Sub-Category:- Hyper Converged Infrastructure for Data Centers (UNSPC CODE: 81112003) (ITC_HS Code: 84714900)

S.No	General Parameters		Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Validation Rule	Whether Filter required	Unit
1	Datacenter HW Build /Type	Ch	"Hyper Coi	nverge Infra		Yes					
2	Hardware / Software Domain / Type	Ch	Compute (Only Node	Storage Node HO	-	Generic Node HCI (Consisting Both Compute and Storage)			Yes	
3	Name of the OEM	Ch							Must Declare		
4	OEM Model / Part No.	Ch							Must Declare		
5	Product Id of OEM	Ch							Must Declare		
6	Software Description, Functionality/ Features	Ch							Must Declare		
7	Software Version	Ch							Must Declare		
8	Date of Launch of Version	Ch							Must Declare		
9	Number of Virtual Machines offered per Node	N	0	8	10	12	16	20		Yes	nos
10	per Virtual Machine	N	0	2	4					Yes	nos
11	RAM (Memory) offered per Virtual Machine	N	0	4	8					Yes	GB
12	Storage offered per Virtual Machine	N	0	100			400	500		Yes	GB
13	S	N	0	10	20	40	100			Yes	TB
14	Number of years of service and support from OEM	N	3	5	7					Yes	Years
15	Minimum number of USB 2.0 Ports in an appliance:	N	0	1	2					Yes	Number
16	Minimum number of 1Gbps Onboard Network Card in an appliance:	N	0	1						Yes	Number
17	Maximum cluster scalability	Ch	8 Nodes or more	or more	32 Nodes or more	64 Nodes or more				Yes	
18	Hypervisor to be integrated with SDS	Ch	Within Kernel	Outside Kernel						Yes	
19	The storage sub-system in the HCI cluster be run on an independent VSA(virtual storage appliance) within each node.	Ch	Yes	NO						Yes	
20	Type of ports offered per node	N	10Gbps:S FP+	10Gbps:10 GBase-T	40Gbps :SFP+					Yes	Number
21	Minimum number of ports required for (10Gbps:SFP+ / 10Gbps:10BBase-T):	N	0	2	4	6				Yes	Number
22	Minimum number of 40G SFP+ ports required per Node	N	0	1	2	4	6				Number
23	Hyperconverged Infrastructure to be software defined or Hardware Defined	Ch	Defined	Hardware Defined						Yes	
24	Bare-metal / Non Bare metal type of virtualization hypervisor	Ch	Bare Metal	Non Bare Metal						Yes	

Sub-Category:- Hyper Converged Infrastructure for Data Centers (UNSPC CODE: 81112003) (ITC_HS Code: 84714900)

S.No	General Parameters		Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Validation Rule	Whether Filter required	Unit
25	Redundant components with no single point of failure in the system	Ch	Yes	NO						Yes	
26	Intelligent data distribution across all nodes and uniform capacity utilization acress all nodes at all time	Ch	Yes	NO						Yes	
	Integrated management for hyperconverged infrastructure and virtual environments with Storage/Network/Compute	Ch	Yes	NO						Yes	

Sub-Category:- Hyper Converged Infrastructure for Data Centers (UNSPC CODE: 81112003) (ITC_HS Code: 84714900)

S.No	General Parameters		Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Validation Rule	Whether Filter required	Unit
28	Infra-upgrade with One Click from one console	Ch	Yes	NO		S				Yes	
29	Management tool provides visibility of network infrastructure	Ch	_	Managem ent tool without Network Visibility	Other					Yes	
30	Compression & Deduplication on disks	Ch	SSD Only	SSD & HDD						Yes	
31	HyperConverged Infrastructure support(such as VMWare/Hyper-V/Xen Server/Hypervisor Agnostic Solution/AHV (Acropolis Hypervisor etc)	Ch							Must Declare		
32	Data Locality offered	Ch	Yes	No						Yes	
33	Support for services(iSCSI/NFS/CIFS/SMB3)	Ch	YES	NO						Yes	
34	Memory scalability per node	N	128 or more	256 or more	384 or more	512 or more	786 or more	1000 or more		Yes	GB
35	Metro Availability for zero RPO/RTO	Ch	Metro Availabilit Y Supporte d	Metro Availabilit y not Supported	Other					Yes	
36	External FC Storage connectivity		Yes	No							Yes
37	Integration with Third Party FC Storage(EMC/HITACHI/NETAPP /IBM etc)								Must Declare		Yes
38	Proposed hardware is capable to be duplicate, compress and optimize all data with fine data granualarity in kb data blocks	Ch	4	8	16	32				Yes	Kb
39	Data Integrity Checks	Ch	Yes	NO						Yes	
40	HyperConverged Infrastructure having built-in security for data	Ch	Yes	NO						Yes	
41	Two-factor authentication for security- conscious environments	Ch	Yes	NO						Yes	
42	Types of switches	Ch	2 x 48 port x 10 GbE switches	10GBE SR OPTIC	others						

Sub-Category:- Hyper Converged Infrastructure for Data Centers (UNSPC CODE: 81112003) (ITC_HS Code: 84714900)

							_	Whether				
S.No	General Parameters		Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Validation Rule	Filter required	Unit	
43	If types of swithces others category then specify the type of awitches								Must Declare			
44	If yes in the above parameter then length of cable in meter	N							Must Declare		NUMBER	
45	Processor provided in the system (such as dual intel E5 processor/SKYlake processor or higher)	Ch							Must Declare			
46	HyperConverged Infrastructure have native Self-Service Portal for catalogs provisioning	Ch	Yes	NO						Yes		
47	HyperConverged Infrastructure support container based application	Ch	Yes	NO						Yes		
48	Shadow Clones to improve multi read unique data across nodes	Ch	Yes	NO						Yes		
49	Intelligent Data Tiering across SSDs and HDDs (SSD have for capacity and caching both for optimal performance)	Ch	Yes	NO						Yes		
50	Integrated Remote Backup and Data recovery center	Ch	Yes	NO						Yes		
51	FIPS 140-2 compliance	Ch	Yes	NO						Yes		
52	HyperConverged Infrastructure support hardware agnostic architecture	Ch	Yes	NO						Yes		
53	HyperConverged Infrastructure able to integrate multi OEM hardware in different cluster	Ch	Yes	NO						Yes		
54	HyperConverged Infrastructure cluster able to expand with different CPU/Memory/Disks nodes of same OEM with single management console	Ch	Yes	NO						Yes		
55	Ability to mix different hypervisors between primary and Data recovery center datacenters (i.e. use an alternate hypervisor as a DR target)	Ch	Yes	NO						Yes		
56	Single management tool supports multiple clusters in multiple geographic locations	Ch	Yes	NO						Yes		
57	Single management tool supports any hypervisor and manages mixed hypervisor environments	Ch	Yes	NO						Yes		
58	Management tool is built into the distributed system, scales with the cluster, and does not require separate hardware infrastructure	Ch	Yes	NO						Yes		
59	Ability to automatically re-direct I/O to	Ch	Yes	NO						Yes		

Sub-Category:- Hyper Converged Infrastructure for Data Centers (UNSPC CODE: 81112003) (ITC_HS Code: 84714900)

S.No	General Parameters		Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Validation Rule	Whether Filter required	Unit
60	Data at Rest Encryption	Ch	Yes	No						Yes	
61	Selected VM Workload running from SSD	Ch	Yes	No						Yes	
62	Native File Services (For Integrated File Server)	Ch	Yes	No						Yes	
63	Network Microsegmentation	Ch	Yes	No						Yes	
64	Self-Service and Governance	Ch	Yes	No						Yes	
65	Hybrid and Multi Cloud Management	Ch	Yes	No						Yes	
66	Customizable Blueprints	Ch	Yes	No						Yes	
67	Application Lifecycle Management	Ch	Yes	No						Yes	
68	Provision to be factory integrated with the Hyper-converged appliance to ensure compatibility.	Ch	Yes	No						Yes	
69	Support Microsoft Exchange, DHCP, DNS, Active Directory applications along with SQL, Oracle Databases. Virtualization software have the	Ch	Yes	No						Yes	
70	provision to provide zero downtime, zero data loss and continuous availability for the applications running in virtual machines in the event of physical host failure.	Ch	Yes	No						Yes	
71	Support for VM or APP consistent snapshot/backup	Ch	Yes	No						Yes	
72	Automated disaster recovery orchestration	Ch	Yes	No						Yes	
73	Management platform provide out of the box automation and orchestration for appliance based operational tasks.	Ch	Yes	No						Yes	
74	All Flash Hyper-Converged	Ch	Yes	No						Yes	
75	Hybrid Hyper- Converged	Ch	Yes	No						Yes	
76	SSD cache (in GB) per node	Ch							Must Declare		
77	SSD (Raw in GB) per node	Ch							Must Declare		
78	SAS (Raw in GB) per node	Ch							Must Declare		
79	NL-SAS (Raw in GB) per node	Ch							Must Declare		
80	Installation and Demonstration	Ch	Yes	No						Yes	
81	OEM No. of days Training Provided at Site	N	1	2	3	4	5			Yes	Days
82	Hyper link to Data sheet	Ch							Must Declare		
83	User Referance no. 1 with email, phone no., where Appliance installed	Ch							Must Declare		
84	User Referance no. 2 with email, phone no., where Appliance installed	Ch							Must Declare		
85	User Referance no. 3 with email, phone no., where Appliance installed	Ch							Must Declare		