

(GeM Bid Reference – GEM/2017/B/21424)

Ending Date – 20/11/2017 1100 Hrs

Specification for Hyper Converged Servers in GeM

GeM Specification Parameters	Value
Form Factor	Rack
Processor Make	Intel
Max. Number Of Sockets Available On Chipset	2 per Node
Max. Number Of Sockets Populated With Processor	2 per Node
No. Of Processor	2 per Node
Processor Configuration	E5-2698 v4 series 20 core, 2.2 GHz / Skylake 6138 series 20 Core 2 Ghz or better
Number Of Core Per Processor	Min 20 (40 Per Node)
Chipset Compatible With CPU	Intel C610 / 620 or better
Motherboard (OEM compatible With CPU)	Yes
PCI Slots (Express Gen 3.0 Min.)	Optional
Max Nos Of PCI Lanes	NA
Memory (DDR4 RAM Min.)	256 GB ECC 2400 MHz DDR4 RAM per Node
DDR4 RAM Upgradable Upto (Minimum)	512 GB per Node GB or higher
DIMM Slots (Minimum)	Min 16 per Node
Hard Disk Drive Capacity	6 X 3.8 TB or 12 x 1.9 TB per Node
Hard Disk Drive RPM With SAS (hot Plug Or Better)	Should be populated with SSD (Flash) drives only
RAID Controller Caches	RAID / SDS / VSAN
RAID Controller	RAID / SDS / VSAN
RAID Controller Ports	RAID / SDS / VSAN
Video Controller (support VGA Or Above Resolution)	Optional / KVM

Keyboard	Standard
Mouse	Optical scroll
Bays (min. 2 Internal Or More Hot Plug)	Min 12 x 2.5
USB Ports (version 2.0/3.0)	NA
Certifications, Compliance & Support By Windows, Red Hat Or Novell.	Yes
DVD ROM (or Better)	NA
Networking: Dual LAN (10/100/1000) Network Card With Asset Feature Tracking & Security Management, Remote Wake Up	Yes
FC HBA Dual Port Card	Not-Available
FC HBA Dual Port Card Speed	NA (Software Defined Storage/VSAN)
Power Management	Screen blanking, hard disk & system idle mode in power on, set up password, power supply surge protected
Redundant Power Supply	Yes hot pluggable
Redundant Fan	Yes hot pluggable
Server Scalability To Be Achived Within The Box & Without Adding Nodes	Yes
Availability Of Type Test Reports Consisting Of Verification Of All The Features & Functional Parameters & Environmental Tests Sequences As Under: A. Dry Heat Test (For 16 Hrs At A Temp. Of 45 Degree C In Accordance With IS: 9000/part-3/section-5/1977). B. Cold Test(For 4 Hrs At A Temp. Of 0 Degree C In Accordance With IS: 9000/part-2/section-4/1977. C. Damp Heat Cyclic Test (For 2 Cycles Of 24 Hrs At A Temp. 40 Degree C & 95% RH In Accordance With IS: 9000/part-5/section-1/1981) Note:- The Server Shall Be Checked For All The Parameters Before Conditioning. After Completion Of The Above Environmental Tests Sequence, With A Recovery Period Of 1 To 2 Hrs, The Server Shall Be Functional.	No
Availability Of The Type Test Report From Central Govt./ NABL/ ILAC Accredited Lab. Covering Verification Of All Features & Functional Parameters & Environmental Tests Sequence.	No

Test Report No. & Date	NA
Name & Address Of Lab	NA
BIS Registration No. Under CRS Of Deity	NA
Declare SPEC Int_rate_base 2006 & Specfp_rate_2006 For 1,2,4,8 Prcessor As Applicable.	NA
Declare Max. Power Consumption Of The System	NA
Availability Of Documentary Evidence In Support Of Model Quoted In Commercial Production & Due Evaluation Completed	Yes
Details Of Benchmark Indices With Software & Diagnostic Software Used To Test Server.	NA
Server Main Supply	230V, ±10%,50 Hz
CE Or UL Certified Or Ertl/Etdc Certified For Safety (IEC-60950-1)	Yes
RoHS Compliance	Yes
Warranty	5 years with CDMR (Compressive Defective Media Retention)

Additional Features /Requirement for HCI Solution in addition	
External ports	Min 2 x 10 Gbpe SFP+ network ports
Consolidation Scope	Hypervisor/Compute Storage Management Automation-Orchestratn
Hypervisor	Bidder should provide latest version of VMware vSphere ESXi Ver 6.0U2 or higher with necessary licenses for HCI. Any quoted HCI solution required additional resources which is more than 10% of node Core/RAM capacity for integration / management purpose, same required to accumulated by the bidder/OEM in their HCI solution. Document proof for resources to be attached with other documents.
Hypervisor Interconnect	Should be based on Virtual Storage Controller / Kernel Integrated
Scale out	Should support Hyper converge Infra with integrated SD Card / Drive for hypervisor and should be configured min 3 nodes per HCI cluster. Scalable upto Min 16 nodes per Cluster.
Data corruption detection	Should be based on Read Integrity Check or Disk scrubbing software
Storage Protocols	NFS / iSCSI / VSAN
Snapshot Scope	Local or Remote
Nodes Storage	Each node should have Min (2 x 400 GB or 1 x 800 Gb) as cache SSD along with 6 x 3.84 TB / 12 x 1.9 TB SSD as capacity SSD usable per node for data. Global deduplication, compression & optimization with minimum impact on production workload and guaranteed CPU & RAM available to user application.
Availability	In the event of failure of a hard drive(SSD) running VMs should not be affected. Drive replacement should be seamless to VMs hosted. Hot pluggable redundant power supply and Fans. Solution should support snapshot and data copies.

<p>HCI Management</p>	<p>Single Management Interface for entire HCI (Compute, Network, Storage, Virtualization. Management Dashboard to display Memory, CPU and Storage utilization , provide functionality to apply patches and firmware updates non-disruptively.</p>
<p>Virtualization Software and Support</p>	<p>License of virtualization software (VMware / V Centre latest version) to be supplied as bundled for HCI appliance management. VM centric policy based backup and recovery. Preferably be factory integrated with the Hyper-converged appliance to ensure compatibility. Solution should support Microsoft Exchange, DHCP, DNS, Active Directory applications along with SQL, Oracle Databases. The virtualizations Solution must offer ability to Copy, convert, or migrate an image (P2V, V2V, V2P & P2I). Virtualization software should have the 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. Fault tolerance of VMs.</p>
<p>Switches for Inter Node Connectivity</p>	<p>2 Nos Core network switches / Network fabric having 32 or higher Ports (10 Gbps SFP+ or Base-T) with 40G uplink (4 ports). 12 SFP+ Multi Mode SR should be populated in each switch</p>
<p>Installation and Commencing</p>	<p>Installation and Configuration and support for the warranty period should be provided by the direct OEM Engg or OEM certified Engg on HCI in the data centre of CRPF at New Delhi and make it live. Complete solution implementation and commencing ownership with OEM</p>
<p>Quality Control</p>	<p>Quoted Product should be qualified as Leader Quadrant in the Magic Quadrant for Integrated Systems-2016.</p>