

Figure 2

	EXISTING HS1 & HS2 CLUSTER	PDS HPE (Gen11)	PDS HPE Quote (Gen12)	Dell Quote	Thinkmate Supermicro	Insight Lenovo
Cost		\$134,558.85	\$186,289.32	\$148,965.96	\$135,567.00	\$117,954.20
Make	HPE	HPE	HPE	Dell	Supermicro	Lenovo
Model	ProLiant DL380 Gen10	ProLiant DL380 Gen11	ProLiant DL380 Gen12	PowerEdge R760	RAX XT24-22S3	
Number of hosts	2	3	3	3	3	2
	Vmware vSphere + StarWind	Proxmox + Ceph	Proxmox + Ceph	Proxmox + Ceph	Proxmox + Ceph	Proxmox + Storage Array
Processor	Intel Xeon Silver 4114	Intel Xeon Silver 4516Y+	Intel Xeon 6520P (6 series)	Intel® Xeon® Gold 6548N	Xeon Scalable 3rd Gen	Intel Xeon 6507P
Processor Speed	2.20GHz	2.20GHz	2.4GHz	2.8GHz		2.1 3.5GHz
Processor Sockets		2	2	2	2	2
Processor Cores		10	24	24	32	24
Processor Threads		20	48	48	64	48
Processor Total Cores		20	48	48	64	48
Processor Total Threads		40	96	96	128	96
RAM Type	DDR4	DDR5 - 5600	DDR5 - 6400	DDR5 - 5600	DDR4	DDR5 - 4800
RAM DIMM Size	32GB	32GB	32GB	64GB	32GB	32GB
RAM DIMM Quantity		20	24	24	16	16
RAM	640GB	768GB	768GB	512GB	512GB	768GB
Storage Adapter	HPE P408i-a SR Gen10	HPE MR416i-p Gen 11 (P47777-B21) HPE MR416i-o Gen 11 (P47781-B21)	HPE MR416i-p Gen 11	Dell HBA465i (405-BBCR)	Broadcom HBA 9500	N/A
Network Adapter 1	Qlogic 57810 10GbE 2-port	HPE NVIDIA / Mellanox 10/25GbE 2-port SFP28 SMF (2-port) (P42044-B21)	HPE NVIDIA / Mellanox 10/25GbE 2-port SFP28 SMF (2-port) (P42044-B21)	Nvidia ConnectX-6 Lx Dual Port 10/25GbE	Intel 25GbE E810 2-port	Broadcom 57504 10/25GbE SFP28 4-Port OCP
Network Adapter 2	Intel X710/X557-AT 10GbE 4-port	Intel X710-t 10GbE 4-port	Broadcom BCM57412 10GbE 2-port SFP+	Intel X710-T4L 10GbE Quad Port *Low Profile	Intel 10GbE X710-T4L 2-port	Broadcom 57414 10/25GbE SFP28 2-port
Network Adapter 3	HP FlexFabric 10Gb 2-port	Intel X710-t 10GbE 4-port Broadcom BCM5719 1GbE 4-port (P51181-B21)	Not quoted	Broadcom 5720 1GBE 2-port	Intel i350 2-port	N/A
Network Adapter 4	HPE 331i 1GbE 4-port		Broadcom BCM5719 1GbE 4-port (P26253-B21)	Intel X710-T4L Quad Port 10GbE BASE-T	Intel 10GbE X710-T4L 2-port	Not quoted
PSU Quantity	2	2	2	2	2	2
PSU Wattage	800W	1000W	1000W	1400W	1600W	1300W
Boot Drive	2x 960 NVMe RAID1 11x 2.4TB HDD 3x 480GB SSD	2x 480GB NVMe RAID1 (P48183 B21)	2x 480GB NVMe RAID1 (P48183 B21)	2x 480GB NVMe RAID1 (P48183 BCRU)	2x 480GB SSD	2x 960 NVMe RAID1
Storage Drives	8x 1.92TB SSD	24 x NVMe PCIe 3.2TB SSD Drive (P65015-B21)	24 x 3.8TB NVMe Drive (B21)	(P64846- 24 x 24G SAS 3.2TB SSD FIPS Drive (345-BHQZ)	24 x 3.8TB SATA SSD Drive	8 x 15.36TB NVMe
Storage Cluster Total	43TB	76TB	91TB	76TB	91TB	122.88TB
Storage Cluster Safe Management	27TB	50TB	60TB	50TB	60TB	65.9TB
Support	iLO Advanced 24x7 1 YR+	iLO Advanced 24x7 3 YR+	iLO Advanced 24x7 3 YR+	iDRAC Enterprise 24x7 3 YR+ NBD On-site	Out-of-band 3 YR+ Parts NBD	Yes 24x7 3 YR 4hr + Install
Note 1	Does not include HS3 host.			Core count on the 6548N would increase Windows datacenter licensing.	DDR4 and 3rd Gen Xeon at a higher price than competitors	Insight provided and alternative solution with an all-flash array separate of the host's compute. Unfortunately we would need 2 array's to make this option viable adding an additional \$71,555.43.
Note 2				Dell was not able to quote the 4516Y+ processor. Other processor options were limited by Dell's PSUs.	Drives operate at SATA. SAS was the minimum spec.	Insight did not respond to our request for a 3-host hyper converged solution for Proxmox + Ceph. We did reach out to ISG/Lenovo but did not receive a response in time.
Note 3				Did not quote 8 10GbE ports as requested.		