

SAN STORAGE

Sl.No.	Paramater	Functionality
1.0.1	Operating System & Clustering Support	<p>1. The storage array should support industry-leading Operating System platforms including: <i>Windows 2012 / 2016, HPE-UX, VMware and Linux.</i></p> <p>2. Offered Storage Shall support all above operating systems in Clustering.</p>
1.0.2	Capacity & Scalability	<p>1. The Storage Array shall be offered with 12 TB usable Capacity using 1.8TB SAS 10K SFFdrives.</p> <p>2. For efective power saving, Storage subsystem shall be supplied with 2.5" Small form factor SFF drives however storage subsystem shall also support LFF drives with the addition of required disk enclosures.</p> <p>3. Storage shall be scalable to minimum of 180 number of drives or greater than 325TB using 1.8TB SFF SAS drives.</p>
1.0.3	Front-end Ports	<p>1. Offered Storage system shall be supplied with minimum of Dual 16Gbps FC ports and Dual 10Gbps ISCSI ports per controller.</p> <p>2. Offered storage shall have flexibility to use all above ports either as FC or ISCSI by replacing the requisite SFP. Vendors shall provide the additional SFP accordingly. In case, vendor doesn't support this feature, then every controller shall be populated upfront with 4 x 16Gbps FC ports and 4 x 10Gbps ISCSI ports.</p>
1.0.4	Architecture	The storage array should support dual, redundant, hot-pluggable, active-active array controllersfor high performance and reliability
1.0.5	No Single point of Failure	Offered Storage Array shall be configurable in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc.
1.0.6	Disk Drive Support	<p>1. For SFF drives, Offered Storage Array shall support minimum 300/600/900/1200/1800GB hot-pluggable Enterprise SFF SAS hard drives, 400/800/1600/3200GB SSD along with SAS MDL 1TB / 2TB drives.</p> <p>2. For LFF drives, offered Storage Array shall support minimum of 4TB / 6TB / 8TB SAS MDL drives.</p> <p>3. Offered storage array shall also have support for self-encrypted SAS and SAS MDL drives.</p>

1.0.7	Cache	<p>1. Offerd Storage Array shall be given with Minimum of 8GB cache per controller in a single unit.</p> <p>2. Cache shall be backed up in case of power failure for indefinite time either using batteries or capacitors or any other equivalent technology.</p> <p>3. Offered Storage shall also have optional support for Flash cache using SSD / Flash drives. Offered storage shall support at-least 8TB Flash Cache.</p>
1.0.8	Raid Support	Offered Storage Subsystem shall support Raid 0, 1 , 1+0 , 5 and Raid 6
1.0.9	Point in time and clone copy	<p>1. Offered Storage array shall be configured with array based Snapshot and clone functionlity and shall be configured for minimum of 64 snapshot licenses.</p> <p>2. Offered Storage array shall support at-least 512 point in time copies (Snapshots).</p>
1.1.0	Replication	<p>1. Offered storage subsystem shall support storage based replication to DR location.</p> <p>2. Offered storage subsystem shall support replication to multiple storage array of the same family in fan-out mode. At least 1:4 mode shall be supported.</p>
1.1.1	Virtualization and Thin provisioning	<p>1. Offered storage shall be offered and configured with virtualization capability so that a given volume can be striped across all spindles of given drive type within in a given pool</p> <p>2. Offered Storage shall be offered and configured with Thin Provisioning capability.</p>
1.1.2	Data Tiering	Offered Storage shall also have optional support for Sub-Lun Data tiering in real time fashion across different type of drives within a given pool like SSD, SAS, NL-SAS etc.
1.1.3	Global and dedicated Hot Spare	<p>1. Offered Storage Array shall support Global hot Spare for offered Disk drives.</p> <p>2. Atleast 2 Global hot spare drive shall be configured for every 30 drives.</p> <p>3. Storage subsystem shall also have the flexibility to assign dedicated spare for raid sets.</p>
1.1.4	Logical Volume & Performance	<p>1. Storage Subsystem shall support minimum of 512 Logical Units. Storage Array shall also support creation of more than 100TB volume at controller level.</p> <p>2. Offered Storage shall have inbuilt performance management software. Configuration Dashboard shall show overall IOPS and MB/sec performance.</p>

1.1.5	Load Balancing & Muti-path	1. Multi-path and load balancing software shall be provided, if vendor does not support MPIO functionality of Operating system.
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