	Ν	Aajor P	roduct Category :	: Media Sto	rage Devie	:e	UNSP	S Code-	432018				
	Product Category : Enterprise SAN Storage UNSPS Code- 43201800												
	Demand Aggregation - On UNSPS Code &Code added by system thereon												
S.N o.		Type of field	Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Value 7	Value 8	Value 9	Value 10	Value 11
1	Usable Capacity of SAN System	Ch	10	30	50	100	250	350	500	750			
2	Hardware Form Factor of SAN System	Ch											
3	Type of Drive	Ch	SSD	Flash									
4	Minimum number of Front end ports	N	12	16	24	32	48	64	72	96			
5	Minimum number of back end ports	N	16	24	32	40	48						
6	Minimum No. of 10Gbps iSCSI Ports	N	4	8	16								
7	No of Contrllers available in SAN System	N	2	4	6	8	10	12	14	16			
8	Total Configurable Global Cache per controller	N	256	512	1024	2048							
9	Drive slot Scalability	N	75	100	125	190	250	500	900	1920			
10	No of Drive Slots Populated in the SAN System	N											
11	Type of Drive	Ch											
12	Capacity of Drive	N											
13	RAID Option	Ch											

14	The storage should support minimum 16 point in time copy of single source device License for locar protection should be ounded. Proposed Array shall support Synchronous replication in Active-Active mode within Metro distances. The array should allow read and write simultaneously at both sides of the metro sites for the same LUN. The replication solution must support three-way remote replication in both Concurrent and Cascaded configuration for zero-data-loss. It should be possible to change the mode from concurrent and Cascade or view versa Broad Specification of Enterprise SAN Storage System: The Storage Systems should be Enterprise Class Storage System and capacity should be supplied using SSD/Flash drives, scalable to at least 1PB usable capacity in a single storage array. The Storage should support multiple industry-standard RAID levels like RAID 5, RAID 6. The storage should we creation of single large pool of Disks which are spanning across available Backend SAS ports in order to wide stripe data across all available Controllers. The storage should be configured with minimum 8*10G iSCSUreplication, rest of the ports should be 16G FC. Storage System should have multiple Global Hot Spares. Minimum one Hot spare drive should be provided for every 50 Drives over and above the proposed capacity The storage system should be offered with minimum 2TB Global cache, i.e. entire Cache shall be available to all LUNs/devices across all controllers as a single unit. Entire cache shall be dynamically used for read and write eoperations. (Cache of 2TB means sum of the Cache memory supported by all the Storage Controllers in the Storage. Cache memory of any other device will not be considered to calculate Cache of the Storage). The storage system must be supplied with hardware SAN controller based Data-at-rest-encryption and internal key management solution. The storage should be with No Single Point of Failure (SPOF). All the component should be redundant and hot swappable including power supply, back	Ch	In-compliance with the specifications										
15	SAN Switch	Ch	Available	Not- Available									
16	Hardware Form Factor of SAN Switch	Ch											
17	No of SAN Switch Provided With the Sorage System	N	1	2	4	NA							
18	If Available, Type of SAN Switch (@ 16 Gbps FC)	Ch	12 Ports	14 Ports	16 Ports	24 Ports	48 Ports	64 Ports	128 Ports	192 Ports	256 Ports	NA	
19	No of Active Ports in the SAN Switch	N											
20	Additional Capacity (Compatible with main Usable Capacity of SAN)	Ν	Yes	No									
21	If Yes, Additional Capacity added	N											

22	Type of Drive used to achieve additional capacity	Ch							
23	No. of Drive used to achieve additional capacity	N							
24	Capacity of each Drive to achieve additional Capavity	N							
25	Protocols Supported by the Storage from day 1	Ch							
26	Operating System Platforms and Clustering Supported by the Storage from day 1	Ch							
27	Support for NAS (Unified Storage)	Ch	Yes	No					
28	Deduplication	Ch	Yes	No					
29	Inline Compression	Ch	Yes	No					
30	Compatibility with other storage for the purpose of Replication	Ch	Yes	No					
31	Remote Replication and 3 way DR capability	Ch	Yes	No					
32	Operating Temp. Range	Ch							
33	Storage Temp. Range	Ch							
34	Operating Humidity (Rh)	Ch							
35	Storage Humidity (Rh)	Ch							
36	BIS registration under CRS of MeiTY	Ch	Yes						
37	BIS registration No (shall be furnished when demanded by the buyer)	N							
38	Storage System is compliance with Ipv 6	Ch	Yes						
39	Standby Power Consumption of System	N							
40	Max Power Consumption of System	N							

41	Other International Certification	Ch	Yes	No					
42	If Yes, Type of Certification & Certification No (Shall be furnished when demanded by buyer)	Ch							
43	Scope of supply	Ch	It includes installation, icommissioning & integration togather with all necessary software to make the system fully functional as intended.						
44	Warranty	N	1	3	5				

Remarks	Valid ation Rule	Unit	Filter Reqd.
		TB	Y
Must Indicate		RU	Y
		Null	Y
		No.	Y
		No.	Y
		No.	
		No.	Y
		GB	Y
		No.	Y
Must Indicate as per design and offer of a particular model/configuration		No.	Y
Must Indicate		Null	Y
Must Indicate		GB	Y
Must Indicate like 0,1,10,3,5,6		Null	

	Null	Y
	Null	Y
Must Indicate	RU	
i.e. May choose NA in case of SAN switch 'Not- Available'	No.	
i.e. May choose NA in case of SAN switch is 'Not- Available'	Null	Y
May indicate the no. of active ports or NA in case SAN Switch is "Not-Available "	No.	
	TB	Y
Must Indicate i.e. Added capacity over base model to achieve intended capacity /offered capacity	TB	Y

Must Indicate	Null	
Must Indicate	No.	
Must Indicate	GB	
(Must Indicate i.e. FC, ISCSI, FCOE, CIFS, NFS ETC.)	Null	
Must Indicate Operating System Platforms and Clustering Supported i.e. Windows Server 2008/2012 (Enterprise Edition, SUN Solaris, HP- UX, IBM AIX, Enterprise LINUX etc.	Null	
Null		
Must Indicate	Degree C	
Must Indicate	Degree C	
Must Indicate	%	
Must Indicate	%	
	Null	
Must Clearly indicate about the BIS regn No	Null	
	Null	
Must indicate	Watt	
Must Indicate	Watt	

	Null	
Must clearly indicate about the certifications available	Null	
	Null	
	Year	Y