

Technical Specifications

1. Config 1: (2U + 2 Processors + Display Card)

Feature	Value
Processor	2 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s,
Memory Slots	Should have atleast 12 memory slots supporting atleast 2400 MHz DDR4 modules
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> HotSwappable. Capacity and RAID configuration as per following variant table.
Nos of bays	At least 8 hot swappable HDD bays.
HD controller	Support for SATA RAID 0 & 1 upto 5 ports Configured as per following variant table
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.
Optical Disk	DVD +RW Internal
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more
Expansion Slot	Minimum One PCIeGen 3.0 x8
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse
Onboard Display port	VGA, DVI, DP or HDMI (any one)
Multi Display port	NVIDIA Quadpro P4000 GPU or equivalent,FH with minimum 4 output port, all active in parallel Each card should come with 3 unit of DP to DVI-D converter and 1 unit of DP to VGA converter.
Form Factor	2U, 19" rack mountable
Cooling	Maximum number of fans supported by the Chassis.
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtualmedia support, remote KVM support with all required licences.
OS Support	MS Windows Server 2019 or later, RHEL/Centos7 64bits or later based systems
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No

	Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of LinuxOS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection
Other accessories	Power cord (2Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails

Variants Required for Config 1

Variant	HDD, RAID and OS	Total
a	No Raid, 2 TB HDD, Windows OS	9
b	No Raid, 2 TB HDD, Community edition of Linux OS	5
c	Raid 1 , 1 TB X 2 HDD, Windows OS	3
d	Raid 1 , 1 TB X 2 HDD, Community edition of Linux OS	3
Total		20

2. Config 2: (2U + 2 Processors)

Feature	Value
Processor	2 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s,
Memory Slots	Should have atleast 12 memory slots supporting atleast 2400 MHz DDR4 modules
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> HotSwappable. Capacity and RAID configuration as per following variant table.
Nos of bays	At least 8 hot swappable HDD bays.
HD controller	<u>For RAID 0, 1 and 10 Configurations:</u> Software RAID Controller with SATA RAID 0,1,10 upto5ports <u>For RAID 5configurations:</u> Add-onHardware RAID controller with 2GB cache and cache vault module. Support for SATA RAID-5 and RAID-6 upto 8 ports. Configured as per following variant table
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.
Optical Disk	DVD +RW Internal
LAN Ports	Min 4 RJ45 ports of 1000BaseTNetwork port
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more
Expansion Slot	Minimum One PCIeGen 3.0 x8
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse
Onboard Display port	VGA, DVI, DP or HDMI (any one)
Form Factor	2U, 19" rack mountable
Cooling	Maximum number of fans supported by the Chassis.
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.
OS Support	MS Windows Server 2019 or later, RHEL/Centos 7 64bits or later based systems
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at

	site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails

Variants Required for Config 2

Variant	HDD, RAID and OS	Total
a	No Raid, 2 TB HDD, Windows OS	1
b	No Raid, 2 TB HDD, Community edition of Linux OS	3
c	Raid 5, 2 TB X 5 HDD , Community edition of Linux OS	9
Total		13

Config 3: (2U + 1 Processor)

Feature	Value
Processor	1 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s
Memory Slots	Should have atleast6 memory slots supporting atleast 2400 MHz DDR4 modules
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> HotSwappable. Capacity and RAID configuration as per following variant table.
Nos of bays	At least 8 hot swappable HDD bays.
HD controller	Support for SATA RAID 0 &1 upto5 ports Configured as per following variant table
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.
Optical Disk	DVD +RW Internal
LAN Ports	Min 4 RJ45 ports of 1000BaseTNetwork port
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more
Expansion Slot	Minimum One PCIeGen 3.0 x8
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse
Onboard Display port	VGA, DVI, DP or HDMI (any one)
Form Factor	2U, 19" rack mountable
Cooling	Maximum number of fans supported by the Chassis.
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.
OS Support	MS Windows Server 2019 or later, RHEL/Centos 7 64bits or later based systems
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department

Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails

Variants Required for Config 3:

Variant	HDD, RAID and OS	Total
a	No Raid, 2 TB HDD, Windows OS	1
b	No Raid, 2 TB HDD, Community edition of Linux OS	2
c	Raid 1, 2 TB X 2 HDD , Windows OS	7
d	Raid 1, 8 TB X 2 HDD , Windows OS	2
Total		12

Config 4: (1U + 2 Processors)

Feature	Value
Processor	2 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s
Memory Slots	Should have atleast 12 memory slots supporting atleast 2400 MHz DDR4 modules
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> HotSwappable. Capacity and RAID configuration as per following variant table.
Nos of bays	At least 4 hot swappable HDD bays.
HD controller	Support for SATA RAID 0 &1 upto 5 ports Configured as per following variant table
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.
Optical Disk	DVD +RW Internal
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more
Expansion Slot	Minimum One PCIeGen 3.0 x8
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse
Onboard Display port	VGA, DVI, DP or HDMI (any one)
Form Factor	1U, 19" rack mountable
Cooling	Maximum number of fans supported by the Chassis.
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.
OS Support	MS Windows Server 2019 or later, RHEL/Centos 7 64bits or later based systems
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department

Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails

Variants Required for Config 4

Variant	HDD, RAID and OS	Total
a	No Raid, 2 TB HDD, Community edition of Linux OS	11
b	No Raid, 2 TB HDD, Windows OS	1
c	Raid 1 , 1 TB X 2 HDD, Community edition of Linux OS	18
d	Raid 1 , 1 TB X 2 HDD, Windows OS	8
Total		38

Config 5: (1U + 1 Processor)

Feature	Value
Processor	1 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s
Memory Slots	Should have atleast6 memory slots supporting atleast 2400 MHz DDR4 modules
HDD	3.5" Enterprise SATA7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> Hot Swappable. Capacity and RAID configuration as per following variant table.
Nos of bays	At least 4 hot swappable HDD bays.
HD controller	Support for SATA RAID 0 &1 upto 5 ports Configured as per following variant table
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.
Optical Disk	DVD +RW Internal
LAN Ports	Min 4 RJ45 ports of 1000BaseTNetwork port
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more
Expansion Slot	Minimum One PCIeGen 3.0 x8
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse
Onboard Display port	VGA, DVI, DP or HDMI (any one)
Form Factor	1U, 19" rack mountable
Cooling	Maximum number of fans supported by the Chassis.
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.
OS Support	MS Windows Server 2019 or better, RHEL/Centos 7 64bits or later based systems
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department

Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails

Variant Required for Config 5

Variant	HDD, RAID and OS	Total
a	No Raid, 2 TB HDD, Windows OS	3
b	No Raid, 2 TB HDD, Community edition of Linux OS	2
c	Raid 1, 2 TB X 2 HDD , Windows OS	7
d	Raid 1, 8 TB X 2 HDD , Windows OS	4
Total		16

Delivery Locations**1. Servers**

Config 1 (2U + 2 Processor + Display Card)					
Variant	Trombay	Anushaktinagar	Delhi	Gauribidanur	Total
a	0	3	3	3	9
b	2	1	1	1	5
c	0	1	1	1	3
d	0	1	1	1	3
Total	2	6	6	6	20
Config 2 (2U + 2 Processor)					
Variant	Trombay	Anushaktinagar	Delhi	Gauribidanur	Total
a	1	0	0	0	1
b	3	0	0	0	3
c	0	3	3	3	9
Total	4	3	3	3	13
Config 3 (2U + 1 Processor)					
Variant	Trombay	Anushaktinagar	Delhi	Gauribidanur	Total
a	1	0	0	0	1
b	2	0	0	0	2
c	7	0	0	0	7
d	2	0	0	0	2
Total	12	0	0	0	12
Config 4 (1U + 2 Processor)					
Variant	Trombay	Anushaktinagar	Delhi	Gauribidanur	Total
a	0	1	4	6	11
b	0	0	0	1	1
c	0	8	5	5	18
d	0	4	2	2	8
Total	0	13	11	14	38
Config 5 (1U + 1 Processor)					
Variant	Trombay	Anushaktinagar	Delhi	Gauribidanur	Total
a	0	1	1	1	3
b	2	0	0	0	2
c	0	0	3	4	7
d	0	0	2	2	4
Total	2	1	6	7	16
Gr Total	20	23	26	30	99

Terms and Condition for Bidders

1. General:

- 1.1. All components should be fitted and integrated at OEM site.
- 1.2. Make and model of Motherboard, storage disks, memory, etc. shall be clearly mentioned.
- 1.3. All components suggested shall be compatible with each other to work as a single unit with best of their individual capacity.
- 1.4. 4 port display card shall be provided with Config-1. It should give output on all 4 ports at a time (in parallel).
- 1.5. Keyboard mouse should be USB compatible.
- 1.6. The supplied equipment shall cover the warranty of 36 months from the date of final commission and acceptance by respective site In-charges.
- 1.7. Bidder shall fill and submit the attached Compliance sheets (Annexure-D) and Declaration (Annexure-E) on firm's official letter head, along with the quotation.
- 1.8. In the compliance sheet, bidder should mention exact specification, model, etc. of the offered component against each of the configuration parameter.
- 1.9. Bidder shall quote rate for each configuration/variant (along with cost of supply, I&C, etc.) separately for each delivery location. For Example, rate for Config-1/variant-a shall be quoted separately for delivery at Anushaktinagar, Delhi and Gauribidanur.

2. Bidder/OEM Evaluation Criteria:

- 2.1. Bidders will be evaluated based on their infrastructure, experience, skilled persons, inventory of spares etc. Personnel of user department may visit bidder's/OEMs premises to carry out evaluation.
- 2.2. OEM should have authorized service centre in Mumbai (including Navi Mumbai and Thane), Delhi and Bangalore. List, along with respective address and contact details, of service centers shall be provided with the offer.
- 2.3. Bidder should be authorized channel partner for the offered make.
- 2.4. Bidder should provide Manufacturer Authorization Form (MAF) specific to this tender.
- 2.5. For commercial evaluation, bids will be evaluated based on the overall cost of all the items and not on the individual item basis.
- 2.6. Percentage of local content shall be as per prevailing government notifications.

3. Demo Servers:

- 3.1. For the purpose of technical evaluation, Bidders should provide a demo server for 1U Servers (Config-4/Variant-d) and 2U servers with display card (Config-1/Variant-e) of offered model.
- 3.2. Demo server should be of the same configuration, make and model as quoted in the offer.
- 3.3. Demo server should be provided to the Purchaser either physically or remotely (over the Internet) for a minimum period of one week for evaluation purposes.
- 3.4. Servers that do not meet the technical specifications will not be considered for evaluation.
- 3.5. The demo server will be subjected to rigorous evaluation procedures by which all required specifications would be tested.
- 3.6. In case, Purchaser is not satisfied with demo server provided remotely (online access) then, bidder must provide physical access to the demo server. If bidder fails to provide physical access to the server, his case will be rejected and not be considered for further evaluation.
- 3.7. Bidder must supply demo servers for evaluation purposes within four weeks from date of opening of the technical bid of the tender. Bidders unable to provide demo servers will not be considered further.
- 3.8. Demo Servers, if provided physically, shall be delivered to Officer In-charge, IERMON Central station, CT&CRS Building, AERB Complex, Anushaktinagar, Mumbai-400094, Phone 022-25598695, sgarg@barc.gov.in, with prior intimation and appointment. After completion of the evaluation, such servers shall be picked from the same office, with prior appointment. This should be arranged by the bidder at their own cost.

4. Pre-dispatch Inspection: The following procedure will be followed during pre-dispatch inspection which will be conducted by the Purchaser's representatives at the Vendor or OEM's premises. This need to be coordinated by the Vendor. Vendor should indicate the location of the premises where pre-dispatch inspection can be carried out and the available infrastructure (electrical power, air-conditioning, floor space etc.) at the specified premises.

- 4.1. All the servers will be checked for ordered configuration, Power on test and benchmarking tests.
- 4.2. All Linux servers will be installed with Linux operating system, HPL benchmark and necessary libraries.
- 4.3. HPL benchmark will be executed for a period of 6 hours during which the performance of the system should not vary for more than 3% during this period.
- 4.4. Any component that shows degradation in performance or any other problem will have to be rectified or replaced by the Vendor immediately and the procedure will be repeated.

5. Scope of work:

5.1. At the time of Supply, installation and commissioning:

- 5.1.1. Supply, installation and commissioning of servers at 4 different sites (1. Trombay/ Mumbai; 2. Anushaktinagar/ Mumbai, 3. Delhi and 4. Gauribidanur) as per breakup given in Annexure-B. Installation and Commissioning shall be carryout as per the site specific mutually agreed time schedule.
- 5.1.2. Vendor shall disconnect and remove existing server and associated components (rails, cables, etc.), clean the installation racks and install the fresh servers in the racks, as per details/requirements given by respective Site In-charge. Removed servers, rails, etc. will be the property of the department and vendor will not have any right and claim on these items.
- 5.1.3. Vendor shall configure RAID, create required partitions and install and activate the required OS. For Windows servers, the licensed OS shall be part of this order. For servers with 'Community edition of Linux OS' or Linux Servers, user department will provide the disk of required Linux (Scientific, Red Hat, CentOS, etc.) and vendor shall install and activate the OS as per aid and advise of the respective Site In-charge.
- 5.1.4. Vendor shall connect and configure the network connections on the given servers. Details of connectivity and required configuration (IP address, etc.) shall be provided by site In-charge at the time of installation only. Material required for connections like CAT-5/CAT-6 cables, LAN switches, etc. shall be provided by user department.
- 5.1.5. Vendor shall install the major system applications like antivirus, database, etc. as per the requirements given by respective site In-charge. The software will be provided by user department.
- 5.1.6. Installation of user designed software applications shall be done by user department. Vendor may be asked to provide necessary support for the same.
- 5.1.7. Vendor shall provide the Recovery media (2 per site) and OS media (2 per site), along with the copy of licenses (both 16 core and dual core) activated at respective sites.
- 5.1.8. Vendor has to ensure that all the servers are configured properly, mainly in terms of hardware, OS and network compatibility. In case of any issue, vendor needs to resolve the same.
- 5.1.9. Userdepartment will provide necessary racks, PDUs, network switches for installation of the servers.

5.2. During Warranty period

- 5.2.1. During the warranty period, vendor shall carryout routine preventive maintenance of the supplied servers on yearly basis. Preventive Maintenance activity shall include cleaning of the equipment, checking of health of equipment, updating of patches/service packs, carrying of systems diagnostic tests and taking remedial action, etc.
- 5.2.2. During warranty period, Complaint may be registered by call, mail or any other mode of communication. Vendor shall communicate the details (phone numbers, email and address) of their customer care for registering the call. Vendor shall also furnish escalation matrix of officers to be informed/communicated if problem is not satisfactory resolved. It may be noted that resolution of complaints within stipulated time will be responsibility of the vendor. Hence, any coordination with the OEM shall be done by the vendor only. Userdepartment will not coordinate directly with OEM. It may be noted that the supplied servers cannot be allowed for remote access over internet.
- 5.2.3. The vendor shall keep the system in up-to-date condition with required fault mitigation exercises, with the objective to attain system availability not less than 99%.
- 5.2.4. The cost of maintenance, repair and replacement of the servers should be included in the supply and warranty cost of the servers and shall include cost of labour, faulty parts/complete equipment replacement with new parts/equipment, including plastic parts etc.
- 5.2.5. For defective hard disk/SSD, the vendor will provide the new hard disk/SSD, as the case may be, at no extra cost. Defective hard disk/SSD will not be returned and will become the property of user department. Other than Hard-disks/SSD, other faulty and replaced parts will become the property of the vendor. These parts may be returned to the vendor after due procedures and certification from competent authority in user department. In case of replacement, the vendor has to supply new equipment/parts of equivalent standard including plastic parts and will be automatically covered under the main warranty.
- 5.2.6. Immediate resolution of problem and keeping H/W, S/W uptime up to 99 % (in every quarter) is a key factor. The vendor has to provide standby hardware in case corrective maintenance takes more than 24 hrs. The standby equipment arrangement will be allowed for maximum of 15 days only.
- 5.2.7. An uptime figure of less than 95% may be considered as sufficient ground to consider services as unsatisfactory and site in-charge may, at his sole discretion, levy penalty, in which case the balance payment, if any, will be made after recovery of necessary penalty. Further, unsatisfactory service would also lead to encashment of PBG, if any.

5.2.8. Vendor may keep recommended spares at his offices near to all the installation sites, to attend the system within least possible time.

6. Acceptance Criteria:

For final acceptance of servers at the installation site, each will be installed and rigorously tested for one week by executing benchmark program continuously. During the acceptance period of one week, each server should have minimum of 99.5% uptime and deliver the HPL performance with 3% variation in performance.

7. Deputation of Qualified Man-power:

- 7.1. Vendor shall depute qualified and experienced man-power, suitable to install, configure and attend the systems covered in this order, on his own payroll.
- 7.2. Vendor is responsible to make arrangement for 'On-Priority' attending of the call/complaints under this contract. This may include either permanent deputation of onsite engineers or allocation of team of identified engineers on priority. In later case, name and contact numbers of engineers shall be informed to respective site in-charges in advance.
- 7.3. The working sites of the user department are in the restricted areas. Vendor should provide the copy of Identity Card and police verification certificate (PVC) of all their engineers/personnel involved for work at site, under this order. All service engineers must have a valid ID card. In case the service engineer is not vendor's employee but an expert from particular OEM or their service centre or other, he/she must be accompanied by vendor's representative. All such representatives should have clear police verification, at their own arrangement.
- 7.4. The service Engineers must have a minimum of three years' experience of hardware and operating system (Linux and Windows) maintenance.

8. Guaranteed Repair time:

- 8.1. The vendor shall attend the service call preferably on the same day itself, if the service call is received in the forenoon and in the forenoon of next working day if the service call is received in the afternoon.
- 8.2. The fault should be rectified within 2 working days after reporting of the complaint. If any of the equipment cannot be repaired within this period of 2 working days, the Vendor should provide temporary replacement for the same. The original equipment should be re-installed within the period of 15 days. In case the equipment is not repairable, Vendor shall give a permanent replacement for the same. The replaced equipment should be of same/equivalent or better configuration as the original equipment.

9. Penalty:

9.1. In case of the stipulated repair time not being adhered to, the following penalty shall be imposed:

9.1.1. Beyond 2 working days and up to 7 working days penal liability will be 0.2% of the supply value of that equipment. Beyond 7 working days and up to 10 working days the penalty will be 0.5%. Beyond 10 working days and up to 15 working days the penalty will be 1.0% and above 15 working days it will be 2.0%. Penalties are in terms of percentage of supply value of the corresponding equipment.

9.1.2. If the equipment is not repaired and/or replaced even after 1 month, penalty of 2.0% of the supply value for that equipment shall be charged per quarter.

9.1.3. If the equipment is not repaired and/or replaced even after 6 months, vendor needs to supply new and equivalent equipment in place of faulty one. In case vendor fails to supply the new equipment, 100% supply value for that equipment shall be charged as penalty.

9.1.4. A penalty of 1.0% of supply value will be charged in case preventive maintenance is not undertaken for that equipment. In preventive maintenance is not undertaken for any of the supplied system, penalty of 1.0% of PO value will be charged for every such instances (yearly basis).

9.2. The applicable penalty will be recovered from the PSDBG.

9.3. On the last day of the warranty period or on termination of the contract, all the systems shall be in perfect working condition, failing which the full cost of repairs, if any incurred, will be recovered from the PSDBG.

10. The vendor will not sub-contract or permit any personnel other than his own or OEM's service personnel to perform any work, service or other activities required under this order without the prior written consent of the user department.

11. Professionals of the vendor will maintain the confidentiality of data stored on the servers. The vendor will be required to take appropriate actions against his professionals to ensure that obligations of non-use and non-disclosure of confidential information is complied with strictly.

Compliance Sheets
(On firm's official letter head)

Compliance Sheet for Config-1 Servers			
Parameter	Reference Value	Complied (Yes/No)	Offered value
Make & Model	Not Mentioned		(Specify)
OEM's Qualification	OEM's Service Centers at Mumbai, Delhi and Bangalore		(Submit supporting document)
	Manufacturer Authorization Form (MAF), specific to this tender, is submitted		(Submit MAF)
Bidder's Offices	Bidders Offices at Mumbai, Delhi and Bangalore (Not mandatory)		(Submit supporting document)
Processor	2 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher		(Specify)
Memory	32 GB RDIMM, 2933MT/s, Dual Rank32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speed atleast 2400MT/s,		(Specify)
Memory Slots	Should have atleast 12 memory slots supporting atleast 2400 MHz DDR4 modules		(Specify)
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> Hot Swappable. Capacity and RAID configuration as per following variant table.		(Specify)
Nos of bays	At least 8 hot swappable HDD bays.		(Specify)
HD controller	Support for SATA RAID 0 &1 upto 5 ports Configured as per following variant table		(Specify)
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.		(Specify)
Optical Disk	DVD +RW Internal		(Specify)
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port		(Specify)
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more		(Specify)
Expansion Slot	Minimum one PCIe Gen3.0 x8		(Specify)
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse		(Specify)
Onboard Display port	VGA, DVI, DP or HDMI (any one)		(Specify)
Multi Display port	NVIDIA Quadpro P4000 GPU or equivalent,FH with minimum 4 output port, all parallely active		(Specify)
Form Factor	2U, 19" rack mountable		(Specify)
Cooling	Maximum number of fans supported by the Chassis.		(Specify)
Power	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz		(Specify)

Supply	input		
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.		(Specify)
OS Support	MS Windows Server 2019 or later, RHEL/Centos7 64bits or later based systems		(Specify)
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of LinuxOS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department		(Specify)
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in T&C)		(Specify)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection		(Specify)
Other accessories	Power cord (2 Nos, 1 X C13 toC14 and 1 X C13 to Type D connector), rack mounting sliding rails		(Specify)
Variant- a	No Raid, 2 TB HDD, Windows OS		(Specify)
Variant- b	No Raid, 2 TB HDD, Community edition of Linux OS		(Specify)
Variant- c	Raid 1 , 1 TB X 2 HDD, Windows OS		(Specify)
Variant- d	Raid 1 , 1 TB X 2 HDD, Community edition of Linux OS		(Specify)
Any other details wish to specify	Not Mentioned		(Specify)

Compliance Sheet for Config-2 Servers			
Parameter	Reference Value	Complied (Yes/No)	Offered value
Make & Model	Not Mentioned		(Specify)
OEM's Qualification	OEM's Service Centers at Mumbai, Delhi and Bangalore		(Submit supporting document)
	Manufacturer Authorization Form (MAF), specific to this tender, is submitted		(Submit MAF)
Bidder's Offices	Bidders Offices at Mumbai, Delhi and Bangalore (Not mandatory)		(Submit supporting document)
Processor	2 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher		(Specify)
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s,		(Specify)
Memory Slots	Should have atleast 12 memory slots supporting atleast 2400 MHz DDR4 modules		(Specify)
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> Hot Swappable. Capacity and RAID configuration as per following variant table.		(Specify)
Nos of bays	At least 8 hot swappable HDD bays.		(Specify)
HD controller	<u>For RAID 0, 1 and 10 Configurations:</u> Software RAID Controller with SATA RAID 0,1,10 upto 5 ports <u>For RAID 5 configurations:</u> Add-on Hardware RAID controller with 2GB cache and cache vault module. Support for SATA RAID-5 and RAID-6 upto 8 ports. Configured as per following variant table		(Specify)
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.		(Specify)
Optical Disk	DVD +RW Internal		(Specify)
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port		(Specify)
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more		(Specify)
Expansion Slot	Minimum one PCIe Gen3.0 x8		(Specify)
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse		(Specify)
Onboard Display port	VGA, DVI, DP or HDMI (any one)		(Specify)
Form Factor	2U, 19" rack mountable		(Specify)
Cooling	Maximum number of fans supported by the Chassis.		(Specify)
Power	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz		(Specify)

Supply	input		
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.		(Specify)
OS Support	MS Windows Server 2019 or later, RHEL/Centos 7 64bits or later based systems		(Specify)
Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department		(Specify)
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)		(Specify)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection		(Specify)
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails		(Specify)
Variant- a	No Raid, 2 TB HDD, Windows OS		(Specify)
Variant- b	No Raid, 2 TB HDD, Community edition of Linux OS		(Specify)
Variant- c	Raid 5, 2 TB X 5 HDD , Community edition of Linux OS		(Specify)
Any other details wish to specify	Not Mentioned		(Specify)

Compliance Sheet for Config-3 Servers			
Parameter	Reference Value	Complied (Yes/No)	Offered value/Remark
Make & Model	Not Mentioned		(Specify)
OEM's Qualification	OEM's Service Centers at Mumbai, Delhi and Bangalore		(Submit supporting document)
	Manufacturer Authorization Form (MAF), specific to this tender, is submitted		(Submit MAF)
Bidder's Offices	Bidders Offices at Mumbai, Delhi and Bangalore (Not mandatory)		(Submit supporting document)
Processor	1 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher		(Specify)
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s		(Specify)
Memory Slots	Should have atleast6 memory slots supporting atleast 2400 MHz DDR4 modules		(Specify)
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> Hot Swappable. Capacity and RAID configuration as per following variant table.		(Specify)
Nos of bays	At least 8 hot swappable HDD bays.		(Specify)
HD controller	Support for SATA RAID 0 &1 upto 5 ports Configured as per following variant table		(Specify)
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.		(Specify)
Optical Disk	DVD +RW Internal		(Specify)
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port		(Specify)
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more		(Specify)
Expansion Slot	Minimum one PCIe Gen3.0 x8		(Specify)
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse		(Specify)
Onboard Display port	VGA, DVI, DP or HDMI (any one)		(Specify)
Form Factor	2U, 19" rack mountable		(Specify)
Cooling	Maximum number of fans supported by the Chassis.		(Specify)
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input		(Specify)
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.		(Specify)
OS Support	MS Windows Server 2019 or later, RHEL/Centos 7 64bits or later based systems		(Specify)

Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department		(Specify)
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)		(Specify)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection		(Specify)
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails		(Specify)
Variant- a	No Raid, 2 TB HDD, Windows OS		(Specify)
Variant- b	No Raid, 2 TB HDD, Community edition of Linux OS		(Specify)
Variant- c	Raid 1, 2 TB X 2 HDD , Windows OS		(Specify)
Variant- d	Raid 1, 8 TB X 2 HDD , Windows OS		(Specify)
Any other details wish to specify	Not Mentioned		(Specify)

Compliance Sheet for Config-4 Servers			
Parameter	Reference Value	Complied (Yes/No)	Offered value
Make & Model	Not Mentioned		(Specify)
OEM's Qualification	OEM's Service Centers at Mumbai, Delhi and Bangalore		(Submit supporting document)
	Manufacturer Authorization Form (MAF), specific to this tender, is submitted		(Submit MAF)
Bidder's Offices	Bidders Offices at Mumbai, Delhi and Bangalore (Not mandatory)		(Submit supporting document)
Processor	2 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher		(Specify)
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s		(Specify)
Memory Slots	Should have atleast 12 memory slots supporting atleast 2400 MHz DDR4 modules		(Specify)
HDD	3.5" Enterprise SATA 7.2K RPM HDD with minimum MTBF of 2 million Hours Set 1 (for OS): 2X500GB or higher with RAID-1, Hot swappable Set 2 (For Data):Hot Swappable. Capacity and RAID configuration as per following variant table.		(Specify)
Nos of bays	At least 4 hot swappable HDD bays.		(Specify)
HD controller	Support for SATA RAID 0 &1 upto 5 ports Configured as per following variant table		(Specify)
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.		(Specify)
Optical Disk	DVD +RW Internal		(Specify)
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port		(Specify)
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more		(Specify)
Expansion Slot	Minimum one PCIe Gen3.0		(Specify)
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse		(Specify)
Onboard Display port	VGA, DVI, DP or HDMI (any one)		(Specify)
Form Factor	1U, 19" rack mountable		(Specify)
Cooling	Maximum number of fans supported by the Chassis.		(Specify)
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input		(Specify)
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.		(Specify)
OS Support	MS Windows Server 2019 or later, RHEL/Centos 7 64bits or later based systems		(Specify)

Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department		(Specify)
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)		(Specify)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection		(Specify)
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails		(Specify)
Variant- a	No Raid, 2 TB HDD, Community edition of Linux OS		(Specify)
Variant- b	No Raid, 2 TB HDD, Windows OS		(Specify)
Variant- c	Raid 1 , 1 TB X 2 HDD, Community edition of Linux OS		(Specify)
Variant- d	Raid 1 , 1 TB X 2 HDD, Windows OS		(Specify)
Any other details wish to specify	Not Mentioned		(Specify)

Compliance Sheet for Config-5 Servers

Parameter	Reference Value	Complied (Yes/No)	Offered value
Make & Model	Not Mentioned		(Specify)
OEM's Qualification	OEM's Service Centers at Mumbai, Delhi and Bangalore		(Submit supporting document)
	Manufacturer Authorization Form (MAF), specific to this tender, is submitted		(Submit MAF)
Bidder's Offices	Bidders Offices at Mumbai, Delhi and Bangalore (Not mandatory)		(Submit supporting document)
Processor	1 X Intel Xeon Silver Processor 4210R 2.4GHz, 10C/20T, 9.6GT/s, 13.75M Cache, Turbo, HT (100 W) DDR4-2400 or higher		(Specify)
Memory	32 GB RDIMM (with minimum 4 modules, i.e. 4x8GB), speedatleast2400MT/s		(Specify)
Memory Slots	Should have atleast6 memory slots supporting atleast 2400 MHz DDR4 modules		(Specify)
HDD	3.5" Enterprise SATA7.2K RPM HDD with minimum MTBF of 2 million Hours <u>Set 1 (for OS):</u> 2X500GB or higher with RAID-1, Hot swappable <u>Set 2 (For Data):</u> Hot Swappable. Capacity and RAID configuration as per following variant table.		(Specify)
Nos of bays	At least 4 hot swappable HDD bays.		(Specify)
HD controller	Support for SATA RAID 0 &1 upto 5 ports Configured as per following variant table		(Specify)
Motherboard	Intel C620 series or better. Should support Dual CPU, 10/12/16 core Xeon series processors.		(Specify)
Optical Disk	DVD +RW Internal		(Specify)
LAN Ports	Min 4 RJ45 ports of 1000BaseT Network port		(Specify)
USB	Rear: 2 xUSB 3.0 ports or more Front: 2 xUSB 2.0 ports or more		(Specify)
Expansion Slot	Minimum one PCIe Gen3.0		(Specify)
Keyboard and Mouse	Standard USB keyboard with Rupee Symbol, Optical USB mouse		(Specify)
Onboard Display port	VGA, DVI, DP or HDMI (any one)		(Specify)
Form Factor	1U, 19" rack mountable		(Specify)
Cooling	Maximum number of fans supported by the Chassis.		(Specify)
Power Supply	Dual, Redundant (1+1), Hot pluggable, 230V/50Hz input		(Specify)
Remote Server Management	Dedicated IPMI port (iDRAC, iLO, etc.) with remote power management, virtual media support, remote KVM support with all required licences.		(Specify)
OS Support	MS Windows Server 2019 or better, RHEL/Centos 7 64bits or later based systems		(Specify)

Pre loaded OS	As per following variant table For Windows OS: Windows Server 2019 Standard,16CORE,FI,No Med, No CAL, Multi Language + Additional dual-core licenses to match offered nos. of processor core. For Community edition of Linux OS: No factory loaded OS. Community edition of Redhat/Centos Linux need to be loaded at site by the vendor. Media for OS (mostly any variant of Linux like RedHat, CentOS, Scientific, etc.) shall be provided by user department		(Specify)
Warranty	3 years, onsite with NBD support (Details scope of warranty and penalty on non-compliance mentioned in Annexure-C)		(Specify)
Health Monitoring and Security	CPU, FAN, Temperature, Chassis intrusion detection		(Specify)
Other accessories	Power cord (2 Nos, 1 X C13 to C14 and 1 X C13 to Type D connector), rack mounting sliding rails		(Specify)
Variant- a	No Raid, 2 TB HDD, Windows OS		(Specify)
Variant- b	No Raid, 2 TB HDD, Community edition of Linux OS		(Specify)
Variant- c	Raid 1, 2 TB X 2 HDD , Windows OS		(Specify)
Variant- d	Raid 1, 8 TB X 2 HDD , Windows OS		(Specify)
Any other details wish to specify	Not Mentioned		(Specify)

DECLARATION

(On firm's official letter head)

In response to your enquiry _____ Dated: _____, I/We hereby submit our best offer for consideration.

I/We have gone through the Technical Specifications, variants and Terms & Conditions as mentioned in Annexure-A and Annexure-C of the your enquiry _____ Dated: _____ and its related documents very carefully and hereby declare that (please tick):

I/We agree to all the terms and conditions stipulated therein.

OR

I/We agree to all the terms and condition of stipulated therein with following denial/modifications/extension:

Condition#

Detail of Denial/Modifications/Extension

I/We agree to supply the items as per delivery locations mentioned in Annexure-B. Compliance sheets, as per Annexure –D are also attached with our offer.

The information and documents as furnished in our quotation are true to the best of our knowledge and belief.

Dated:

Signature of Bidder
(Stamp & Address of Bidder)

