

| Major Product Category - Data Center Services (UNSPC CODE: 811120) | | | | | | | | | | | | | | |
|--|---|----|---------------------------------------|---------|-----------------------|---------|-----------------------------------|---------|-----------------|-------------------------|----------|--------|---------|--|
| Sub-Category:- Hyper Converged Infrastructure for Data Centers | | | | | | | | | | | | | | |
| Demand Aggregation | | | | | | | | | | | | | | |
| S.No | Parameters | | Value 1 | Value 2 | Value 3 | Value 4 | Value 5 | Value 6 | Validation Rule | Whether Filter required | Priority | Unit | Remarks | |
| 1 | Datacenter HW Build /Type | Ch | "Hyper Converge Infrastructure" (HCI) | | | | | | | | Yes | | | |
| 2 | Hardware / Software Domain / Type | Ch | Compute Only Node HCI | | Storage Only Node HCI | | Generic Node HCI (Consisting Both | | Must Declare | | | | | |
| 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 Required | Ch | 0 | 8 | 10 | 12 | 16 | 20 | Must Declare | Yes | | nos | | |
| 10 | Number of vCPUs (physical cores) Required per Virtual Machine | Ch | 0 | 2 | 4 | | | | Must Declare | Yes | | nos | | |
| 11 | RAM (Memory) Required Per Virtual Machine | Ch | 0 | 4 | 8 | 16 | 32 | | Must Declare | Yes | | GB | | |
| 12 | Storage Required Per Virtual Machine | Ch | 0 | 100 | 200 | 300 | | | Must Declare | Yes | | GB | | |
| 13 | Only Storage Requirement | Ch | 10 | 20 | 40 | 100 | | | Must Declare | Yes | | TB | | |
| 14 | Number of Years upto which Support is available from OEM / Franchise online | Ch | 3 | 5 | | | | | | Yes | | Years | | |
| 15 | Minimum number of IPMI Port (Hardware Management) in an appliance | Ch | 0 | 1 | | | | | | Yes | | Number | | |
| 16 | Minimum number of VGA Port (For External Display) in an appliance: | Ch | 0 | 1 | | | | | | Yes | | Number | | |
| 17 | Minimum number of USB 2.0 Ports in an appliance: | Ch | 0 | 1 | 2 | | | | | Yes | | Number | | |
| 18 | Minimum number of 1Gbps Onboard Network Card in an appliance: | Ch | 0 | 1 | | | | | | Yes | | Number | | |
| 19 | Minimum number of 10Gbps External Card-(Optional -SFP+,10GBase-T) in an appliance | Ch | 0 | 1 | 2 | | | | | Yes | | Number | | |
| 20 | Is Rack Required? | Ch | Yes | No | | | | | | Yes | | | | |
| 21 | Hyperconverged Infrastructure should be software defined without any hardware dependency | Ch | Yes | | | | | | | | | | | |
| 22 | The storage sub-system in the HCI cluster should however be run on an independent VSA(virtual storage appliance) within each node. | Ch | Yes | | | | | | | | | | | |
| 23 | Redundant components with no single point of failure in the system | Ch | Yes | | | | | | | | | | | |
| 24 | Bare-metal virtualization hypervisor | Ch | Yes | | | | | | | | | | | |
| 25 | VM to Host affinity | Ch | Yes | | | | | | | | | | | |
| 26 | VM to VM affinity & anti-affinity | Ch | Yes | | | | | | | | | | | |
| 27 | Operational Simplicity with One click provisioning | Ch | Yes | | | | | | | | | | | |
| 28 | HyperConverged Infrastructure distribute data intelligently across all nodes and capacity utilization across all nodes has to be uniform distributed at all times | | Yes | | | | | | | | | | | |

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| 29 | Integrated management for hyperconverged infrastructure and virtual environments with Storage/Network/Compute | Ch | Yes | | | | | | | | | | |

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| 30 | Infra-upgrade with One Click from one console | Ch | Yes | | | | | | | | | | |
| 31 | Management tool provides visibility of network infrastructure | Ch | Yes | | | | | | | | | | |
| 32 | Automated health checks and visual issue navigation for rapid resolution | Ch | Yes | | | | | | | | | | |
| 33 | HyperConverged Infrastructure should have native Self-Service Portal for catalogs provisioning | Ch | Yes | | | | | | | | | | |
| 34 | HyperConverged Infrastructure connectivity of 3rd party bare metal servers to HCI storage cluster & use the cluster capacity like a iSCSI over 10 Gbps | Ch | Yes | | | | | | | | | | |
| 35 | HyperConverged Infrastructure should support container based application | Ch | Yes | | | | | | | | | | |
| 36 | Compression (storage capacity savings for workloads with binary level redundancy with data blocks) | Ch | Yes | | | | | | | | | | |
| 37 | Deduplication ((storage capacity savings for workloads with redundant data sets)) | Ch | Yes | | | | | | | | | | |
| 38 | Native storage VM's snapshots with no impact to guest performance or using any additional storage capacity | Ch | Yes | | | | | | | | | | |
| 39 | Shadow Clones to improve multi read unique data across nodes | Ch | Yes | | | | | | | | | | |
| 40 | Fault Management and Rack Awareness for data for chasis redundancy | Ch | Yes | | | | | | | | | | |
| 41 | Intelligent Data Tiering across SSDs and HDDs (SSD should be used for capacity and caching both for optimal performance) | Ch | Yes | | | | | | | | | | |
| 42 | Scheduled Reporting for monitoring | Ch | Yes | | | | | | | | | | |
| 43 | Virtual graphics processing unit (GPU) support | Ch | Yes | | | | | | | | | | |
| 44 | Erasure Coding (capacity efficient data resiliency) | Ch | Yes | | | | | | | | | | |
| 45 | Tunable Redundancy (Automatic, distributed data reconstruction) | Ch | Yes | | | | | | | | | | |
| 46 | Data Path Redundancy (High availability during controller VM unavailability and upgrades) | Ch | Yes | | | | | | | | | | |
| 47 | Data Integrity Checks (Self-healing system to isolate faults and recover quickly) | Ch | Yes | | | | | | | | | | |
| 48 | Web Services API integration | Ch | Yes | | | | | | | | | | |
| 49 | Support for iSCSI | Ch | Yes | | | | | | | | | | |
| 50 | Support for NFS | Ch | Yes | | | | | | | | | | |
| 51 | Support for CIFS/SMB3 | Ch | Yes | | | | | | | | | | |
| 52 | I/O Metrics Visualization | Ch | Yes | | | | | | | | | | |
| 53 | Dynamic Resource Management (Dynamic Resource Scheduling (DRS) and load balancing for capacity management) | Ch | Yes | | | | | | | | | | |

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| 54 | Converged Local Backups using snapshots | Ch | Yes | | | | | | | | | | |
| 55 | Integrated Remote Backup and DR | Ch | Yes | | | | | | | | | | |
| 56 | Cloud Connect for backup to Microsoft Azure/Google/AWS | Ch | Yes | | | | | | | | | | |
| 57 | IPv6 support for hypervisor and VM guests | Ch | Yes | | | | | | | | | | |
| 58 | HyperConverged Infrastructure having built-in security for data | Ch | Yes | | | | | | | | | | |
| 59 | FIPS 140-2 compliance | Ch | Yes | | | | | | | | | | |
| 60 | If 'Yes', specify the security level complied | Ch | | | | | | | Must Declare | | | | Indicate level 2 or 3 or 4 |
| 61 | Two-factor authentication for security-conscious environments | Ch | Yes | | | | | | | | | | |
| 62 | Cluster lockdown by disabling interactive shell logins | Ch | Yes | | | | | | | | | | |
| 63 | HyperConverged Infrastructure should support & leverage industry standard hypervisors like VMware ESXi/Microsoft Hyper-V/ Open KVM, etc | Ch | Yes | | | | | | | | | | |
| 64 | HyperConverged Infrastructure should support hardware agnostic architecture | Ch | Yes | | | | | | | | | | |
| 65 | HyperConverged Infrastructure should be able to integrate multi OEM hardware in different cluster | Ch | Yes | | | | | | | | | | |
| 66 | HyperConverged Infrastructure cluster should be able to expand with different CPU/Memory/Disks nodes of same OEM with single management console | Ch | Yes | | | | | | | | | | |
| 67 | Ability to mix different hypervisors between primary and DR datacenters (i.e. use an alternate hypervisor as a DR target) | Ch | Yes | | | | | | | | | | |
| 68 | Ability to add and remove nodes non-disruptively | Ch | Yes | | | | | | | | | | |
| 69 | Ability to scale-out one node at a time | Ch | Yes | | | | | | | | | | |
| 70 | Platform scalability beyond hypervisor limitations (i.e. > 64 nodes) | Ch | Yes | | | | | | | | | | |
| 71 | Single management tool supports multiple clusters in multiple geographic locations | Ch | Yes | | | | | | | | | | |
| 72 | Single management tool supports any hypervisor and manages mixed hypervisor environments | Ch | Yes | | | | | | | | | | |
| 73 | Management tool is built into the distributed system, scales with the cluster, and does not require separate hardware infrastructure | Ch | Yes | | | | | | | | | | |
| 74 | Ability to automatically re-direct I/O to another Service VM in the event of the local SVM goes offline (autopathing) | Ch | Yes | | | | | | | | | | |

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| 75 | Ability to automatically recover from failures without user intervention (disk, node, etc.) | Ch | Yes | | | | | | | | | | |
| 76 | Management tool provides Predictive Analysis and Capacity Optimization | Ch | Yes | No | | | | | | Yes | | | |
| 77 | Metro Availability for zero RPO/RTO | Ch | Yes | No | | | | | | Yes | | | |
| 78 | Data at Rest Encryption | Ch | Yes | No | | | | | | Yes | | | |
| 79 | Selected VM Workload should be running from SSD | Ch | Yes | No | | | | | | Yes | | | |
| 80 | Native File Services (For Integrated File Server) | Ch | Yes | No | | | | | | Yes | | | |
| 81 | What-if analysis for New workloads and Allocation-based forecasting | Ch | Yes | No | | | | | | Yes | | | |
| 82 | File Services (Async-DR) | Ch | Yes | No | | | | | | Yes | | | |
| 83 | File Services Quota (Soft and Hard Quota) with AD integration | Ch | Yes | No | | | | | | Yes | | | |
| 84 | Network Microsegmentation | Ch | Yes | No | | | | | | Yes | | | |
| 85 | Self-Service and Governance | Ch | Yes | No | | | | | | Yes | | | |
| 86 | Hybrid and Multi Cloud Management | Ch | Yes | No | | | | | | Yes | | | |
| 87 | Customizable Blueprints | Ch | Yes | No | | | | | | Yes | | | |
| 88 | Application Lifecycle Management | Ch | Yes | No | | | | | | Yes | | | |
| 89 | Operating Environment | Ch | | | | | | | Must Declare | | | | |
| 90 | Installation and Demonstration | Ch | Yes | No | | | | | | Yes | | | |
| 91 | No. of days Training Provided at Site | Ch | 1 | 2 | | | | | | Yes | | Days | |
| 92 | Hyper link to Data sheet | Ch | | | | | | | Must Declare | | | | |
| 93 | User Reference no. 1 with email, phone no., where Appliance installed | Ch | | | | | | | Must Declare | | | | |
| 94 | User Reference no. 2 with email, phone no., where Appliance installed | Ch | | | | | | | Must Declare | | | | |
| 95 | User Reference no. 3 with email, phone no., where Appliance installed | Ch | | | | | | | Must Declare | | | | |