

Specifications:

Name	Type	Restrictions	Unit	Properties
Group: Type				
1. Storage Type	Enumerable	Enterprise SAN	N/A	Mandatory,Filter,Golden
2. Type of Storage System	Ordinal	All Flash(1), Hybrid(1)	N/A	Mandatory,Filter,Golden
Group: Storage				
1. Usable Storage Capacity (TB) hint: Indicate The Capacity of Offered System (TB)	Numeric	10 - 5000	N/A	Mandatory,Filter,Golden
2. Disk Type	Ordinal	SAS(1), SSD / Flash(2)	N/A	Mandatory,Filter,Golden
3. Speed of Dual Ported Disk Drive	Ordinal	6 Gbps(1), 12 Gbps(1)	N/A	Mandatory,Filter,Golden
4. Usable Capacity Scalability	Numeric	Any value	N/A	Mandatory,Filter
5. Number of Drive Slots Populated with drives of different type in the Storage System	Numeric	Any value	N/A	Mandatory,Filter,Golden
6. Total no of drive slot populated with SSD / Flash hint: indicate 0 if not populated with SSD Drive	Numeric	Any value	N/A	Mandatory,Filter
7. Total no of drive slot populated with SAS hint: indicate 0 if not populated with SAS Drive drive	Numeric	Any value	N/A	Mandatory,Filter
8. Capacity of Each SSD Drive used (TB) hint: indicate 0 if not populated with NL SAS drive	Numeric	Any value	N/A	Mandatory,Filter
9. Capacity of Each Flash Drive used (TB) hint: May be indicated like SSD-10GB, FLASH-15 GB, SAS-100 GB , NL SAS -300 GB etc as applicable and Provided in the system	Numeric	Any value	N/A	Mandatory,Filter
10. Capacity of Each SAS Drive used (TB)	Numeric	Any value	N/A	Mandatory,Filter
11. Automated Storage tiering feature across the populated Drives of various types(in case of multiple drive / Hybrid system)	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
12. Automated Storage tiering Software License Included (In case of Hybrid SAN System)	Boolean	Yes, No	N/A	Mandatory,Filter
13. Hot Spares	Boolean	Yes, No	N/A	Mandatory,Filter
14. Number of Populated Disks per Hot Spare	Numeric	Any value	N/A	Mandatory,Filter
Group: Features				

Name	Type	Restrictions	Unit	Properties
1. Response Time / Latency of the System (70R / 30W :8KB) with Data Reduction hint: indicate 0 if not populated with Flash Drive	Ordinal	< 1 millisecond for All Flash(1), < 0.5 millisecond for All Flash(1), < 5 millisecond for Hybrid(1)	N/A	Mandatory,Filter,Golden
2. Input / Output per second (Number)	Numeric	1 - 9999999999	N/A	Mandatory,Filter
3. Resilience to handle sub component level failures (CPU, Memory, Front end, Back end Ports) without rebooting the entire controller	Ordinal	Yes(2), NA(1)	N/A	Mandatory,Filter
4. Heterogenous Storage Virtualization Supported	Ordinal	Yes(2), No(1)	N/A	Mandatory,Filter
Group: Connectivity/Port				
1. Type of Front end Ports hint: For example, FC, iSCSI,IP Ports etc as applicable	Ordinal	FC(1), iSCSI(1), FCoE(1)	N/A	Mandatory,Filter,Golden
2. Number of Front end FC Ports hint: for example 4-FC, 4 iSCSI etc	Numeric	Any value	N/A	Mandatory,Filter,Golden
3. Number of Front end iSCSI Ports	Numeric	Any value	N/A	Mandatory,Filter,Golden
4. Number of Front end FCoE Ports	Numeric	Any value	N/A	Mandatory,Filter,Golden
5. Speed of Front end FC Ports in Gbps	Numeric	Any value	N/A	Mandatory,Filter,Golden
6. Speed of Front end iSCSI Ports in Gbps	Numeric	Any value	N/A	Mandatory,Filter,Golden
7. Speed of Front end FCoE Ports in Gbps	Numeric	Any value	N/A	Mandatory,Filter,Golden
8. Front end FC Port Scalability	Numeric	Any value	N/A	Mandatory,Filter,Golden
9. Front end iSCSI Port Scalability	Numeric	Any value	N/A	Mandatory,Filter,Golden
10. Front end FCoE Port Scalability	Numeric	Any value	N/A	Mandatory,Filter,Golden
11. Type of Back end Ports	Enumerable	SAS	N/A	Mandatory
12. Offered Back end Bandwidth in Gbps	Numeric	192, 384, 576, 768, 960, 1152, 1344, 1536	N/A	Mandatory,Filter,Golden
13. Back end Bandwidth Scalability in Gbps	Numeric	384, 576, 768, 960, 1152, 1344, 1536, 4096	N/A	Mandatory,Filter,Golden
14. Type of Remote Replication Port	Ordinal	FC(1), Ethernet(1)	N/A	Mandatory
15. Number of Remote Replication FC Ports	Numeric	2, 4, 8, 16	N/A	Mandatory,Filter
16. Number of Remote Replication Ethernet Ports	Numeric	2, 4, 8, 16	N/A	Mandatory,Filter
17. FCIP Router Factored	Boolean	Yes, No	N/A	Mandatory

Name	Type	Restrictions	Unit	Properties
18. Number of 1/10 Gbps Ports on FCIP Router	Numeric	0, 2, 4, 8, 16	N/A	Mandatory,Filter
19. Number of 8 /16 Gbps FC Ports on FCIP Router	Numeric	0, 2, 4, 8, 16	N/A	Mandatory,Filter
Group: Controllers				
1. Number of Controllers/VSD/ Node available in the storage System	Numeric	2, 4, 6, 8, 10, 12, 14, 16	N/A	Mandatory,Filter,Golden
2. Number of Controllers/VSD/ Nodescalable in the storage System	Numeric	4, 8, 12, 16	N/A	Mandatory
3. RAID Level Support hint: May indicate as per capability of respective Model like 0,1,5,6 or equivalent	Ordinal	5 or equivalent(1), 6 or equivalent(1), 1 or equivalent(1), Triple Parity(-3)	N/A	Mandatory,Filter
4. Symmetric Active-Active Controllers Configured in HA hint: LUN has to be active from all the controllers in the storage system	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
Group: System Cache				
1. Type of Cache	Ordinal	Global(2), Federated(1)	N/A	Mandatory,Filter,Golden
2. Entire Cache is available to all LUNs /Devices across all controllers as a single unit, Entire Cache is dynamically used for Read and Write operations and Storage array cache shall be globally shared and mirrored across controllers that are in different controller pairs, and not just across controllers within the same pair at all times (during normal operations & during any controller failures)	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
3. Total Offered Cache in TB hint: Indicate Value as applicable to Global or Federated Cache Type	Numeric	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15, 15.5, 16	N/A	Mandatory,Filter,Golden
4. Cache Scalability in TB	Numeric	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15, 15.5, 16	N/A	Filter
5. Flash Cache	Boolean	Yes, No	N/A	Mandatory
Group: Additional Features / Support				

Name	Type	Restrictions	Unit	Properties
1. Heterogeneous Virtualization Supported	Boolean	Yes, No	N/A	Mandatory
2. Wide Stripping or equivalent	Boolean	Yes, No	N/A	Mandatory
3. No of Snapshot Copies Per Volume	Numeric	255, 1000	N/A	Mandatory
4. License for Snapshot included	Boolean	Yes, No	N/A	Mandatory
5. Protocols Supported by the storage system from day one hint: Indicate as per model attributes values such as NFS, CIFS FC iSCSI and FCOE etc	Text	N/A	N/A	Mandatory
6. Operating System Platform and Clustering Supported by the Storage from day one hint: Indicate OS Support as per product attribute	Text	N/A	N/A	Mandatory
Group: Data Replication				
1. Remote Replication	Boolean	Yes, No	N/A	Mandatory
2. Number of Volume / LUN Supported for Remote Replications hint: Must Indicate	Numeric	Any value	N/A	Mandatory
3. Remote Replication license included	Boolean	Yes, No	N/A	Mandatory
4. Synchronized Replication Support	Boolean	Yes, No	N/A	Mandatory
5. Synchronous Replication license included	Boolean	Yes, No	N/A	Mandatory
6. Asynchronous Replication Support	Boolean	Yes, No	N/A	Mandatory
7. Asynchronous Replication license included	Boolean	Yes, No	N/A	Mandatory
8. 3-DC Zero Data Loss Support hint: (the 3DC feature provides customers with flexible and powerful data Disaster Recovery (DR) and protection functions. The multi-level data protection of the 3DC feature ensures data integrity and availability if a disaster occurs.)	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
9. 3-DC Zero Data Loss License included	Boolean	Yes, No	N/A	Mandatory
10. Support for Three Site Replication Topology (A-B-C) hint: Indicate as applicable to make/model of product	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
11. Support for Three Site Replication Topology (A-B and A-C)	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
12. Seamless Change of Replication Topology from (A-B-C) to (A-B and A-C) and Vice Versa	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
Group: Data Reduction				

Name	Type	Restrictions	Unit	Properties
1. Type of Data Reduction	Ordinal	Compression(2), Deduplication(2), Compaction(2), Pattern Removal(2), NA(1)	N/A	Mandatory,Filter
2. Methodology to achieve Data Reduction	Enumerable	H/W Level, S/W Level, Inline H/W Level, Inline S/W Level, NA	N/A	Mandatory,Filter
3. No Single point of Failure with Non-Disruptive replacement of Hardware	Boolean	Yes, No	N/A	Mandatory
4. The Storage provide Non disruptive Firmware /Microcode upgrade	Boolean	Yes, No	N/A	Mandatory
5. Firmware upgrade without any controller reboot	Ordinal	Yes(2), NA(1)	N/A	Mandatory,Filter,Golden
Group: Encryption Mode				
1. Encryption Required	Boolean	Yes, No	N/A	Mandatory,Filter,Golden
2. Type of Data at Rest Encryption	Enumerable	HW Controller Based, SW Based, Drive Based, NA	N/A	Mandatory
Group: Miscellaneous				
1. Storage management software for configuration and multi-pathing(part of the supply).	Enumerable	Yes	N/A	Mandatory
2. Multi-pathing and load balancing and fail over software (part of supply) with license for windows/Linux servers or shall support native multipathing of OS	Enumerable	Yes	N/A	Mandatory
Group: Operating Conditions				
1. Minimum Operating Temperature (Degree C) hint: Must Indicate	Numeric	>=-30	N/A	Mandatory
2. Maximum Operating Temperature (Degree C) hint: Must Indicate	Numeric	35 - 70	N/A	Mandatory
3. Minimum Storage Temperature (Degree C) hint: Must Indicate	Numeric	>=-30	N/A	Mandatory
4. Maximum Storage Temperature (Degree C) hint: Must Indicate	Numeric	35 - 70	N/A	Mandatory
5. Minimum Operating Humidity (%RH) hint: Must Indicate	Numeric	10 - 40	N/A	Mandatory

Name	Type	Restrictions	Unit	Properties
6. Maximum Operating Humidity (%RH) hint: Must Indicate	Numeric	65 - 95	N/A	Mandatory
7. Minimum Storage Humidity (%RH) hint: Must Indicate	Numeric	10 - 40	N/A	Mandatory
8. Maximum Storage Humidity (%RH) hint: Must Indicate	Numeric	65 - 95	N/A	Mandatory
Group: Group15				
1. BIS Registration under CRS of MeiTY	Boolean	Yes, No	N/A	Mandatory
2. If Yes, BIS Registration No under CRS of MeiTY otherwise indicate N/A hint: NA if not available	Text	N/A	N/A	Mandatory
3. BIS Registration Certificate shall be furnished when demanded by the buyer	Boolean	Yes, No	N/A	Mandatory
Group: Group16				
1. Storage System is compliant with IPv6	Boolean	Yes, No	N/A	Mandatory
Group: Group17				
1. Standby power consumption of System in Watt	Numeric	Any value	N/A	Mandatory
Group: Group18				
1. Scope of Supply	Enumerable	It includes installation, commissioning & integration together with all necessary software to make the system fully functional as intended.	N/A	Mandatory
Group: Group19				
1. On Site OEM Warranty	Enumerable	1, 3, 5	N/A	Mandatory,Filter,Golden