

Titan T5000 Support Matrix



DELL Technologies Unity Family
380F/480F/680F/880F
380/480/680/880
350F/450F/550F/650F
300F/400F/500F/600F
300/400/500/600
UnityVSA
Simple Support Matrix
May 30, 2022

Host Servers/ Adapters: All host systems are supported where the host vendor allows the host/OS/adapter combination. All Fibre Channel HBAs branded as Emulex , or QLogic with line speeds 8 Gb/s, 16 Gb/s or 32 Gb/s, including vendor rebranded versions of the same are supported. AIX and HP-UX vendor branded HBAs, also support the 4Gb/s FC link speed. 10 or 25 GbE Cisco, Emulex, or QLogic CNAs (10GbE, 25GbE, iSCSI, FCoE via FC-gateway), including vendor rebranded versions of the same are supported. 10 or 25 GbE NICs for iSCSI connectivity as supported by the server and OS vendor are supported. Following allowances for Firmware/BIOS, Drivers, and for specific Platforms: Any Dell EMC or vendor-supplied firmware/BIOS that meets the ESM minimum version for specified OS platform are allowed (Newer versions of the Firmware/BIOS higher than the minimum version are allowed). For Solaris, HP-UX and AIX platforms, Dell EMC only supports the Driver/Firmware/BIOS versions supplied by the OS Vendor. For CNA (HBA) drivers refer to ELN, <https://elabnavigator.dell.com>, for supported versions. For Linux Drivers not listed in the ESM refer to the 'Linux Out of Kernel Drivers Support (LoS)'. If systems meet these criteria, no further ELN connectivity validation or RPQ is required.

Switches:

- For non-Dell Networking switches, all Switch models and associated Switch Firmware Revisions listed in the following Switch tables are supported unless otherwise noted. See <https://elabnavigator.emc.com> -> Simple Support Matrices -> Connectivity:

[Blade Chassis Switch Module Stand-Alone Switch](#)

- For Dell Networking, all Switch models and associated Switch Firmware Revisions listed in the following Switch table is supported unless otherwise noted. See <https://elabnavigator.emc.com> -> Simple Support Matrices -> Connectivity:

[Networking Switch](#)

- For Dell EMC Switch interoperability, all associated Switch Firmware Revisions, Switch Management Software and other interop settings; See [Advanced Query Wizard](#): Category/Switch/Sub-Category/All Switched Fabric Topology Parameters Table.

- All Dell EMC approved FCoE and iSCSI switches are supported as IP stand-alone ethernet switches.

Operating Environment: Unity OE 4.0, 4.0.1, 4.1, 4.1.1, 4.1.2, 4.2, 4.2.1, 4.3, 4.3.1, 4.4, 4.4.1, 4.5, 4.5.1, 5.0, 5.1, 5.2 (As of OE 5.0, all released service packs for Unity/UnityXT OE are supported unless otherwise specified by a footnote)

Note : UnityXT (models) arrays are not supported with HP-UX PowerPath.

Note: Tables 2 Through 17 contain additional support information on Backup applications supported, Limits and more.

Note: The information in this ESSM is a configuration summary. The versions listed in the columns represent versions that work with the listed Platform/Operating Systems and Storage Array. Versions listed in the columns for each specific Platform/Operation System may not be interoperable. For more detailed information, refer to the Advanced Query section on the ELN home page at <https://elabnavigator.emc.com>.

Dell EMC® E-Lab™ qualified versions for EMC Unity®

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscalle/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscalle/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
1	Citrix Systems Inc. Citrix Hypervisor [x86_64] 8.2,Citrix Systems Inc. XenServer [x86_64] 7.1				XenServer HA		
2	HPE HP-UX 11i v2 (HP-UX 11.23)	5.2 P06 - 5.2 P07	DMP , HP PV Links				10g RAC Release 1, 10g RAC Release 2, 11g RAC Release 1
3	HPE HP-UX 11i v3 (HP-UX 11.31)	5.2 P06 - 5.2 P07	DMP , HP PV Links , HP-UX Native MPIO	5.1 SP1 - 6.1	MC/Service Guard 11.20	Cluster Server (VCS) 5.1 SP1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.1, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0 for Oracle RAC, Storage Foundation 6.0.1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC	10g RAC Release 1, 10g RAC Release 2, 11g RAC Release 1, 11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
4	HPE OpenVMS V8.4		VMS Native Multipathing		VMS Cluster License only		
5	IBM AIX 7.1	6.4 - 7.0 P02	AIX-MPIO , DMP	5.1 SP1 - 7.4.2	PowerHA 7.2, PowerHA 7.2.1, PowerHA 7.2.2, PowerHA 7.2.3, PowerHA 7.2.4, PowerHA 7.2.5	Cluster Server (VCS) 5.1 SP1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.1, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2, Cluster Server (VCS) 6.2.1, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0 for Oracle RAC, Storage Foundation 6.0.1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2
6	IBM AIX 7.2	6.4 - 7.0 P02	AIX-MPIO , DMP	7.1 - 7.4.2	PowerHA 7.2, PowerHA 7.2.1, PowerHA 7.2.2, PowerHA 7.2.3, PowerHA 7.2.4, PowerHA 7.2.5	Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
7	IBM VIOS 3.1.0.0,IBM VIOS 3.1.0.10,IBM VIOS 3.1.0.11,IBM VIOS 3.1.0.20,IBM VIOS 3.1.0.21,IBM VIOS 3.1.0.30,IBM VIOS 3.1.1.0,IBM VIOS 3.1.1.10,IBM VIOS 3.1.3.0,IBM VIOS 3.1.3.10,IBM VIOS 3.1.3.14	6.4 - 7.0 P02	AIX-MPIO				

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscail/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscail/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
8	Microsoft Windows Server 2012	6.5 - 7.1	DMP , MPIO Framework [default DSM]	6.0.2 - 7.4.2	Failover Clustering	Cluster Server (VCS) 6.1, Storage Foundation HA 6.0.2 for Windows, Storage Foundation HA 6.1, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, SteelEye LifeKeeper for Windows v7.6.0, SteelEye LifeKeeper for Windows v7.7.0, SteelEye LifeKeeper for Windows v8.0.0, SteelEye LifeKeeper for Windows v8.0.1, SteelEye LifeKeeper for Windows v8.1.0, SteelEye LifeKeeper for Windows v8.2.0
9	Microsoft Windows Server 2012 R2	6.5 - 7.1	DMP , MPIO Framework [default DSM]	6.1.0 - 7.4.2	Failover Clustering	Cluster Server (VCS) 6.1, Storage Foundation HA 6.1, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , ClusterPro X 3.2, ClusterPro X 3.3, SteelEye LifeKeeper for Windows v8.1.0, SteelEye LifeKeeper for Windows v8.2.0
10	Microsoft Windows Server 2016	6.5 - 7.1	MPIO Framework [default DSM]	7.2 - 7.4.2	Failover Clustering	Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	12c RAC Release 2, 18c RAC , 19c RAC
11	Microsoft Windows Server 2019	6.5 - 7.1	MPIO Framework [default DSM]		Failover Clustering		19c RAC
12	Microsoft Windows Server 2022	7.1	MPIO Framework [default DSM]		Failover Clustering		
13	Microsoft Windows Storage Server 2012 ,Microsoft Windows Storage Server 2012 R2					Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.3.1	
14	Oracle Linux OL 7.x [x86_64] UEK UEK R3 U6 [3.8.13-98] (EOSL),Oracle Linux OL 7.x [x86_64] UEK UEK R4 U1[4.1.12-37],Oracle Linux OL 7.x [x86_64] UEK UEK R4 U2 [4.1.12-61]						11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
15	Oracle Linux OL 7.x [x86_64] UEK UEK R4 U4 [4.1.12-94]	6.5 - 7.3					11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
16	Oracle Linux OL 7.x [x86_64] UEK UEK R4 U5 [4.1.12-103]						11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
17	Oracle Linux OL 7.x [x86_64] UEK UEK R4 U6 [4.1.12-112]	6.5 - 7.3					11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
18	Oracle Linux OL 7.x [x86_64] UEK UEK R4 U7 [4.1.12-124]	6.5 - 7.3					12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
19	Oracle Linux OL 7.x [x86_64] UEK UEK R4 [4.1.12-32]						11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
20	Oracle Linux OL 7.x [x86_64] UEK UEK R5 U1 [4.14.35.1844]	6.5 - 7.4					12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
21	Oracle Linux OL 7.x [x86_64] UEK UEK R5 U2 [4.14.35-1902]	7.0 - 7.4					12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
22	Oracle Linux OL 7.x [x86_64] UEK UEK R5 U3 [4.14.35-1902.30*],Oracle Linux OL 7.x [x86_64] UEK UEK R5 U4 [4.14.35-2025.40*]	7.1 - 7.4					19c RAC
23	Oracle Linux OL 7.x [x86_64] UEK UEK R5 U5 [4.14.35-2047.500]	7.1 - 7.4					
24	Oracle Linux OL 7.x [x86_64] UEK UEK R5 [4.14.35.1818]	6.5 - 7.4					12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
25	Oracle Linux OL 7.x [x86_64] UEK UEK R6 U1 [5.4.17-2036],Oracle Linux OL 7.x [x86_64] UEK UEK R6 U2 [5.4.17-2102]	7.2 - 7.4					
26	Oracle Linux OL 7.x [x86_64] UEK UEK R6 U3 [5.4.17-2136]	7.4					
27	Oracle Linux OL 7.x [x86_64] UEK UEK R6 [5.4.17-2011]	7.2 - 7.4					19c RAC
28	Oracle Linux OL 8.x [x86_64] UEK UEK R6 U1 [5.4.17-2036],Oracle Linux OL 8.x [x86_64] UEK UEK R6 U2 [5.4.17-2102]	7.2 - 7.4					
29	Oracle Linux OL 8.x [x86_64] UEK UEK R6 U3 [5.4.17-2136]	7.4					
30	Oracle Linux OL 8.x [x86_64] UEK UEK R6 [5.4.17-2011]	7.2 - 7.4					19c RAC

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscate/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscale/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
40	Oracle Solaris 11.4 SPARC	6.0 P04	DMP , MPxIO	7.4.1 - 7.4.2	Solaris Cluster 4.4	Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	19c RAC
41	Oracle Solaris 11.4 x86	6.0 P04	MPxIO		Solaris Cluster 4.4		19c RAC
42	Red Hat RHEL [32-Bit] 6.0		DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0	ClusterPro X 3.0, ClusterPro X 3.1, ClusterPro X 3.2
43	Red Hat RHEL [32-Bit] 6.1, Red Hat RHEL [32-Bit] 6.2, Red Hat RHEL [32-Bit] 6.3		DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0	ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v8.1.1, SteelEye LifeKeeper for Linux v8.1.2, SteelEye LifeKeeper for Linux v8.1.3
44	Red Hat RHEL [32-Bit] 6.4		DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0	ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v8.1.2, SteelEye LifeKeeper for Linux v8.1.3
45	Red Hat RHEL [32-Bit] 6.5		DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0	ClusterPro X 3.1, ClusterPro X 3.2
46	Red Hat RHEL [x86_64] 6.0 (EOL)		DM-MPIO	5.1 SP1	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation Cluster File System for Oracle RAC 5.1 SP1	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC, ClusterPro X 3.0, ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v7.3, SteelEye LifeKeeper for Linux v7.5
47	Red Hat RHEL [x86_64] 6.1 (EOL)		DM-MPIO , DMP	5.1 SP1 - 6.0.5	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.1, Cluster Server (VCS) 6.0.2, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0 for Oracle RAC, Storage Foundation 6.0.1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC, ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v8.0, SteelEye LifeKeeper for Linux v8.1.1, SteelEye LifeKeeper for Linux v8.1.2, SteelEye LifeKeeper for Linux v8.1.3, SteelEye LifeKeeper for Linux v8.2, SteelEye LifeKeeper for Linux v8.2.1, SteelEye LifeKeeper for Linux v8.3.1, SteelEye LifeKeeper for Linux v8.3.2, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas / Infoscate / VxVM	Native Cluster	Symantec/ Veritas/ Infoscate/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
48	Red Hat RHEL [x86_64] 6.10 (EOL)	6.5 - 7.2	DM-MPIO , DMP	6.0.5 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2.1, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 2, 18c RAC
49	Red Hat RHEL [x86_64] 6.2 (EOL)		DM-MPIO , DMP	5.1 SP1 - 6.0.5	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.1, Cluster Server (VCS) 6.0.2, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0 for Oracle RAC, Storage Foundation 6.0.1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v8.1, SteelEye LifeKeeper for Linux v8.1.1, SteelEye LifeKeeper for Linux v8.1.2, SteelEye LifeKeeper for Linux v8.1.3, SteelEye LifeKeeper for Linux v8.2, SteelEye LifeKeeper for Linux v8.2.1, SteelEye LifeKeeper for Linux v8.3.1, SteelEye LifeKeeper for Linux v8.3.2, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscail/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscail/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
50	Red Hat RHEL [x86_64] 6.3 (EOL)		DM-MPIO , DMP	5.1 SP1 - 6.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.1, Cluster Server (VCS) 6.0.2, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0.1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2 for Oracle RAC	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v8.1.1, SteelEye LifeKeeper for Linux v8.1.2, SteelEye LifeKeeper for Linux v8.1.3, SteelEye LifeKeeper for Linux v8.2, SteelEye LifeKeeper for Linux v8.2.1, SteelEye LifeKeeper for Linux v8.3.1, SteelEye LifeKeeper for Linux v8.3.2, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5, StorNext File System (snfs) 4.3.0

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscalt/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscalt/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
51	Red Hat RHEL [x86_64] 6.4 (EOL)		DM-MPIO , DMP	5.1 SP1 - 7.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2, Cluster Server (VCS) 6.2.1, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC, ClusterPro X 3.1, ClusterPro X 3.2, SteelEye LifeKeeper for Linux v8.1.2, SteelEye LifeKeeper for Linux v8.1.3, SteelEye LifeKeeper for Linux v8.2, SteelEye LifeKeeper for Linux v8.2.1, SteelEye LifeKeeper for Linux v8.3.1, SteelEye LifeKeeper for Linux v8.3.2, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5, StorNext File System (snfs) 4.7.0, StorNext File System (snfs) 4.7.1

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscate/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscate/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
52	Red Hat RHEL [x86_64] 6.5 (EOL)		DM-MPIO , DMP	6.0.5 - 7.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.3, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2, Cluster Server (VCS) 6.2.1, Storage Foundation 5.1 SP1 for Oracle RAC, Storage Foundation 6.0.3 for Oracle RAC, Storage Foundation 6.0.5 for Oracle RAC, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC, ClusterPro X 3.1, ClusterPro X 3.2, PRIMECLUSTER 4.3A40, SteelEye LifeKeeper for Linux v8.2.1, SteelEye LifeKeeper for Linux v8.3.1, SteelEye LifeKeeper for Linux v8.3.2, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
53	Red Hat RHEL [x86_64] 6.6 (EOL)		DM-MPIO , DMP	6.0.5 - 7.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2, Cluster Server (VCS) 6.2.1, Storage Foundation 6.0.5 for Oracle RAC, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC, ClusterPro X 3.3, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscail/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscale/VCS/ SFRAC/VxVCS/ SFHA	Oracle RAC & 3rd Party Clusters
54	Red Hat RHEL [x86_64] 6.7 (EOL)		DM-MPIO , DMP	6.0.5 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2.1, Storage Foundation 6.0.5 for Oracle RAC, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , ClusterPro X 3.3, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
55	Red Hat RHEL [x86_64] 6.8 (EOL)		DM-MPIO , DMP	6.0.5 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2.1, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
56	Red Hat RHEL [x86_64] 6.9 (EOL)	6.5 - 7.2	DM-MPIO , DMP	6.0.5 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 6.0	Cluster Server (VCS) 5.1, Cluster Server (VCS) 6.0, Cluster Server (VCS) 6.0.5, Cluster Server (VCS) 6.1, Cluster Server (VCS) 6.1.1, Cluster Server (VCS) 6.2.1, Storage Foundation 6.1.1 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscate/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscate/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
57	Red Hat RHEL [x86_64] 7.0		DM-MPIO , DMP	6.2.1 - 7.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2, Cluster Server (VCS) 6.2.1, Storage Foundation 6.2 for Oracle RAC, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , ClusterPro X 3.3, SteelEye LifeKeeper for Linux v8.4.0, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
58	Red Hat RHEL [x86_64] 7.1		DM-MPIO , DMP	6.2.1 - 7.3	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.0, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , ClusterPro X 3.3, SteelEye LifeKeeper for Linux v8.4.1, SteelEye LifeKeeper for Linux v9.0, SteelEye LifeKeeper for Linux v9.0.1, SteelEye LifeKeeper for Linux v9.0.2, SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscate/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscate/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
59	Red Hat RHEL [x86_64] 7.2	6.5 - 7.3	DM-MPIO , DMP	6.2.1 - 7.3	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.0.1, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.0.1, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , SteelEye LifeKeeper for Linux v9.1, SteelEye LifeKeeper for Linux v9.1.1, SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
60	Red Hat RHEL [x86_64] 7.3	6.5 - 7.3	DM-MPIO , DMP	6.2.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.1, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.1, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , SteelEye LifeKeeper for Linux v9.1.2, SteelEye LifeKeeper for Linux v9.2, SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
61	Red Hat RHEL [x86_64] 7.4	6.5 - 7.3	DM-MPIO , DMP	6.2.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.2, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , SteelEye LifeKeeper for Linux v9.2.1, SteelEye LifeKeeper for Linux v9.2.2, SteelEye LifeKeeper for Linux v9.3, SteelEye LifeKeeper for Linux v9.3.1, SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
62	Red Hat RHEL [x86_64] 7.5	6.5 - 7.3	DM-MPIO , DMP	6.2.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.2, Storage Foundation for Oracle RAC 7.3, Storage Foundation for Oracle RAC 7.3.1, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7, Veritas Cluster Server (VCS) 7.3, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5

No.	Platform Support	EMC PowerPath®	Native MPIO & DMP	Symantec / Veritas/ Infoscate/ VxVM	Native Cluster	Symantec/ Veritas/ Infoscate/VCS/ SFRAC/VxCFS/ SFHA	Oracle RAC & 3rd Party Clusters
63	Red Hat RHEL [x86_64] 7.6	6.5 - 7.3	DM-MPIO , DMP	6.2.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC , SteelEye LifeKeeper for Linux v9.3.2, SteelEye LifeKeeper for Linux v9.4, SteelEye LifeKeeper for Linux v9.4.1, SteelEye LifeKeeper for Linux v9.5
64	Red Hat RHEL [x86_64] 7.7	6.5 - 7.3	DM-MPIO , DMP	6.2.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Cluster Server (VCS) 6.2.1, Storage Foundation 6.2.1 for Oracle RAC, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
65	Red Hat RHEL [x86_64] 7.8	7.1 P02 - 7.4	DM-MPIO , DMP	7.3.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Veritas Cluster Server (VCS) 7.3.1, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
66	Red Hat RHEL [x86_64] 7.9	7.2 - 7.4	DM-MPIO , DMP	7.3.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 7.0	Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	19c RAC
67	Red Hat RHEL [x86_64] 8.0	7.0 - 7.4	DM-MPIO , DMP	7.4.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0	Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	19c RAC
68	Red Hat RHEL [x86_64] 8.1	7.1 - 7.4	DM-MPIO , DMP	7.4.1 - 7.4.2	GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0	Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	19c RAC
69	Red Hat RHEL [x86_64] 8.2	7.2 - 7.4	DM-MPIO , DMP		GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0	Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.4.1, Veritas Cluster Server (VCS) 7.4.2	19c RAC
70	Red Hat RHEL [x86_64] 8.3	7.2 - 7.4	DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0		
71	Red Hat RHEL [x86_64] 8.4	7.3 SP1 - 7.4	DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0	Veritas Cluster Server (VCS) 7.4.2	19c RAC
72	Red Hat RHEL [x86_64] 8.5	7.4	DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0		
73	Red Hat RHEL [x86_64] 8.6		DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 8.0		
74	Red Hat RHEL [x86_64] 9.0		DM-MPIO		GFS2 (Global File System 2) GFS2, High Availability Add-on 9.0		
75	SUSE SLES [x86_64] 12 SP3		DMP	7.4 - 7.4.1	High Availability Extension	Storage Foundation for Oracle RAC 7.4, Storage Foundation for Oracle RAC 7.4.1, Veritas Cluster Server (VCS) 7.4, Veritas Cluster Server (VCS) 7.4.1	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
76	SUSE SLES [x86_64] 12 SP4	6.5 - 7.0	DMP	7.4.2	High Availability Extension	Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
77	SUSE SLES [x86_64] 12 SP5	7.1 - 7.4	DMP	7.4.2	High Availability Extension	Veritas Cluster Server (VCS) 7.4.2	11g RAC Release 2, 12c RAC Release 1, 12c RAC Release 2, 18c RAC , 19c RAC
78	SUSE SLES [x86_64] 15	6.5 - 7.0			High Availability Extension		12c RAC Release 2, 19c RAC
79	SUSE SLES [x86_64] 15 SP1	7.0 - 7.1 P02	DMP	7.4.2	High Availability Extension	Veritas Cluster Server (VCS) 7.4.2	12c RAC Release 2, 19c RAC
80	SUSE SLES [x86_64] 15 SP2	7.2 - 7.3			High Availability Extension		
81	SUSE SLES [x86_64] 15 SP3	7.3 SP1 - 7.4			High Availability Extension		19c RAC
82	VMware ESXi 6.5 (vSphere6.5),VMware ESXi 6.7 (vSphere 6.7)	6.6 - 7.2	NMP				
83	VMware ESXi 7.0 (vSphere 7.0)	7.0 - 7.2	NMP				
84	VSI OpenVMS 8.4-2L1		VMS Native Multipathing		VMS Cluster License only		

Note: The information in this ESSM is a configuration summary. The versions listed in the columns represent versions that work with the listed Platform/Operating Systems and Storage Array. Versions listed in the columns for each specific Platform/Operation System may not be interoperable. For more detailed information, refer to the Advanced Query section on the ELN home page at <https://elabnavigator.dell.com>.



APRIL, 2022

UNITY FAMILY SIMPLE SUPPORT MATRIX

380F/480F/680F/880F
380/480/680/880
350F/450F/550F/650F
300F/400F/500F/600F
300/400/500/600
UnityVSA

Unity OE 5.2

Tables 2-16 of the Dell Unity™ & Unity XT Simple Support Matrix provide information on Backup & NDMP applications, Limits, Replication, Anti-Virus, and Ecosystem support.

TABLE 2. 3-WAY NDMP BACKUP QUALIFIED VENDOR MATRIX

NDMP Vendor/Version	NDMP Capabilities			Unity File OE			
	Ver.	Dump/tar	DAR	CORE	DDAR	Filters	Int.Ckpt
Atempo Time Navigator							
v4.6.4	4	Dump	Yes	Yes	Yes	Yes	Yes
CommVault Simpana with NDMP							
v11.25	4	Dump	Yes	Yes	Yes	Yes	Yes
Dell Avamar with ADS/DD							
v19.1 (OE 4.5)	4	Avamar Controlled	No	Yes	No	No	Yes
Dell Networker with NDMP							
v9.2	4	Dump/Tar	Yes	Yes	Yes	Yes	Yes
IBM Spectrum Protect (SP)							
v8.1	4	Dump	Yes	Yes	No	No	Yes
Micro Focus Data Protector							
v10.91	4	Dump	Yes	Yes	Yes	No	Yes
VERITAS Backup Exec							
v21.3	4	Dump	Yes	Yes	Yes	Yes	Yes
VERITAS NetBackup with NDMP							
v9.1	4	Dump/Tar	Yes	Yes	Yes	Yes	Yes
Footnote: Yes - Supported No - Not supported N/A - Not Applicable CORE - Base NDMP operation (backup/restore) DDAR - Directory Direct Access Restore Filters - NDMP filters which you can specify Int. Ckpt - internal NDMP checkpoint (SNAPSURE)							

TABLE 3. 2-WAY NDMP BACKUP QUALIFIED VENDOR MATRIX

NDMP Vendor/Version	NDMP Capabilities			Unity File OE			
	Ver.	Dump/tar	DAR	CORE	DDAR	Filters	Int.Ckpt
CommVault Simpana with NDMP							
v11.25	4	Dump	Yes	Yes	Yes	Yes	Yes
Dell NetWorker with NDMP							
v9.2	4	Dump/Tar	Yes	Yes	Yes	Yes	Yes
HPE Data Protector							
v10	4	Dump	Yes	Yes	Yes	No	Yes
IBM Spectrum Protect (SP)							
v8.1	4	Dump	Yes	Yes	No	No	Yes
Micro Focus Data Protector							
v10.91	4	Dump	Yes	Yes	Yes	No	Yes
VERITAS Backup Exec							
v21.3	4	Dump	Yes	Yes	Yes	Yes	Yes
VERITAS NetBackup with NDMP							
v9.1	4	Dump/Tar	Yes	Yes	Yes	Yes	Yes
Footnote: Yes - Supported No - Not supported N/A - Not Applicable CORE - Base NDMP operation (backup/restore) DDAR - Directory Direct Access Restore Filters - NDMP filters which you can specify Int. Ckpt - Internal NDMP checkpoint (SNAPSURE)							

TABLE 4. 2-WAY NDMP TAPE DEVICE SUPPORT

Vendor	Version
IBM	LTO 8, LTO 7, LTO 6, LTO 5, LTO 4
Oracle	StorageTek T10000C, StorageTek T10000D

TABLE 5. UNISPHERE WEB BROWSER SUPPORT






Web Browser	Version
	Google Chrome v57 or later
	Internet Explorer v11
	Edge v41 or later
	Mozilla Firefox v52 or later
	Apple Safari v10 or later

TABLE 6. UNITY XT 380(F)/480(F)/680(F)/880(F) & UnityVSA LIMITS

Capacity Limits/ Base Models	380F 380	480F 480	680F 680	880F 880	UnityVSA
Memory, CPU, Drives, Ports					
SP CPU Type	1.7GHz Broadwell	Dual-Socket 1.8GHz Skylake	Dual-Socket 2.1GHz Skylake	Dual-Socket 2.1GHz Skylake	Virtual
Cores per SP	6	16	24	32	Min 2
Memory per SP (GB)	64	96	192	384	Min 12
Max FAST Cache (GB)	800	1200	3200	6000	N/A
Max No. of Physical Drives	500	750	1000	1500	50 vDisks
10/25GbE iSCSI: Max embedded + Mezz + SLIC Ports per SP	12 - 10GbE 8 - 25GbE	12	12	12	4
FC: Max Embedded + SLIC ports per SP	10	8	8	8	N/A
Max FE Ports per SP (all types)	12	12	12	12	4
12G SAS BE: Max Ports Per SP	2	6	6	6	N/A
Max block HA Hosts (2 Initiators per Host)	512	1024	1024	2048	64 Dual SP 32 Single SP
Max vLan per iSCSI port	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6
Note: <ul style="list-style-type: none"> Directly attaching a host to a Unity system is supported on both FC and iSCSI if the host connects to both SPs and has the required multipath software 					
LUN Limits					
Max LUNs per system (also per pool)	1000	1500	2000	6000	64
Max User Visible LUNs	7000	7500	11000	26000	1064
Max pool capacity (TB)	2269	3781	7562	15124	350
Max Pool Based LUN Size (TB)	256	256	256	256	16
Max Pool LUNs per system	1000	1500	2000	6000	64
Max pools per system	20	30	40	100	16
Max physical disks in all pools	500	750	1000	1500	50 vDisks
Max Host I/O Limits (LUN & VVol combined)	9200	10200	14800	36000	N/A
Note: <ul style="list-style-type: none"> Max User Visible LUNs is: Max (Pool LUNs, VVOLS) + Snapshot Source LUNs 					

	NAS/FS				
Max File System size (TB)	256	256	256	256	256
Max NAS system capacity (TB)	2269	3781	7562	15124	350
Max File systems	1000	1500	2000	4000	64
Max NAS servers per system	90	128	128	256	16
Max NAS Server Network Interfaces Per System	2000	2000	2000	3000	320
Max File systems per NAS Server	500	500	2000	4000	64
Max CIFS servers per NAS Server	1	1	1	1	1
Max NFS servers per NAS Server	1	1	1	1	1
Max CIFS servers per system	90	90	128	256	16
CIFS shares per FS (Soft Limit – Refer "Note" section below)	500	1500	10000	10000	150
Number of CIFS shares per System (Soft Limit – Refer "Note" section below)	500	1500	10000	10000	150
Number of NFS exports per System (Soft Limit – Refer "Note" section below)	500	1000	5000	5000	150
Max tree quotas per FS	8192	8192	8192	8192	512
File Names per Directory (Million)	10	10	10	10	10
Sub-directories /Files per directory (Million)	10	10	10	10	10
Number of home directories supported	20000	20000	20000	20000	5000
CIFS TCP connections	65536	98304	128000	128000	20000
NFS TCP connections	65536	98304	128000	128000	20000
Max TCP Connections per System	153600	153600	153600	153600	32000
Max unique ACLs per File System (Million)	4	4	4	4	1
CIFS shares + NFS exports per System (Soft Limit – Refer "Note" section below)	1000	2500	15000	15000	300
Directories supported per File system (Billion)	>10's of Billions	>10's of Billions	>10's of Billions	>10's of Billions	>10's of Billions
Max File size (TB)	256	256	256	256	256
Max open Files/Directories	300000	360000	360000	512000	64000
Max vLan per port (File)	2000	2000	2000	3000	320

Files supported per File System (Billion)	32	32	32	32	32
NAS Tenants	90	128	128	256	N/A
Note: <ul style="list-style-type: none"> • Pathname length – 1024 characters (CIFS), NFS has no limit • File system name length – 95 characters • File /directory name length – 255 bytes for NFS and 255 characters for CIFS • NFS Exports and CIFS Shares limits are the advised limits for an optimal system experience. Higher limits may impose visible performance impact during a simultaneous access and may also degrade Unisphere management experience • Home Directory limit is the tested limit representing the number of entries in homedir config file. Use wild char with rules associated to user names to limit the number of entries in the config file for optimal connectivity response time 					
	Snapshots				
Max Snapshots per LUN (attached/detached)	256	256	256	256	164
Max (File) Snaps per File System	256	256	256	256	31
Max Snapshots Source LUNs per System	1000	1500	2000	6000	64
Max Source LUNs in Consistency Group	75	75	75	75	50
Max Consistency groups per System	1000	1500	2000	6000	64
Max User snapshots per system (block + file)	8000	14000	20000	30000	128
Max User read-only file snapshots per system	500	4000	8000	16000	32
Max User read/write file snapshots per system	500	500	1000	1000	32
Max user visible File Systems + read/write File Snaps per system	1500	2000	3000	5000	64
Hierarchical Snap Level - NAS	10	10	10	10	10
Hierarchical Snap Level -LUN	10	10	10	10	10
	Replication & Backup				
Max Replication sessions File/Block	1000	1000	1500	2000	32
Max Sync replication Objects	500	750	1000	2000	N/A
Max Sync Replication Consistency Groups*	64	64	64	128	N/A
Max LUNs per Sync Replication Consistency Group	32	32	32	32	N/A
Max LUNs per Async Replication Consistency Group	75	75	75	75	50
Max NAS Server replicated	90	128	128	256	4

Max Async Replication Target Systems	16	16	16	16	16
Max Sync Replication Target Systems	1	1	1	1	N/A
Max concurrent NDMP Sessions per SP	8	8	20	20	2
Max number of async replication sessions (File/Block)**	1000	1000	1500	2000	32
<p>Note: *Max number of CGs that can be replicated using Block Sync replication **Max number of CGs that can be replicated using RepV2 is capped by this. This is similar to being able to create more stand-alone LUNs or FSs that can be created but not all of them can be replicated</p>					
	VVols				
Max VVol size (TB)	16	16	16	16	16
Max VVol Instances	9000	9000	13500	30000	1750
Max bound VVols	6000	6000	9000	20000	1000
Max Base VVols	7200	7200	10800	24000	700
Max bound NAS-Config VVols	960	960	1920	4000	40
Max Capability Profile Quotas	400	400	700	800	40
NAS Protocol Endpoints	1250	1625	1875	2500	80
Max VVol Data stores	100	100	150	200	10

TABLE 7. 350F/450F/550F/650F LIMITS

Capacity Limits/ Base Models	350F	450F	550F	650F
	Memory, CPU, Drives, Ports			
SP CPU Type	1.7GHz Broadwell	2.2GHz Broadwell	2.0GHz Broadwell	2.4GHz Broadwell
Cores	6	10	14	14
SP Memory per SP (GB)	48	64	128	256
Max FAST Cache (GB)	N/A	N/A	N/A	N/A
Max No. of Physical Drives	150	250	500	1000
10GbE iSCSI: Max embedded + SLIC Ports per SP	12	12	12	12
FC: Max Embedded + SLIC ports per SP	10	10	10	10
Max FE Ports per SP (all types)	12	12	12	12

12G SAS BE: Max Ports Per SP	2	2	6	6
Max block HA Hosts (2 Initiators per Host)	512	1024	1024	2048
Max vLan per iSCSI port	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6
<p>Note:</p> <ul style="list-style-type: none"> Directly attaching a host to a Unity system is supported on both FC and iSCSI if the host connects to both SPs and has the required multipath software 				
LUN Limits				
Max LUNs per system (also per pool)	1000	1500	2000	6000
Max User Visible LUNs	7000	7500	11000	26000
Max pool capacity (TB)	2269	3781	7562	15124
Max Pool Based LUN Size (TB)	256	256	256	256
Max Pool LUNs per system	1000	1500	2000	6000
Max pools per system	20	30	40	100
Max physical disks in all pools	150	250	500	1000
Max Host I/O Limits (LUN & VVol combined)	9200	10200	14800	36000
<p>Note:</p> <ul style="list-style-type: none"> Max User Visible LUNs is: Max(Pool LUNs, VVOLs) + Snapshot Source LUNs 				
NAS/FS				
Max File System size (TB)	256	256	256	256
Max NAS system capacity (TB)	2269	3781	7562	15124
Max File systems	1000	1500	2000	4000
Max NAS servers per system	90	128	128	256
Max NAS Server Network Interfaces Per System	2000	2000	2000	3000
Max File systems per NAS Server	500	500	1000	1500
Max CIFS servers per NAS Server	1	1	1	1
Max NFS servers per NAS Server	1	1	1	1
Max CIFS servers per system	90	128	128	256
CIFS shares per FS (Soft Limit – Refer "Note" section below)	500	1500	3000	3000

Number of CIFS shares per System (Soft Limit – Refer "Note" section below)	500	1500	3000	3000
Number of NFS exports per System (Soft Limit – Refer "Note" section below)	500	1000	1500	1500
Max tree quotas per FS	8192	8192	8192	8192
File Names per Directory (Million)	10	10	10	10
Sub-directories /Files per directory (Million)	10	10	10	10
Number of home directories supported	20000	20000	20000	20000
CIFS TCP connections	65536	98304	128000	128000
NFS TCP connections	65536	98304	128000	128000
Max TCP Connections per System	153600	153600	153600	153600
Max unique ACLs per File System (Million)	4	4	4	4
CIFS shares + NFS exports per System (Soft Limit – Refer "Note" section below)	1000	2500	4500	4500
Directories supported per File system (Billion)	>10's of Billions	>10's of Billions	>10's of Billions	>10's of Billions
Max File size (TB)	256	256	256	256
Max open Files/Directories	300000	360000	360000	512000
Max vLan per port (File)	2000	2000	2000	3000
Files supported per File System (Billion)	32	32	32	32
NAS Tenants	90	128	128	256
Note: <ul style="list-style-type: none"> • Pathname length – 1024 characters (CIFS), NFS has no limit • File system name length – 95 characters • File /directory name length – 255 bytes for NFS and 255 characters for CIFS • NFS Exports and CIFS Shares limits are the advised limits for an optimal system experience. Higher limits may impose visible performance impact during a simultaneous access and may also degrade Unisphere management experience • Home Directory limit is the tested limit representing the number of entries in homedir config file. Use wild char with rules associated to user names to limit the number of entries in the config file for optimal connectivity response time 				
Snapshots				
Max Snapshots per LUN (attached/detached)	256	256	256	256
Max (File) Snaps per File System	256	256	256	256
Max Snapshots Source LUNs per System	1000	1500	2000	6000

Max Source LUNs in Consistency Group	75	75	75	75
Max Consistency groups per System	1000	1500	2000	6000
Max User snapshots per system (block + file)	8000	14000	20000	30000
Max User read-only file snapshots per system	500	4000	8000	16000
Max User read/write file snapshots per system	500	500	1000	1000
Max user visible File Systems + read/write File Snaps per system	1500	2000	3000	5000
Hierarchical Snap Level - NAS	10	10	10	10
Hierarchical Snap Level -LUN	10	10	10	10
Replication & Backup				
Max Replication sessions File/Block	1000	1000	1500	2000
Max Sync replication Objects	500	750	1000	2000
Max Sync Replication Consistency Groups*	64	64	64	128
Max LUNs per Sync Replication Consistency Group	32	32	32	32
Max LUNs per Async Replication Consistency Group	75	75	75	75
Max NAS Server replicated	90	128	128	256
Max Async Replication Target Systems	16	16	16	16
Max Sync Replication Target Systems	1	1	1	1
Max concurrent NDMP Sessions per SP	8	8	20	20
Max number of async replication sessions (File/Block)**	1000	1000	1500	2000
<p>Note:</p> <p>*Max number of CGs that can be replicated using Block Sync replication</p> <p>**Max number of CGs that can be replicated using RepV2 is capped by this. This is similar to being able to create more stand-alone LUNs or FSs that can be created but not all of them can be replicated</p>				
VVols				
Max VVol size (TB)	16	16	16	16
Max VVol Instances	9000	9000	13500	30000
Max bound VVols	6000	6000	9000	20000
Max Base VVols	7200	7200	10800	24000

Max bound NAS-Config VVols	960	960	1920	4000
Max Capability Profile Quotas	400	400	700	800
NAS Protocol Endpoints	1250	1625	1875	2500
Max VVol Data stores	100	100	150	200

TABLE 8. 300(F)/400(F)/500(F)/600(F) LIMITS

Capacity Limits/ Base Models	300(F)	400(F)	500(F)	600(F)
Memory, CPU, Drives, Ports				
SP CPU Type	1.6GHz Haswell	2.4GHz Haswell	2.6GHz Haswell	2.5GHz Haswell
Cores	6	8	10	12
SP Memory per SP (GB)	24	48	64	128
Max FAST Cache (GB)	800	1200	3200	6000
Max No. of Physical Drives	150	250	500	1000
10GbE iSCSI: Max embedded + SLIC Ports per SP	12	12	12	12
FC: Max Embedded + SLIC ports per SP	10	10	10	10
Max FE Ports per SP (all types)	12	12	12	12
12G SAS BE: Max Ports Per SP	2	2	6	6
Max block HA Hosts (2 Initiators per Host)	512	1024	1024	2048
Max vLan per iSCSI port	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6	32 IPv4 32 IPv6
Note:				
<ul style="list-style-type: none"> Directly attaching a host to a Unity system is supported on both FC and iSCSI if the host connects to both SPs and has the required multipath software 				
LUN Limits				
Max LUNs per system (also per pool)	1000	1500	2000	6000
Max User Visible LUNs	7000	7500	11000	26000
Max pool capacity (TB)	2215	3692	7385	9230
Max Pool Based LUN Size (TB)	256	256	256	256
Max Pool LUNs per system	1000	1500	2000	6000
Max pools per system	20	30	40	100
Max physical disks in all pools	150	250	500	1000

Max Host I/O Limits (LUN & VVol combined)	9200	10200	14800	36000
Note: <ul style="list-style-type: none"> Max User Visible LUNs is: Max(Pool LUNs, VVOLs) + Snapshot Source LUNs 				
	NAS/FS			
Max File System size (TB)	256	256	256	256
Max NAS system capacity (TB)	2269	3692	7385	15124
Max File systems	500	750	1000	1500
Max NAS servers per system	90	128	128	256
Max NAS Server Network Interfaces Per System	2000	2000	2000	3000
Max File systems per NAS Server	500	500	1000	1500
Max CIFS servers per NAS Server	1	1	1	1
Max NFS servers per NAS Server	1	1	1	1
Max CIFS servers per system	90	128	128	256
CIFS shares per FS* (soft limit)	500	1500	3000	3000
Number of CIFS shares per System* (soft limit)	500	1500	3000	3000
Max tree quotas per FS	8192	8192	8192	8192
File Names per Directory (Million)	10	10	10	10
Sub-directories /Files per directory (Million)	10	10	10	10
Number of home directories supported	20000	20000	20000	20000
CIFS TCP connections	65536	98304	128000	128000
NFS TCP connections	65536	98304	128000	128000
Max TCP Connections per System	153600	153600	153600	153600
Max unique ACLs per File System (Million)	4	4	4	4
CIFS shares + NFS exports per System (Soft Limit)	1000	2500	4500	4500
Directories supported per File system (Billion)	>10's of Billions	>10's of Billions	>10's of Billions	>10's of Billions
Max File size (TB)	256	256	256	256
Max open Files/Directories	300000	360000	360000	512000

Max vLan per port (File)	2000	2000	2000	3000
Files supported per File System (Billion)	32	32	32	32
NAS Tenants	90	90	128	256

*Note:

- Pathname length – 1024 characters (CIFS), NFS has no limit
- File system name length – 95 characters
- File /directory name length – 255 bytes for NFS and 255 characters for CIFS
- NFS Exports and CIFS Shares limits are the advised limits for an optimal system experience. Higher limits may impose visible performance impact during a simultaneous access and may also degrade Unisphere management experience
- Home Directory limit is the tested limit representing the number of entries in homedir config file. Use wild char with rules associated to user names to limit the number of entries in the config file for optimal connectivity response time

	Snapshots			
Max Snapshots per LUN (attached/detached)	256	256	256	256
Max (File) Snaps per File System	256	256	256	256
Max Snapshots Source LUNs per System	1000	1500	2000	6000
Max Source LUNs in Consistency Group	75	75	75	75
Max Consistency groups per System	1000	1500	2000	6000
Max User snapshots per system (block + file)	8000	14000	20000	30000
Max User read-only file snapshots per system	500	4000	8000	16000
Max User read/write file snapshots per system	500	500	1000	1000
Max user visible File Systems + read/write File Snaps per system	1000	1250	2000	2500
Hierarchical Snap Level - NAS	10	10	10	10
Hierarchical Snap Level -LUN	10	10	10	10
	Replication & Backup			
Max Replication sessions File/Block	1000	1000	1500	2000
Max Sync replication Objects	500	750	1000	2000
Max Sync Replication Consistency Groups	64	64	64	128
Max LUNs per Sync Replication Consistency Group	32	32	32	32
Max LUNs per Async Replication Consistency Group	75	75	75	75

Max NAS Server replicated	90	128	128	256
Max Async Replication Target Systems	16	16	16	16
Max Sync Replication Target Systems	1	1	1	1
Max concurrent NDMP Sessions per SP	8	8	20	20
Max number of async replication sessions (File/Block)**	1000	1000	1500	2000

Note:

*Max number of CGs that can be replicated using Block Sync replication

**Max number of CGs that can be replicated using RepV2 is capped by this. This is similar to being able to create more stand-alone LUNs or FSs that can be created but not all of them can be replicated

	VVols			
Max VVol size (TB)	16	16	16	16
Max VVol Instances	9000	9000	13500	30000
Max bound VVols	6000	6000	9000	20000
Max Base VVols	7200	7200	10800	24000
Max bound NAS-Config VVols	960	960	1920	4000
Max Capability Profile Quotas	400	400	700	800
NAS Protocol Endpoints	1250	1625	1875	2500
Max VVol Data stores	100	100	150	200

TABLE 9. REPLICATION SUPPORT ACROSS PLATFORMS

Source/ Destination	Destination /Source	Block Replication		File Replication		Recover Point (Block)
		Sync	Async	Sync	Async	
Unity / XT	Unity / XT	✓	✓	✓	✓	✓
Unity / XT	UnityVSA	✗	✓	✗	✓	✗
Unity / XT	VNXe3200*	✗	✓	✗	✗	✓
Unity / XT	VNX1/VNX2	✗	✗	✗	✗	✓
Unity / XT	VNXe1600	✗	✓	✗	✗	✗
UnityVSA	UnityVSA	✗	✓	✗	✓	✗
UnityVSA	Unity / XT	✗	✓	✗	✓	✗
UnityVSA	VNXe3200*	✗	✓	✗	✗	✗
UnityVSA	VNX1/VNX2	✗	✗	✗	✗	✗
UnityVSA	VNXe1600	✗	✓	✗	✗	✗
VNX1/VNX2	Unity / XT	✗	✗	✗	✗	✓

Note:
 *Min VNXe3200 OE v3.1.5.6801782

Footnote:
 ✓ – Supported
 ✗ – Not Supported

TABLE 10. ANTIVIRUS, SECURITY INFORMATION AND EVENT MANAGEMENT (SIEM), AND CONTENT/QUOTA MANAGEMENT SOFTWARE

Please refer to this page for the latest supported CEE and Antivirus versions:

https://elabnavigator.dell.com/vault/pdf/CEE_CAVA_support_matrix.pdf

Please refer to this page for the latest supported SIEM and Content/Quota Management versions:

https://elabnavigator.dell.com/vault/pdf/CEE_CEPA_support_matrix.pdf

TABLE 11. I18N SUPPORT

Client Type	Supported
SMB Clients	UCS-2 (Unicode)
UNIX/LINUX Clients	UTF8

TABLE 12. UNITY XT FEDERAL COMPLIANCE

Features	Version Supported/Status
D@RE provided by Controller Based Encryption (CBE) (Internal or External Key Management)	Available
D@RE supported External Key Managers (KMIP)	<ul style="list-style-type: none"> ▪ Dell CloudLink v6.6, v6.7, v7.0.1, v7.0.2, v7.1.1 ▪ Thales Vormetric v6.1.0, v6.3.0 ▪ Thales CipherTrust Manager v1.10, v2.5 ▪ Thales/Gemalto KeySecure v8.9, v8.11.1, v8.12.1 ▪ IBM SKLM v3.0.0.1, v3.0.1, v4.0, v4.1
FIPS 140-2 Level 1 validation	Complete
TLS 1.2 support	Included
Native SHA2 certificate	Included
Common Criteria	Complete
IPv6 and dual stack modes of operation	Complete
STIG Product hardening	Complete

TABLE 13. UNITY X50F & X00(F) FEDERAL COMPLIANCE

Features	Version Supported/Status
D@RE provided by Controller Based Encryption (CBE) (Internal or External Key Management)	Available
D@RE supported External Key Managers (KMIP)	<ul style="list-style-type: none"> ▪ Dell CloudLink v6.6, v6.7, v7.0.1, v7.0.2, v7.1.1 ▪ Thales Vormetric v6.1.0, v6.3.0 ▪ Thales CipherTrust Manager v1.10, v2.5 ▪ Thales/Gemalto KeySecure v8.9, v8.11.1, v8.12.1 ▪ IBM SKLM v3.0.0.1, v3.0.1, v4.0, v4.1
FIPS 140-2 Level 1 validation	Complete
TLS 1.2 support	Included
Native SHA2 certificate	Included
Common Criteria	Complete

IPv6 and dual stack modes of operation	Complete
STIG Product hardening	Complete

TABLE 14. DELL TECHNOLOGIES ECOSYSTEM SUPPORT

Advanced Applications	Supported
RecoverPoint	5.1.x (UnityVSA is not supported) https://elabnavigator.dell.com/vault/pdf/Dell EMC RecoverPoint Classic 5.1.x DESSM.pdf?key=1611977709994
AppSync	3.9
metro node	https://elabnavigator.dell.com/vault/pdf/metro_node_v7_0_ESSM.pdf?key=1612886709752
PowerPath	Linux: 7.1, 7.2, 7.3 Windows: 6.4, 6.5, 7.0 VMware: 7.0 AIX: 6.4, 6.5, 7.0 P01 Solaris: 6.0 P04 VIOS 3.1.x: 6.4, 7.0, 7.0 P01
VPLEX	6.2.x
VSI	8.1
ESA	4.6
Avamar with Data Domain	19.1
SRM	4.4.3
Unisphere Central	4.0.2.22542 or higher
Unity Plugin for ClusterHQ/Flocker	Available on GitHub
UnityVSA	vSphere 6.7, 7.0 and VASA 3.0 VxRail v4.0 or higher (single-node only)

TABLE 15. ADVANCED APPLICATIONS/OPERATING SYSTEM SUPPORT

Advanced Applications	Supported
Mac OS X	Big Sur 11.2 Catalina 10.15 Mojave 10.14 High Sierra 10.13 Sierra 10.12 El Capitan 10.11 Yosemite 10.10 Mavericks 10.9 (Supported Protocols*)
Commvault IntelliSnap	v11 SP9 or higher

* Unity supports CIFS/SMB access for Mac OS and basic NFS support.

TABLE 16. PLATFORM OS AND FILE PROTOCOL INTEROPERABILITY

Platform	Operating System	SMB/NFS Version(s) Supported
Microsoft	Windows 8	SMB 3.0
	Windows 8.1	SMB 3.02
	Windows 10	SMB 3.1.1
	Windows 11	SMB 3.1.1
	Windows Server 2012	SMB 3.0
	Windows Server 2012 R2	SMB 3.02
	Windows Server 2016	SMB 3.1.1
	Windows Server 2019	SMB 3.1.1
	Windows Server 2022	SMB 3.1.1
Redhat	RHEL 7.5	NFS v3, NFS v4.0, NFS v4.1
	RHEL 7.6	NFS v3, NFS v4.0, NFS v4.1

	RHEL 7.7	NFS v3, NFS v4.0, NFS v4.1
	RHEL 7.8	NFS v3, NFS v4.0, NFS v4.1
	RHEL 7.9	NFS v3, NFS v4.0, NFS v4.1
	RHEL 8.0	NFS v3, NFS v4.0, NFS v4.1
	RHEL 8.1	NFS v3, NFS v4.0, NFS v4.1
	RHEL 8.2	NFS v3, NFS v4.0, NFS v4.1
	RHEL 8.3	NFS v3, NFS v4.0, NFS v4.1
	RHEL 8.4	NFS v3, NFS v4.0, NFS v4.1
Suse	SLES 12 SP1	NFS v3, NFS v4.0, NFS v4.1
	SLES 12 SP2	NFS v3, NFS v4.0, NFS v4.1
	SLES 12 SP3	NFS v3, NFS v4.0, NFS v4.1
	SLES 12 SP4	NFS v3, NFS v4.0, NFS v4.1
	SLES 12 SP5	NFS v3, NFS v4.0, NFS v4.1
	SLES 15	NFS v3, NFS v4.0, NFS v4.1
	SLES 15 SP1	NFS v3, NFS v4.0, NFS v4.1
	SLES 15 SP2	NFS v3, NFS v4.0, NFS v4.1
	SLES 15 SP3	NFS v3, NFS v4.0, NFS v4.1
CentOS	CentOS 7.7	NFS v3, NFS v4.0, NFS v4.1
	CentOS 7.8	NFS v3, NFS v4.0, NFS v4.1
	CentOS 7.9	NFS v3, NFS v4.0, NFS v4.1
	CentOS 8.0	NFS v3, NFS v4.0, NFS v4.1
	CentOS 8.1	NFS v3, NFS v4.0, NFS v4.1
	CentOS 8.2	NFS v3, NFS v4.0, NFS v4.1
	CentOS 8.3	NFS v3, NFS v4.0, NFS v4.1
	CentOS 8.4	NFS v3, NFS v4.0, NFS v4.1
Oracle Linux	OL 7.8	NFS v3, NFS v4.0, NFS v4.1
	OL 7.9	NFS v3, NFS v4.0, NFS v4.1

	OL 8.0	NFS v3, NFS v4.0, NFS v4.1
	OL 8.1	NFS v3, NFS v4.0, NFS v4.1
	OL 8.2	NFS v3, NFS v4.0, NFS v4.1
	OL 8.3	NFS v3, NFS v4.0, NFS v4.1
	OL 8.4	NFS v3, NFS v4.0, NFS v4.1
Ubuntu	Ubuntu 18.04	NFS v3, NFS v4.0, NFS v4.1
	Ubuntu 20.04	NFS v3, NFS v4.0, NFS v4.1
Solaris	Solaris 11.4 SPARC	NFS v3, NFS v4.0, NFS v4.1
	Solaris 10 U11 SPARC	NFS v3, NFS v4.0, NFS v4.1
VMware	ESXi 6.5	NFS v3, NFS v4.1
	ESXi 6.5 U1	NFS v3, NFS v4.1
	ESXi 6.5 U2	NFS v3, NFS v4.1
	ESXi 6.5 U3	NFS v3, NFS v4.1
	ESXi 6.7	NFS v3, NFS v4.1
	ESXi 6.7 U1	NFS v3, NFS v4.1
	ESXi 6.7 U2	NFS v3, NFS v4.1
	ESXi 6.7 U3	NFS v3, NFS v4.1
	ESXi 7.0	NFS v3, NFS v4.1
	ESXi 7.0 U1	NFS v3, NFS v4.1
	ESXi 7.0 U2	NFS v3, NFS v4.1

CLLOUD TIERING APPLIANCE

The Dell® Cloud Tiering Appliance (CTA) optimizes primary NAS storage by automatically and transparently relocating inactive files to more appropriate secondary storage by user defined policy. For Unity support, CTA v11.0 is the minimum required. For more information on support please check the link:- https://support.emc.com/products/6298_Cloud-Tiering-Appliance/Documentation/