.HardwareAcceleratedInit = 0 (default 1)
- DataMover.HardwareAcceleratedMove = 0 (default 1)
- Disk.IdleCredit = 64 (default 32)
- Disk.ReqCallThreshold = 1 (default 8)
- Mem.CtlMaxPercent = 0 (default 65)
- Mem.ShareScanGHz = 0 (default 4)
- Numa.LTermFairnessInterval = 0 (default 5)
- Numa.LargeInterleve = 0 (default 1)
- Numa.LocalityWeightActionAffinity = 0 (default 130)
- Numa.MigImbalanceThreshold = 57 (default 10)
- Numa.MigPreventLTermThresh = 20 (default 0)
- Numa.MigThreshold = 0 (default 2)
- Numa.MonMigEnable = 0 (default 1)
- Numa.PageMigEnable = 0 (default 1)
- Numa.RebalancePeriod = 60000 (default 2000)
- Numa.SwapLoadEnable = 0 (default 1)
- Numa.SwapLocalityEnable = 0 (default 1)
- VMkernel.Boot.hyperthreadingMitigation = true (default false)
- UserVars.HostClientCEIPOptIn = 2 (default 0)
- Power.CpuPolicy = High Performance (default Balanced)
- Numa.PreferHT = 1 (default 0)
- UserVars.SuppressShellWarning = 1 (default 0)

Server Notes

Server BIOS Settings:

- Fan speed Offset = Maximum (default off)
- Optimizer mode = Enabled (default Auto)
- Sub-Numa Node = 2 Way Clustering (default disabled)
- System Profile Settings = Custom (default Performance Per Watt (DAPC))
- Memory Patrol Scrub = disabled (default enabled)

Networking Notes

SUT cluster - vSwitch Configuration

- vSwitch0 for Management, vMotion vmnic4 at 100Gbps
- vSwitch1 for all workload VMs on vmnic5 at 100Gbps
- All vSwitches, vmnic4, vmnic5, vmk0 and vmk1 have MTU set to 9000 (default 1500)

Storage Notes

SUT - OS installed on Dell NVMe PE8010 RI M.2 480GB - RAID 1

Dell PowerMax 8000

- Number of Directors:2
- Dell PowerMax OS 5978.479.479
- Single Default Storage Resource Pool(SRP) with 2x Disk Groups (factory pre-configured)
 - Disk Group 1:9x750 GB Intel SSDs configured in RAID 5(7+1) with one spare drive (Usable Capacity 4880.9 GiB)
 - Disk Group 2:25x7.68 TB Samsung NVMe drives configured in RAID 5(7+1) with one spare drive (Usable Capacity 150217.6 GiB)
- Following User Defined Storage Groups were created using the TDEVs
 - 55x1TB for each of the Tiles
 - 2TB for Deploy Operations
 - 4x2TB for svMotion and xvMotion
 - 2x5TB for DS3WebA and Standby VMs
 - 1x1TB for template
- Round Robin IOPS limit set to 1 for all FC LUNS (default:1000)

Datacenter Management Server Notes

None

Operating System Notes

The SUT hosts used Dell customized ESXi 8.0 Update 2 ISO (VMware-VMvisor-Installer-8.0.0.update02-22380479.x86_64-Dell_Customized-A00.iso)for OS installation

Software Notes

None

Client Notes

Client Host Advanced Settings:

- UserVars.HostClientCEIPOptIn = 1 (default 0)
- UserVars.SuppressShellWarning = 1 (default 0)

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

- Client11:Client0 - Client13
- Client12:Client14 - Cient 27, VMware vCenter Server and Prime Client
- Client13:Client28 - Client41
- Client14:Client42 - Client54

Client cluster - vSwitch Configuration

- vSwitch0 for Management, Prime Client and all client VMs on vmnic0 and vmnic1 at 100Gbps
- All vSwitches, vmnic0, vmnic1, vmk0 and vmk1 have MTU set to 9000 (default 1500)

Other Notes

Changes to VMmark3.properties file:

- TileDelay=5 (default 60)
- StafMaxThreads was set to 100

The PrimeClient VM STAF.cfg was modified as follows:

- "CONNECTTIMEOUT=10000" was added as follows:

"interface ssl library STAFTCP option Secure=Yes option CONNECTTIMEOUT=10000 option Port=6550"

- "SET CONNECTATTEMPTS 5 CONNECTRETRYDELAY 2s" was added as a new line to STAF.cfg

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