# VMmark<sup>®</sup> 3.1.1 Results

Server Vendor & Model: Dell PowerEdge R7515 Storage Vendor & Model: Dell PowerMax 8000 Hypervisor: VMware ESXi 7.0 U2a, Build 17867351

Datacenter Management Software: VMware vCenter Server 7.0 U1c Build 17327586

VMmark 3.1.1 Server PPKW Score = 8.1263 @ 12 Tiles

Number of Hosts: 2	Uniform Host	es [yes/no]: yes	Total sockets/cores/threads in test: 2/128/256		
Tested By: Dell Technologies		Test Date: 09-14-2022			
Performance Section  Performance		uration Section onfiguration	Notes Section Notes for Workload		

## Performance

		we	eathervane		W	eathervaneE		dvdstore	A		dvdstor	eB		dvdstor	·eC	
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	3578.89	0.99	1.01   0.01	567.50	0.99	0.65   0.37	938.38	1.28	829.38	681.60	1.36	968.30	499.35	1.44	1084.36	1.20
p1	3568.98	0.99	1.00   0.01	566.13	0.99	0.54   0.19	960.85	1.31	781.27	666.50	1.33	935.92	462.50	1.33	1064.30	1.18
p2	3559.71	0.99	1.01   0.01	562.76	0.98	0.52   0.28	949.25	1.29	805.67	687.98	1.37	934.34	482.27	1.39	1058.45	1.19
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	3572.86	0.99	2.46   0.18	563.39	0.98	0.56   0.25	993.23	1.35	693.31	724.20	1.45	804.49	536.52	1.55	898.73	1.24
<b>p1</b>	3563.57	0.99	1.99   0.11	558.05	0.98	0.43   0.16	1000.83	1.36	681.20	706.55	1.41	797.61	467.32	1.35	910.97	1.20
p2	3537.99	0.98	2.22   0.07	554.32	0.97	0.43   0.11	990.90	1.35	693.86	729.23	1.46	791.93	536.17	1.55	900.19	1.24
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	3570.96	0.99	1.00   0.00	568.55	0.99	0.78   0.34	951.20	1.30	803.72	663.05	1.32	950.49	483.88	1.40	1057.67	1.19
p1	3553.04	0.99	1.04   0.00	563.57	0.98	0.41   0.09	963.17	1.31	771.92	672.52	1.34	909.62	469.10	1.35	1011.45	1.18
p2	3539.92	0.98	1.03   0.01	562.30	0.98	0.60   0.35	943.45	1.28	819.71	683.60	1.37	958.81	500.90	1.44	1077.53	1.20
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	3576.66	0.99	1.15   0.03	564.11	0.99	0.48   0.24	1003.05	1.37	670.14	706.60	1.41	796.00	519.62	1.50	882.91	1.23
<b>p1</b>	3566.15	0.99	1.13   0.02	563.77	0.99	0.43   0.15	1008.23	1.37	669.85	712.62	1.42	787.49	494.60	1.43	901.27	1.22
p2	3554.19	0.99	1.17   0.02	559.14	0.98	0.56   0.23	998.23	1.36	680.73	734.77	1.47	782.51	541.05	1.56	883.88	1.25
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
<b>p0</b>	3570.85	0.99	1.01   0.01	561.59	0.98	0.50   0.17	969.15	1.32	749.93	679.02	1.36	886.79	475.65	1.37	983.22	1.19
p1	3562.53	0.99	1.05   0.00	559.38	0.98	0.55   0.19	954.02	1.30	789.72	698.05	1.39	911.80	491.05	1.42	1019.95	1.20
p2	3547.57	0.99	0.99   0.00	558.61	0.98	0.47   0.18	957.23	1.30	792.17	662.60	1.32	943.44	487.12	1.40	1047.73	1.18
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	3566.33	0.99	1.15   0.06	572.86	1.00	0.78   0.29	1018.00	1.39	643.82	717.23	1.43	759.13	502.10	1.45	848.97	1.23
p1	3544.96	0.99	1.07   0.01	571.60	1.00	0.90   0.51	1001.52	1.36	669.79	739.17	1.48	760.51	523.83	1.51	848.70	1.25

p2	3530.67	0.98	1.08   0.02	567.11	0.99	0.50   0.22	1007.85	1.37	658.02	711.92	1.42	763.29	500.10	1.44	855.42	1.22
TILE_6	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3570.95	0.99	0.99   0.01	565.83	0.99	0.73   0.42	962.62	1.31	773.20	650.83	1.30	910.97	467.65	1.35	1033.08	1.18
p1	3551.59	0.99	0.95   0.00	560.45	0.98	0.56   0.24	952.73	1.30	796.07	692.05	1.38	922.37	507.30	1.46	1041.31	1.20
p2	3538.48	0.98	1.00   0.00	556.30	0.97	0.47   0.26	968.65	1.32	755.10	679.92	1.36	892.01	469.07	1.35	1010.93	1.18
TILE_7	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3569.25	0.99	1.03   0.03	573.44	1.00	0.87   0.55	935.50	1.27	858.50	646.05	1.29	1023.54	446.02	1.29	1164.41	1.16
p1	3551.94	0.99	1.02   0.02	571.24	1.00	0.79   0.55	926.17	1.26	877.35	665.05	1.33	1032.45	484.45	1.40	1157.83	1.18
p2	3527.96	0.98	0.98   0.01	569.35	1.00	0.56   0.46	939.85	1.28	845.48	650.30	1.30	1003.96	425.12	1.23	1145.69	1.15
TILE_8	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3573.09	0.99	0.99   0.00	568.33	0.99	0.62   0.34	948.12	1.29	809.65	687.60	1.37	948.02	481.85	1.39	1068.90	1.19
p1	3559.08	0.99	0.94   0.00	562.24	0.98	0.53   0.23	952.67	1.30	808.86	659.45	1.32	957.25	480.35	1.39	1069.71	1.18
p2	3545.38	0.99	0.90   0.00	562.55	0.98	0.47   0.18	961.05	1.31	789.24	667.98	1.33	937.06	461.60	1.33	1061.32	1.18
TILE_9	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3578.40	0.99	1.69   0.06	567.42	0.99	0.95   0.56	997.05	1.36	672.81	736.20	1.47	772.71	524.98	1.51	850.96	1.24
p1	3557.72	0.99	1.64   0.06	566.23	0.99	0.68   0.39	1001.15	1.36	672.57	707.70	1.41	779.74	522.38	1.51	858.41	1.23
p2	3550.79	0.99	1.57   0.09	560.94	0.98	0.44   0.12	1000.35	1.36	670.45	704.73	1.41	792.86	498.27	1.44	868.83	1.22
TILE_10	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3572.89	0.99	1.04   0.00	571.70	1.00	0.82   0.46	940.88	1.28	831.71	705.35	1.41	962.76	499.62	1.44	1091.14	1.21
p1	3559.11	0.99	1.06   0.00	567.32	0.99	0.59   0.26	962.12	1.31	781.62	641.33	1.28	938.83	459.60	1.33	1067.02	1.17
p2	3540.77	0.98	1.05   0.00	564.38	0.99	0.47   0.16	951.73	1.30	814.47	686.60	1.37	948.01	480.02	1.38	1090.02	1.19
TILE_11	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(nRT MaxPctF)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	Actual	Ratio	QoS(ms)	GM
p0	3564.44	0.99	2.40   0.24	561.88	0.98	0.50   0.23	994.20	1.35	686.04	729.88	1.46	783.98	541.10	1.56	866.16	1.25
p1	3541.78	0.98	2.22   0.14	562.09	0.98	0.54   0.22	1000.15	1.36	680.05	700.33	1.40	807.01	490.15	1.41	913.33	1.21
p2	3523.01	0.98	2.00   0.08	559.13	0.98	0.55   0.25	993.20	1.35	681.85	732.50	1.46	784.77	515.50	1.49	890.14	1.23

 p0\_score:
 14.51

 p1\_score:
 14.41

 p2\_score:
 14.42

Infrastructure_Operations_Scores:	vMotion	SVMotion	XVMotion	Deploy
Completed_Ops_PerHour	28.50	27.00	22.00	11.50
Avg_Seconds_To_Complete	5.66	81.17	97.74	281.38
Failures	0.00	0.00	0.00	0.00
Ratio	1.10	1.50	1.22	1.44
Number_Of_Threads	1	1	1	1

PTD_Summary:	]
Number_of_PTD_Daemons	1
Number_of_PTD_Phases	3

PTD_Phase_Timing	2400secs							
PtdTiming:	ptd0	]						
p0	0	]						
p1	0	]						
p2	0							
PTD_Results:								
p0	Target	Avg_Watts		Avg_Volts	Avg_Amps	Avg_PF	Samples	UnCert%
ptd0	SERVER	1452.00		204.63	7.18	0.99	2399.00	0.00
p1	Target	Avg_Watts		Avg_Volts	Avg_Amps	Avg_PF	Samples	UnCert%
ptd0	SERVER	1452.01		204.63	7.18	0.99	2400.00	0.00
p2	Target	Avg_Watts		Avg_Volts	Avg_Amps	Avg_PF	Samples	UnCert%
ptd0	SERVER	1451.96		204.63	7.18	0.99	2400.00	0.00
Summary			Run_Is_	_Compliant			Turbo_Setting:0	
			Number_Of_Compliance_Issues(0)*				Median_Phase(p2)	
Unreviewed_VMmark3_Avg_	Watts		1451.96	)				
Unreviewed_VMmark3_Applications_Score			14.42					
Unreviewed_VMmark3_Infrastructure_Score			1.30					
Unreviewed_VMmark3_Score			11.80					
Unreviewed_VMmark3_PP	KW		8.1263					

# Configuration

PTD Configuration						
Number of Power Meters	1					
Power Meter Vendors and Models	Yokogawa WT210					
Power Meter PTD Target(s) (SERVER/EXT_STOR)	SERVER					
Power Meter Connection Type(s) (Eth/GPIB/Serial/USB)	Serial					
Power Meter Calibration Date(s) (MM-DD-YYYY)	10-12-2021					
Power Meter Calibration Info (Calibrated By/Duration)	Tescom / one year/ 91JB09482					
Power Meter(s) Volt/Amp Range	300 / 10					
Power Source Voltage/Frequency/Phase	208V / 60Hz / 3-phase					
	PTD Client Configuration					
Number of Power Meter Clients	1					
System Model(s)	PrimeClient, details in client configuration section					
Processor Vendor(s) and Model(s)	PrimeClient, details in client configuration section					
Processor Speed(s) (GHz)	PrimeClient, details in client configuration section					
Total Sockets/Total Cores/Total Threads	PrimeClient, details in client configuration section					
Memory Per Power Meter Client	PrimeClient, details in client configuration section					

Network Controller(s) Vendors and Models	PrimeClient, details in client configuration section
Operating System, Version, and Service Pack	PrimeClient, details in client configuration section
Other Hardware	1x Future Technology Devices International, Ltd FT232 USB-Serial converter
Other Software	None

# Configuration

Virtualization Software						
Hypervisor Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware ESXi 7.0 U2a, Build 17867351 / 04-29-2021					
Datacenter Management Software Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware vCenter Server 7.0 U1c Build 17327586 / 12-17-2020					
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 PowerEdge R7515					
Processor Vendor and Model	AMD EPYC 7763					
Processor Speed (GHz) / Turbo Boost Speed (GHz)	2.45 / 3.5					
Total Sockets/Total Cores/Total Threads	1 Sockets / 64 Cores / 128 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	2.6.6					
Memory Size (in GB, Number of DIMMs)	1024,16					
Memory Type and Speed	64 GB 2Rx4 DDR4-3200					
Disk Subsystem Type	FC SAN					
Number of Disk Controllers						
Disk Controller Vendors and Models	Dell HBA330 Mini(Embedded)					
Total Number of Physical Disks for Hypervisor						
Disk Vendors, Models, Capacities, and Speeds	Dell, MTFDDAK480TDN, 480GB SSD					
Number of Host Bus Adapters						
Host Bus Adapter Vendors and Models	QLogic QLE2772					
Number of Network Controllers	2					
Network Controller Vendors and Models	2x Mellanox ConnectX-5 Ex 100 GbE Dual-port					
Other Hardware	None					
Other Software	None					

Hardware Availability Date (MM-DD-YYYY)	03-15-2021							
BIOS Availability Date (MM-DD-YYYY)	01-13-2022							
Software Availability Date (MM-DD-YYYY)	te (MM-DD-YYYY) 04-29-2021							
	Network							
Network Switch Vendors and Models	1x Dell PowerSwitch Z9100-ON 100GbE Switch							
Network Speed	1 x 100Gbps for vMotion Traffic							
Network Speed	1 x 100Gbps for VM traffic							
Primary Storage								
Storage Category	FC SAN							
Storage Vendors, Models, and Firmware Versions	Dell PowerMax 8000							
<ul> <li>1x 50TB LUN for all VMs other than the DS3DB, AuctionNoSQL, AuctionDB, AuctionLB, ElasticDB and ElasticLB VMs</li> <li>1x 20TB LUN for DS3DB VMs</li> <li>1x 22TB LUN for AuctionNoSQL VMs</li> <li>1x 2TB LUN for AuctionDB VMs</li> <li>1x 4TB LUN for AuctionLB VMs</li> <li>1x 3TB LUN for ElasticDB VMs</li> <li>1x 3TB LUN for ElasticDB VMs</li> <li>1x 3TB LUN for ElasticLB VMs</li> <li>1x 1TB LUN for Deploy operations</li> <li>1x 1TB LUN for Storage vMotion and XVmotion operations</li> </ul>								
	Datacenter Management Server							
System Model		Dell PowerEdge R7525						
Processor Vendor and Model		AMD EPYC 7763						
Processor Speed (GHz)		2.45 /3.50						
Total Sockets/Total Cores/Total Threads		2 Sockets/ 128 Cores/ 256 Threads						
Memory Size (in GB, Number of DIMMs)		2048, 32						
Network Controller(s) Vendors and Models		2 x Mellanox ConnectX-5 Ex 100 GbE Dual-port						
Operating System, Version, Bitness, and Service Pack		VMware ESXi 7.0 U2a, Build 17867351						
Virtual Center VM Number of vCPUs		4						
Virtual Center VM Virtual Memory (in GB)		19						
Virtual Center VM Operating System, Version, Bitness, and Ser	vice Pack	VMware vCenter Server 7.0 U1c Build 17327586						
Other Hardware		None						
Other Software		None						
	Clients							
Total Number of Virtual Clients / Virtual Client Hosts	13 / 2							
System Model(s)	2x Dell PowerEdge R7525							
Processor Vendor(s) and Model(s)	Client-Host1: AMD EPYC 7763 Client-Host2: AMD EPYC 7763							
Processor Speed(s) (GHz)	Client-Host1: 2.45 GHz Client-Host2: 2.45 GHz							
Total Sockets/Total Cores/Total Threads	Client-Host1: 2 Sockets / 128 Cores / 256 Threads Client-Host2: 2 Sockets / 128 Cores / 256 Threads							
Memory per Virtual Client Host	Client-Host1: 2048 GB							

	Client-Host2: 2048 GB
Network Controller(s) Vendors and Models	Client-Host1:1x Mellanox ConnectX-5 Ex 100 GbE Dual-port Client-Host2:1x Mellanox ConnectX-5 Ex 100 GbE Dual-port
Virtual Client Networking Notes	vSwitch0 on vmnic2 for VMs and Management (100Gbps) vSwitch2 on vmnic3 for vMotion (100Gbps)
Virtual Client Storage Notes	All Virtual Clients storage on PowerMax 8000 FC SAN storage and used the same FC storage LUNs as SUT hosts
Other Hardware	None
Other Software	All client hosts used VMware ESXi 7.0 U2a Build 17867351 for operating system

V-1	CNE	Ela:4 Naa	D., L. 12 - XV., L.,, L. 2124 N	Mitigated				
Vulnerability	CVE	Exploit Name	Public Vulnerability Name	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 all multi-CPU VMs except for PrimeClient to 1 socket with multiple cores (default: Single core per socket)
- Logging disabled for all VMs except for the template VMs (default: Enabled)
- CPU and Memory shares set to high for all DS3DB, ElasticDB, and ElasticLB VMs (default: Normal)
- CDROM removed from all VMs except for PrimeClient, and template VMs (default: Present)
- All memory reserved for DS3DB VMs (default: Non-reserved)
- sched.mem.pin set to TRUE for all DS3DB VMs (default: FALSE)
- sched.mem.lpage.enable1GPage 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 DS3DB VMs for other tiles

### **Advanced Settings**

- /adv/Cpu/HTWholeCoreThreshold=0 (default:800)
- /adv/Numa/LocalityWeightActionAffinity=0 (default:130)
- /adv/Mem/ShareScanGHz=0 (default:4)
- /vmkernel/hyperthreadingMitigation = TRUE (default FALSE)
- /adv/UserVars/SuppressShellWarning=1 (default:0)

• /adv/UserVars/HostClientCEIPOptIn=1 (default:0)

#### **Server Notes**

### **Server BIOS Settings**

- L2 Stream HW Prefetcher disabled (default: Enabled)
- L2 Up Down Prefetcher disabled (default: Enabled)

## **Networking Notes**

- vSwitch0 on vmnic2 for Management and VMs (100Gbps)
  - vSwitch0 and vmnic2 MTU set to 9000 (default:1500)
  - vmk0 under portgroup Management Network has MTU set to 1500 (default:1500)
- vSwitch3 on vmnic3 for vMotion (100Gbps)
  - vSwitch3 and vmnic3 MTU set to 9000 (default:1500)
  - vmk2 under portgroup vMotion has MTU set to 9000 (default:1500)

## **Storage Notes**

Host OS installed on Dell, MTFDDAK480TDN, 480GB SSD Each SUT had 10 unused 1.6TB Dell Express Flash NVMe PCIe SSD PM1725b

#### Dell PowerMax 8000

- Number of Directors:2
- Dell PowerMax OS 5978.479.479
- 1x 50TB LUN for all VMs other than the DS3DB, AuctionNoSQL, AuctionDB, AuctionLB, ElasticDB and ElasticLB VMs
- 1x 20TB LUN for DS3DB VMs
- 1x 22TB LUN for AuctionNoSQL VMs
- 1x 2TB LUN for AuctionDB VMs
- 1x 4TB LUN for AuctionLB VMs
- 1x 3TB LUN for ElasticDB VMs
- 1x 3TB LUN for ElasticLB VMs
- 1x 1TB LUN for Deploy operations
- 1x 1TB LUN for Storage vMotion and XVmotion operations
- Round Robin IOPS limit set to 1 (default:1000)

## **Datacenter Management Server Notes**

None

## **Operating System Notes**

SUT hosts used Dell customized ESXi 7.0 U2 ISO (VMware-VMvisor-Installer-7.0.0.update02-17867351.x86\_64-DellEMC\_customized-A04.iso) for OS installation.

#### **Software Notes**

None

### **Client Notes**

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

- Client-Host1: Client2, Client4, Client6, Client8, Client10, VMware vCenter Server
- Client-Host2: Client0, Client1, Client3, Client5, Client7, Client9, Client11, PrimeClient

#### Client host advanced settings:

- /adv/Cpu/CreditAgePeriod = 1000 (default 3000)
- /adv/Cpu/HTWholeCoreThreshold = 0 (default 800)
- /adv/DataMover/HardwareAcceleratedInit = 0 (default 1)
- /adv/DataMover/HardwareAcceleratedMove = 0 (default 1)
- /adv/Disk/IdleCredit = 64 (default 32)
- /adv/Disk/ReqCallThreshold = 1 (default 8)
- /adv/Mem/CtlMaxPercent = 0 (default 65)
- /adv/Mem/ShareScanGHz = 0 (default 4)
- /adv/Numa/LocalityWeightActionAffinity=0 (default:130)
- /adv/Numa/LTermFairnessInterval = 0 (default 5)
- /adv/Numa/PageMigEnable = 0 (default 1)
- /adv/Numa/RebalancePeriod = 60000 (default 2000)
- /adv/Numa/RebalanceEnable = 0 (default 1)
- /adv/Numa/SwapLoadEnable = 0 (default 1)
- /adv/Numa/SwapLocalityEnable = 0 (default 1)
- /vmkernel/hyperthreadingMitigation = TRUE (default FALSE)
- /adv/VMFS3/HardwareAcceleratedLocking = 0 (default 1)
- /adv/UserVars/HostClientShowOnlyRecentObjects not set on Client-Host1, 0 on Client-Host2 (default 1)
- /adv/UserVars/HostClientCEIPOptIn = 1(default:0)
- /adv/UserVars/SuppressShellWarning = 1(default:0)

#### Client host vSwitch settings:

- vSwitch0 on vmnic2 for VMs and Management (100Gbps)
  - vSwitch0 and vmnic2 MTU set to 9000 (default:1500)
- vSwitch2 on vmnic3 for vMotion (100Gbps)
  - vSwitch2 and vmnic3 MTU set to 9000 (default:1500)

#### **Other Notes**

Changes to VMmark3.properties file:

- TileDelay=30 (default:60)
- VCscratchDir=/root/VMmark3/results/scratch (default: /root/VMmark3/samples)

This is a full disclosure report for a VMmark® benchmark result. All published VMmark results must be from fully-compliant tests for which a full disclosure report is publicly available.

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