TENDER DOCUMENT

TENDER FOR THE PURCHASE OF

High-End Server

UNDER

TWO BID SYSTEM

NO. 1457-19/EE-10138/ISIRD/PS

CHECK LIST

DULY FILLED CHECK LIST TO BE ATTACHED WITH THE TECHNICAL BID

Sl. No.	Particulars	Check Mark
1	Whether EMD / Tender Fees attached?	Yes/ No
2	Whether technical specifications of the quoted Computer Server attached?	Yes/ No
3	Whether catalog of the Computer Server attached?	Yes/ No
4	In case of authorized agent/distributor whether certificate/ authorization letter for the same issued by the manufacturer attached?	Yes/ No
5	Whether tender document along with all Annexures (B to G) duly signed & stamped by the authorized signatory attached?	Yes/ No
6	Whether affidavit duly attested by the Oath Commissioner/Executive Magistrate regarding non-black listing of supplier attached?	Yes/ No
7	Whether list of Institutes/Organizations where the quoted model of Computer Server supplied by the tenderer in India is attached?	Yes/ No
8	Whether split rates of each sub units are quoted?	Yes/ No
9	In case of foreign suppliers quoting directly, whether, the name of Indian agent mentioned?	Yes/ No
10	Whether compliance sheet duly filled in, signed & stamped attached?	Yes/ No
11	Whether warranty certificate duly filled in, signed & stampeled attached?	Yes/ No
12	Whether AMC certificate duly filled in, signed & stampeled attached?	Yes/ No

List of Annexures

भारतीय प्रौद्योगिकी संस्थान रोपड़
INDIAN INSTITUTE OF TECHNOLOGY ROPAR
रूपनगर, पंजाब-140001/ Rupnagar, Punjab-140001
Ph. 01881-230142, 230154, 230155 (Stores)
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NO. 1457-19/EE-10138/ISIRD/PS 23/12/2019

Notice Inviting Quotation

IIT Ropar intends to purchase the following Computer Server. You are, therefore, requested to send your sealed offer in Two Bid System as per the instructions given below:

Sl. No.	Description	Quantity
1	**High-End Server** **(Detailed specifications of above items as per Annexure-A)**	As per Annexure - A

1. Schedule of EMD :

1	**Last Date and Time of receipt of tender :**	**14.01.2020 up to 03:00 PM.**	
2	**Opening of Technical Bids on :**	**14.01.2020 at 03:30 PM.**	
3	**Tender Fee**	**₹1,180.00**	**GST@18% Inclusive**
4	**Earnest Money Deposit (EMD)**	**₹190,000.00**	

2. EMD:

EMD to be submitted in shape of DD/BG/TDR favouring 'IIT Ropar Revenue Account' payable at Ropar alongwith the Technical Bid. Offers without EMD shall not be considered.

3. Two Bid System :

(a) Technical bid consisting of all technical details alongwith commercial terms and conditions and EMD; and

(b) Financial bid indicating item-wise price for the items mentioned in the technical bid.

Technical bid and financial bid should be sealed in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed as "Technical Bid for the supply of "High-End Server" and "Financial Bid for the supply of "High-End Server" Due on < Last date and time >. Technical bids shall be opened at the first instance and evaluated by technical committee. At the second stage financial bids of the only technically qualified bidders shall be opened for financial evaluation and ranking before awarding the contract. Mixing price bid with technical bid will disqualify your bid for further evaluation.k

4. Submission of tender:

Offers addressed to the **'Registrar, IIT Ropar'** and valid for 90 days should reach the **The Deputy Registrar (S&P), M. Visvesvaraya Block, IInd Floor, Indian Institute of Technology Ropar, Permanent Campus, Rupnagar-140001** on or before the last date and time. Tenders received late shall not be considered.

5. Bidding:

a). Either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid.

b). If an agent submits bid on behalf of a Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

All offers other than those from the Principal/OEM should be supported by an authority letter from the manufacturer authorizing the supplier to tender on their behalf. In case of manufacturer a certificate or a copy thereof to the effect that the bidder is a manufacturer of the Computer Server must be accompanied with the technical bid prepared as per 'Annexure – B'.

6. Opening of Bids:

Technical bids will be opened as per the above schedule in the presence of bidders or their authorized representatives whosoever may wish to attend. In case the due date of receipt/opening of the quotation/s (technical/price) is declared a holiday in the Institute, then, the due date of receipt/opening of the quotations shall be the next working day at the same time.

7. Price Bid:

Price bid should be prepared as per 'Annexure – E'.

8. Rates Comparison:

Bidders are requested to send their rates on FOR, IIT Ropar basis in case of indigenous items and on FOB/FCA basis in case of imported items with separately mentioning CIF/CIP charges. Rates comparision will be made on Net Price (Including Freight/ Insurance/Installation/Taxes/Duties etc.) if offers are received both for indigenous and import items. If offers are received only for import items then comparison will be made on FOB/FCA basis. Rates of available foreign currency will be taken from RBI website as on the opening of the technical bids for the purpose of conversion in Indian rupees.

9. Spares:

The spare parts/wear & tear consumables, if any, required for trouble free operation of Computer Server to be quoted separately giving the full nomenclature, rate, quantity and shelf life of each item.

10. Indigenous items:

The items which can/are to be provided indigenously may be listed separately.

11. Parts of Computer Server:

Where the Computer Server is composed of several subunits/components, the rate should be quoted for each subunit/component. The Institute reserves the right to increase or decrease the number of subunits/components and number of Computer Server according to its requirements. The rates in ambiguous terms will render the quotation liable to rejection. The words “Not quoting” should be clearly written against any item of Computer Server for which the tenderer is not quoting.

12. Payment Terms:

Payment will be made to the supplier through following modes.

a). Indigenous goods:

NEFT/Cheque/Demand Draft : 90% payment within 30 days of delivery/receipt of the items at IIT Ropar and the remaining 10% after satisfactory installation/ inspection of the Computer Server at IIT Ropar and on the submission of performance bank guarantee equivalent to 10% of order value valid for warranty period + 3 months .

b). Imported goods:

Letter of credit/Telegraphic Transfer/Sight Draft – 90% payment will be made through LC/TT/SD and balance 10% after successful installation/ inspection of the Computer Server at IIT Ropar and submission of performance bank guarantee for 10% of order value, either by the principal company or by their Indian agent valid for warranty period + 3 months.

Bank charges occured outside India will be borne by the beneficiary.

13. Acceptance of Terms & Conditions:

Bidders must confirm the acceptance of all the terms and conditions of this NIQ. Any non-acceptance or deviations from the terms and conditions must be clearly mentioned. However, tenderers must note carefully that any conditional offer or any deviation from the terms and conditions of this NIQ may render the quotation liable for rejection.

14. Service Manual/Curcuit Diagram

It is specifically required that the bidders will supply all the operating & service manuals and circuit diagrams alongwith the Computer Server.

15. Power Supply:

The Computer Server should be quoted only for 220 volts and 50Hz electricity supply. The extra requirement of line voltage, current rating etc. and the optimum climate and environment required for the Computer Server must be stated precisely. Voltage stabilizers/ isolation transformers/CVT/UPS etc., as may be required shall be listed separately. The full technical specifications and literature in respect of the voltage stabilizer etc., must be furnished.

16. Guarantee/Warranty and AMC:

Duly signed and stamped certificate of at least 5 years comprehensive onsite warranty as per Annexure-G should be attached with the technical bid. Successful firm will be required to agree for payment of penalty for exceeding permissible downtime during Guarantee / Warranty period. Annual Maintenance Contract charges for 3 years after the expiry of warranty period should be quoted as per Annexure-H. The AMC shall include Spares/Consumables, periodic visits and emergency visits. The rates of AMC will be taken into consideration while making rates comparison.

17. Country of origin:

Country of origin of the quoted item should be mentioned in the offer in case of imported item.

18. Customs Duty:

IIT Ropar is exempted from the payment of Customs Duty. CDEC with DSIR certificate will be provided along with the order (If applicable).

19. Service Facility:

Bidder should mention about the service set up in India and how capable they are to provide after sales services.

20. Training:

If required, should be included in your offer without any extra cost.

21. Banker's details:

Name and address of the banker of your company should be mentioned.

22. Reference of supply:

Name and contact details of the premier educational Institutes where the quoted Computer Server has been installed in India should be attached as per Annexure-F during the last 5 years. Copies of at least two purchase orders may be attached(If possible). IIT Ropar reserves the right to inspect the Computer Server for its actual performance in any of the listed Institute. The list of installations with contact details for the last 5 years must be provided.

23. Arbitration

In the event of failure to carry out the contractual obligations, within the stipulated period or extended period and determination of the contract for any reason, violation of warranties etc. the IIT Ropar shall have the right to carry out the unfinished obligation at the exclusive cost and risk of the bidder/firm, after due notice and the difference so accrued shall be recoverable from the bidder/firm.

23.2 The provision of the Arbitration and Conciliation Act, 1996 or as at the relevant time and of rules framed there under and any statutory modifications thereof shall be deemed to apply and be incorporated in this agreement.

23.3 Upon every or any such reference, the cost of any incidentals to the reference and award(s) respectively shall be at the reasonable discretion of the Arbitrators or in the event of their not agreeing, of the Umpire appointed by them who may determine the amount thereof or direct the same to be fixed as between solicitors and client or as between parties and shall direct by whom and in what manner the same shall be borne and paid.

23.4 Panel of arbitrators will be provided by IIT Ropar out of which the bidder will have to select one.

23.5 The bidder shall have no objection if the officer who has dealt with the case at any stage is nominated as an arbitrator. Further, that one of the arbitrator's shall be Accounts Expert.

23.6 In case of vacancy being caused due to resignation, death or incapacity of the arbitrator(s) to function as such, the same shall be provided in the aforesaid manner and the new arbitrator(s) shall proceed from the stage at which vacancy is caused.

24. Jurisdiction:

The Courts of Ropar alone will have the jurisdiction to try any matter, dispute or difference between the parties arising out of this tender/contract. It is specifically agreed that no Court outside and other than Ropar court shall have jurisdiction in the matter.

25. Force Majuere:

Any failure of omission or commission to carry out the provision of this contract by the supplier shall not give rise to any claim by one party, one against the other, if such failure of omission or commission arises from an act of God; which shall include all acts of natural calamities such as fire, flood, earthquake, hurricane, or nay pestilence or from civil strikes, compliance with any statute and/or regulations of the Government, lockouts and strikes, riots, embargoes or from any political or other reason beyond the supplier's control including war (whether declared or not) civil war or stage of insurrection, provided that notice of the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to Force Majuere conditions.

26. Risk & Cost

In the event of failure to carry out the contractual obligations, within the stipulated period or extended period and determination of the contract for any reason, violation of warranties etc. the IIT Ropar shall have the right to carry out the unfinished obligation at the exclusive cost and risk of the bidder/firm, after due notice and the difference so accrued shall be recoverable from the bidder/firm.

27. The material found defective upon opening by the supplier representative in presence of Central stores personnel/indenter of IIT Ropar or not as per tendered specifications will be lifted back at the cost and risk of the supplier. The material lying in the IIT Ropar premises would be at supplier's risk and cost.

28. Liquidated Damages:

In case the firm fails to execute the supply as per the purchase order in whole or in part as per the terms and conditions of PO, IIT Ropar can impose the penalty @1% per week of the undelivered stores, subject to a maximum of 10%. It will also be open to the institute to procure the required item(s) from any other source at the risk and expense of the firm.

29. Relocation:

The supplier has to stand guaranted for the relocation of supplied Computer Server once the permanent campus of IIT Ropar gets ready for operation. Transportation of the Computer Server will be provided by the Institute.

Note: The Director, IIT Ropar reserves the right to accept/reject any or all tenders without assigning any reasons thereof and also to reject the material if the same is not found conforming to the specifications, with further right to affect risk and cost of the purchases.

Registrar

Annexure - A

High-End Server Quotation

High End Rack Server Qty 1	
Detailed Specification	
Processor(s)	Server should be populated with 2 x Intel Xeon Platinum 8260 or better - latest in the series
Chipset	Intel C620 series chipset Or Better
Processor interconnect	Two Intel Ultra Path Interconnect (UPI) links, 10.5 GT/s
Memory	Server should be configured with 512 GB memory (16 * 32 GB) 32GB RDIMM, 2933MT/s, Dual Rank or more DDR4 Registered ECC DIMMs, Server should support RDIMM /LRDIMM types, 3TB max. It should support NVDIMMs Should support registered ECC DDR4 DIMMs only
DIMM Slots	Server should support 24 DIMM Slots for complete system
Memory Property	DDR4 Registered ECC Memory
Hard Disk Drives	2* 1.2TB 10K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive & 10*3.84TB SSD SATA Read Intensive 6Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD, 7008 TBW
RAID Controller	Integrated 12Gbps SAS hardware RAID Controller supporting RAID 0, 1, 5, 6, 10, 50, 60 with 8GB Cache or Higher
Boot optimized SSDs	Boot Optimized Storage Subsystem should be supported using latest M.2 Drives.
Optical Drive	Internal / External DVD-RW should be offered with the servers
Graphics	Integrated
Gigabit Ethernet Ports	2x10G with SFP+,2x1G (2X Networking Interface Cards (LAN))
Fibre Channel Ports	Dual Port 16Gbps FC HBA
PCI Slots	Server should support up to 8 PCIe Gen 3 slots.
Redundant Power Supply	Server to be configured with 90% Plus efficient Redundant Power Supplies (Hot-plug Dual Redundant Power Supply 1100W or Higher)
Redundant Cooling Fans	Hot-swap and redundant cooling Fans to be configured in the system
Form Factor	2U or more
High Availability	Server should have Hot-plug Drives, Hot-plug Redundant Fans, Hot-plug Redundant Power Supplies & should support redundant Hypervisor SD cards.
Security	Power-on password, Serial interface control, Administrator's password, UEFI, Should support multiple customizable user accounts on management port and SSL encryption, Should also support directory services integration, TPM 1.2 TPM 1.2/2.0 optional, Cryptographically signed firmware, BIOS should support authentication of each component that is executed during the boot process using certificates, BIOS should have the ability to disable the power button function.
Server Management	System management should help in managing server in physical, virtual, local and remote environment, operating in -band or out of band, with or without a system management software agent. It should also integrate with and connects to third party system management solution so that we can have single point of control.
Warranty	Three Year NBD Support from OEM+ 2 years extended warranty
OS	Red Hat Enterprise Linux 8.0 Factory Install,x64,
	Red Hat Enterprise Linux, 1-2SKT, Physical Node, 5YR Premium Subscription, with up to 1 Virtual Guest
OS Support	Windows 2012, Ubuntu, RedHat, SUSE Linux, KVM Hypervisor latest version, VMWare ESX / ESXi latest version, KVM
Industry standard Compliance	ACPI 2.0, Microsoft Logo certifications, USB 2.0 & 3.0 Support, PCIe 3.0, WOL support, Energy Star, UL and FCC, RoHS Compliant
	All Connectivity should be on the Fiber Cable as per actual requirement. Bidder to ensure that entire solution should be configured with redundant 10G fibre connectivity and the required cabling, Transceivers and accessories to be provided

High End Rack Server With GPU Qty : 1	
Detailed Specification	
Processor(s)	Server should be populated with 2 x Intel Xeon Platinum 8260 or better - latest in the series
Chipset	Intel C620 series chipset Or Better
Processor interconnect	Two Intel Ultra Path Interconnect (UPI) links, 10.5 GT/s
Co Processor / GPU	NVIDIA Tesla V100 32G Passive GPU
Memory	Server should be configured with 256 GB memory (8 * 32 GB) 32GB RDIMM, 2933MT/s, Dual Rank or more DDR4 Registered ECC DIMMs, Server should support RDIMM /LRDIMM types, 3TB max Should support NVDIMMs Should support registered ECC DDR4 DIMMs only
DIMM Slots	Server should support 24 DIMM Slots for complete system
Memory Property	DDR4 Registered ECC Memory

Hard Disk Drives	2* 1.2TB 10K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive
RAID Controller	Integrated 12Gbps SAS hardware RAID Controller supporting RAID 0, 1, 5, 6, 10, 50, 60 with 8GB Cache or Higher
Boot optimized SSDs	Boot Optimized Storage Subsystem should be supported using latest M.2 Drives.
Optical Drive	Internal / External DVD-RW should be offered with the servers
Graphics	Integrated
Gigabit Ethernet Ports	2x10G with SFP+,2x1G (2X Networking Interface Cards (LAN))
Fibre Channel Ports	Dual Port 16Gbps FC HBA
PCI Slots	Server should support up to 8 PCIe Gen 3 slots.
Redundant Power Supply	Server to be configured with 90% Plus efficient Redundant Power Supplies (Hot-plug Dual Redundant Power Supply 1100W or Higher)
Redundant Cooling Fans	Hot-swap and redundant cooling Fans to be configured in the system
Form Factor	2U or more
High Availability	Server should have Hot-plug Drives, Hot-plug Redundant Fans, Hot-plug Redundant Power Supplies & should support redundant Hypervisor SD cards.
Security	Power-on password, Serial interface control, Administrator's password, UEFI, Should support multiple customizable user accounts on management port and SSL encryption, Should also support directory services integration, TPM 1.2 TPM 1.2/2.0 optional, Cryptographically signed firmware, BIOS should support authentication of each component that is executed during the boot process using certificates, BIOS should have the ability to disable the power button function.
Server Management	System management should help in managing server in physical, virtual, local and remote environment, operating in -band or out of band, with or without a system management software agent. It should also integrate with and connects to third party system management solution so that we can have single point of control.
Warranty	Three Year NBD Support from OEM+ 2 years extended warranty
OS	Red Hat Enterprise Linux 8.0 Factory Install,x64,
	Red Hat Enterprise Linux, 1-2SKT, Physical Node, 5YR Premium Subscription, with up to 1 Virtual Guest
OS Support	Windows 2012, Ubuntu, RedHat, SUSE Linux, KVM Hypervisor latest version, VMWare ESX / ESXi latest version, KVM
Industry standard Compliance	ACPI 2.0, Microsoft Logo certifications, USB 2.0 & 3.0 Support, PCIe 3.0, WOL support, Energy Star, UL and FCC, RoHS Compliant
	All Connectivity should be on the Fiber Cable as per actual requirement. Bidder to ensure that entire solution should be configured with redundant 10G fibre connectivity and the required cabling, Transceivers and accessories to be provided

Technical Specification for 12 Port 10 Gig SFP+ Layer 3 switch, Qty : 4	
General	Descriptions
Device Type:	Switch should be chassis or fixed form factor with full Enterprise Layer 3 image supporting IPv6 and BGP with the latest Firmware as available with Line rate non-blocking performace.
Ports Scalability	The switch should support 12 x SFP+ interfaces and 3 x QSFP28 interfaces.
Port Requirement	Each switch to be supplied with following Optic, DAC cables for 10G/40G as mentioned with appropriate Port licenses as requried
	100GbE AOC 5 meter cable - 01 nos used for Interswitch connectivity to form HA per switch
	10G-LR optic - 12 nos per switch, 1G-LX optic - 4 nos per switch Per Switch.
	1Gig RJ45 optic - 4 nos per switch
High Availability	The switch should support HA options in Active - Active or Active Backup configuraiton as requried, all supporting features and licenses to be provided to support the same.
Intercore connectivity	The switches should be interconnected to offer linerate speed as desirable.
Interfaces to connect Switch	The switch should support relevant 1G/10G/25G/40G interfaces to connect Distibution/Access Switch.
Performance	
Switching Capacity	Minimum 840 Gbps backplane or more with non blocking performance supported by tolly/Miercom or equivalent reports.
MAC Address Table Size	Minimum 128K MAC addresses and ARP table
Memory and Buffer	Switch should have 4GB RAM and 12MB packet buffer
802.1Q Vlans	4K 802.1Q vlans with 4K vlan ID support
Networking Features	
Data Link Protocol:	Gigabit Ethernet, 10 Gigabit,25 Gigabit, 40 Gigabit, 100Gigabit
Routing Protocol:	Should support L3 routing in hardware for both IPv4 and IPv6 packets
	Should support 64K route table capacity for IPv4 and IPv6 in hardware.
	Should support Static Route, OSPF, BGP from Day one for both IPv4 and IPv6 considering all License, software, hardware upgrades required if any.
Link Aggregation	Should support 8 ports upto max 128 LAG groups, should be able to LAG across switches

Advance features	Switch should have BGP-EVPN, VRF, VXLAN, PFC, ETS, DCBX, ISCSI, FCOE, ECN etc
Status Indicators:	Link activity, port transmission speed, port duplex mode, power, link OK, system
Compliant Standards:	IEEE 802.3, IEEE 802.3u, IEEE 802.3z, IEEE 802.1D, IEEE 802.1Q, IEEE 802.3ab, IEEE 802.1p, IEEE 802.3x, IEEE 802.3ad (LACP), IEEE 802.1w, IEEE 802.1x, IEEE 802.1s, 802.3ae 10 Gigabit Ethernet, 802.3ba 40Gigabit Ethernet, 802.1p L2 Prioritization, 802.1Q VLAN Tagging, GVRP, 802.1D Bridging, GARP, GVRP, 802.3x Flow Control, 802.1ac Frame Extension for VLAN tagging, 802.1x Port based Network Access Control
DHCP	Should support DHCP (Client, Snooping and Relay), with UDP helper
Multicast	MLD Snooping v1/v2, MLD snooping, IGMP Snooping v1/v2/v3, PIM technologies
Redundancy Protocols	Should support STP, RSTP, MSTP/PVST, Root Guard and BPDU Guard.
	Should support technologies similar to VLT, MLAG, ECMP etc
Qos	Should support and create Policy Maps using DSCP values, QoS Rate Adjustment, Strict-priority Queueing, Weighted Random Early Detection, minimum 8 queues using 802.1p or similar
	should support remarking of 802.1p and DSCP priorities, along with Prioritization and Congestion Management.
Security Features	
	Should support all AAA functions with RADIUS and TACACS integration.
	Should support various strom control functions.
	Should support Control Plane / CPU protection using ACL and Qos.
	Should support 802.1x implementation using RADIUS
	Should support Ingress and Egress Acls
	Should be capable to support NAC implementation
Management Function	
Configuration	Should support encrypted communication between the user accessing the device namely using all access methods CLI, SSHv2, SSL, and SNMPv3 and Secure FTP/TFTP
	Support be able to define various user Priviliege level mapped to various configurations modes.
	Should support features like LLDP, LLDP-MED or equivalent
	The Operating image should be modular in architecture with the industry standard CLI would be preferred along with SNMP and XML support.
	XML/PERL/Python/API integration support should provide the ability to control IP addresses, configure both physical and logical interfaces, configure Access controls.
	The proposed switch should have the ability to disaggregate software and hardware using SDN feature and ONIE initiatives or equivalent.
	The Switch OS should provide Rest API integration and can work with configuration automation tools like Ansible, SALT, CHEF Etc.
	System events and alarms with alarm list persistent and retains the archived events after a reload, reboot, or upgrade. The list can store a minimum of 50,000 events or 30 days of events.
	Should support Openflow to integrate with open source controllers
	Should support sFlow or equivalent
	Should support management vlans and Port namings to each interfaces
	Should support Link Layer Discovery protocols
	Should support multiple configuration and system files
	Should support management function like Ping, Telnet, Tracert for both IPv4 and IPv6
Miscellaneous	
Physical parameter of switch	
Hardware	Switch should have 4 GB RAM, 4 GB SSD/Flash and 12MB packet buffer
Voltage Required:	AC 120/240 V (50/60 Hz)
Redundancy	The proposed switch should be offered FANs module and Power supply Redundancy.
operating specifications	Operating temperature: 32° to 104°F (5° to 40°C)
Voltage Required:	AC 120/240 V (50/60 Hz)
Datacenter Cooling	The proposed switch hardware design FAN should offer front to back air flow mechanism to manage the hot/cold aisle environments in the server room.
Compliant Standards:	
	Should be ROHS Compliant, IPv6 Ready for both Host and Router,
Safety	UL/CSA 60950-1, Second Edition EN 60950-1, Second Edition
Immunity	EN 300 386, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3,EN 61000-4-4,EN 61000-4-5,EN 61000-4-6 or equivalent standards
Warranty and Support SLA	OEM warrant for 5 year 24x7 Next Business Day
	Bidder to ensure that entire solution should be configured with redundant 10G fibre connectivity and the required cabling, Transceivers and accessories to be provided

Specification of Blade Servers Qty : 4	
General	Descriptions
Processor	Should be configured with 2 X Intel Xeon Gold 6230 2.1G, 20C/40T, 10.4GT/s, 27.5M Cache, Turbo, HT (125W) DDR4-2933 or Higher

Chipset	Latest compatible chipset supporting above processor
Memory	should be configured with 192 (6X32GB) RDIMM, 2933MT/s, Dual Rank, server should have 24 DDR4 DIMM slots RDIMMS & LR DIMMS supporting speeds up to 2933MT/s or Higher
Memory Protection	Advanced ECC with multi-bit error protection
Hard Drives	2 x 2TB 7.2K RPM NLSAS 12Gbps 512n 2.5in Hot-plug Hard Drive ,BOSS controller card + with 2 M.2 Sticks 240G (RAID 1), Blade
Connectivity	2 * Dual Port 10/25GbE Mezzanine Card
Remote management port	In addition to the above dedicated Remote Management should be done/ All the blades in the chassis should be remotely managed through Chassis
Bus Slots	Minimum of 3 PCI expansions/Mezzanine expansions.
OS	Red Hat Enterprise Linux 8.0 Factory Install, x64,Requires Subscription Selection
	Red Hat Enterprise Linux, 1-2SKT, Physical Node, 5YR Premium Subscription, with up to 1 Virtual Guest
OS Support	Microsoft Windows Server 2016 Std. Edition, Windows Server Hyper-V, Redhat Enterprise Linux, SuSE Linux Enterprise Server
Virtualization Support	VMWARE ESX/ESXi, Microsoft Hyper-V, Citrix
Alerts	Pre Failure alerts for all active and important components and automatic calls logging.
Systems Management	Smart Embedded Systems Management should be able to automate task like discovery deploy monitor and update.
	Should not be dependent on agents to for life cycle management.
	Should be able to provide Single console to manage Servers.
	Power management tool – Single interface to optimize and control every usage
	Should be able to integrate to 3rd party management tools.
Remote Management	Vendor should provide embedded features that helps to manage Servers in physical, local and remote environments, operating in-band or out-of-band, with or without a systems management software agent.
	Should include Power Management, necessary licenses should be included.
	Should support remote scripted reconfiguration tools
	Should be able to monitor all systems components (BIOS, HBA's, NICs)
Security	Power-on password, administrator password.
	The server should have Hardware root of trust
Systems Management Software	The server should come with systems management software to provide update management, configuration management, patch management and virtualization management.
Benchmarks	Server family should have published benchmark (Spec_int _rate2006)
Accessories	All the necessary tools & tackles licenses, cables/ connectors for Ethernet/ Fibre/ USB/ Power etc. required for making the system operational shall be provided by the bidder.
Industrial Standard Compliance	ACPI 2.0 Compliant, PCI 2.0 or higher Compliant, WOL Support, MS Logo Certification, USB 2.0 Support.
	Warranty 5 Years Onsite

Category	Specification of Chassis /Enclosure : Qty 1
Form Factor	Rack Mount 7U or higher
Bays	Chassis to accommodate Support for minimum 8 blade servers
Power supplies	The enclosure should be populated fully with power supplies of the highest capacity available with the vendor. Power supplies should support N+N as well as N+1 redundancy configuration, where N is greater than 1
	Power Management Features like
	i. To cap the power of individual server or a group.
	ii. Intelligently assign power to the appropriate server in the pool based on policy settings.
	iii. To show the actual power usage and thermal measurements data of servers
IO Modules	The Chassis should have redundant IO modules
Management	The chassis should have a touch scree LCD display
	Should support combination housing of Ethernet, FC, iSCSI, FCOE,IB interconnect fabrics offering Hot Pluggable & Redundancy as a feature.
	System Management and deployment tools to aid configuring the Blade Servers and OS Deployment should be provided.
	Chassis / Blade Architecture has redundant Management Module to provide single point of control for intelligent management of the entire console Access for all the Server Blades from the Management Module
	System remote management should support browser based graphical remote console along with Virtual Power button, remote boot using USB/CD/DVD Drive It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder; It should have support for multifactor authentication
	Server should support agentless management using remote management port
	The chassis should be equipped for providing MAC & WWN address across the slots or chassis instead of individual Host Bus Adapter/NIC of the Blade. The solution provided must not have any single point of failure and must be configured in failover

Cooling Fans & I/O Connections	Chassis is fully populated with hot swappable fans for cooling with adequate redundancy built in for the entire enclosure & its components
	Dual end-to-end redundant Network connectivity for each blade
	The blade chassis should have at least 6 I/O Modules/ switch bays
Connectivity	Min 160 Gbps of aggregated LAN Bandwidth
	Chassis has required number of redundant Ethernet Switches/Modules to provide at least two numbers of ports of 10 Gb/s connectivity, Server to Server communication should be in 1:1 non blocking
	In case the external / Internal switches/modules are offered to provide connectivity to SAN & LAN, the intermediate interconect modules should provide 1:1 non blocking architecture for server to server communication
Other Miscellaneous Requirements	Report Thermal & Power Information on per Server & per Enclosure basis
	The server should support monitoring and recording changes in the server hardware and system configuration
	Should provide remote firmware update functionality Should provide support for Java free graphical remote console
	Group Power Control Group Power Capping
	System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support
	Software should support dashboard view to quickly scan the managed resources to assess the overall health of the data center It should provide an at-a-glance visual health summary of the resources user is authorized to view
	The Systems Management software should provide Role-based security
	Management software should support integration with popular virtualization platform management software like vCenter, SCVMM and RedHat RHEV
	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the remote update of system software/firmware components
	The Server Management Software should be of the same brand as of the server supplier
On-Site OEM Warranty	5 years On-site comprehensive warranty with 24x7x365 remote hardware support.
Rack	Rack 42U (800 x 1000mm) with Fans , Cable Managers, 2x 10 Socket 5/15 Amp PDU, Mounting Hardware,
	Rack Mounted 16 Port KVM Switch with 17" LED Monitor
General Requirements:	
All Components with 5 years Onsite NBD Warranty	
All Servers and Switches should be from same OEM	
Prices Should be Valid for 90 Days	
Engineer Must Visit Once in a months for routine checkup of servers	
All the necessary tools & tackles licenses, cables/ connectors for Ethernet/ Fibre/ USB/ Power etc. required for making the system operational shall be provided by the bidder	
Bid splitting not applied	
Timely Servicing / rectification of defects during warranty period: After having been notified of the defects / service requirement during warranty period, Seller has to complete the required Service / Rectification within 7 days time limit. If the Seller fails to complete service / rectification with defined time limit, a penalty of 0.5% of Unit Price of the product shall be charged as penalty for each week of delay from the seller. Seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the Performance Security (PBG).Cumulative Penalty cannot exceed more than 10% of the total contract value after which the Buyer shall have the right to get the service / rectification done from alternate sources at the risk and cost of the Seller besides forfeiture of PBG. Seller shall be liable to re-imberse the cost of such service / rectification to the Buyer	
Concessional rate of GST : 5%	
In case of imported products, OEM or Authorized Seller of OEM should have a registered office in India to provide after sales service support in India. The certificate to this effect should be submitted	
The bidder must have ISO 9001 certification and enviormnet clearnce certificate	

Annexure : B

Technical Compliance Sheet

Specifications	**Compliance of quoted model**	**Compliance of alternate model**	**Remarks (Deviations)**

Annexure: C

FORMAT FOR MANUFACTURER'S AUTHORISATION CERTIFICATE

To,
The Registrar
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140001

Sub. : Tender for "_____".

Dear Sir,

We,_____, who are established and reputed manufacturers of _____, having factory/office at_____, hereby authorize M/s _____ [name & address of agents/distributors] to bid, negotiate and conclude the order with you for the above goods manufactured by us.

We shall remain responsible for the tender/Agreement negotiated by M/s _____, jointly and severely. No company or firm or individual other than M/s _____ are authorized to bid, negotiate and conclude the order in regard to this business against this specific tender as for all business in the entire territory of India.

An agency commission of ____% included in the FOB price is payable to M/s _____. We hereby extend our full guarantee and warranty as per the terms and conditions of tender for the goods offered for supply against this invitation for bid by the above supplier.

1. _____

2. _____

*specify in detail manufacturer's responsibilities+the services to be rendered by M/s_____ are as under:

i) _____

ii) _____

[Specify the services to be rendered by the agent/distributor] In case duties of the agent/distributor are changed or agent/ distributor is changed it shall be obligatory on us to automatically transfer all the duties and obligations to the new Indian Agent failing which we will ipso-facto become liable for all acts of commission or omission on the part of new Indian Agent/ distributor.

Yours faithfully,

[Name & Signature]
For and on behalf of M/s. _____ [Name of manufacturer]

Note: This letter of authorization should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

Annexure: D

FORMAT FOR NON BLACKLISTING OF SUPPLIER

I/ We _____Manufacturer/partner/Authorized Distributor/Agent (strike out which is not applicable) of (Supplier) _____ do hereby declare and solemnly affirm that the individual/firm/company is not black-listed by the Union/State Government/Autonomous body.

Deponent

Address _____

I/ We hereby solemnly declare and affirm that the above declaration is true and correct to the best of my knowledge and belief. No part of it is false and nothing has been concealed.

Deponent

Dated: _____

(Note: To be furnished on non-judicial stamp paper duly attested by the Oath Commissioner.)

Annexure: E

FORMAT FOR THE SUBMISSION OF RATES – PRICE BID

(To be submitted on the letterhead of the company/firm)

Name of the Computer Server _____

Name of the Manufacturer _____

Make of the Computer Server _____

Model Number _____

County of Origin _____

Sl. No.	Particulars	Rate/Unit
1	Cost of the Computer Server with 5 years comprehensive warranty (FOB value including Indian Agency Commission)	
2	Air freight, Insurance charges etc. (In case of import item)	
3	Total CIF value up to New Delhi Airport (In case of import item)/ Total FOR IIT Ropar value (In case of indigenous item)	
4	Percentage of Indian Agency Commission (IAC) payable to the Indian Agent, if any (In case of import item).	
5	FOR charges in Rupees including clearance, loading & unloading, transportation and insurance from New Delhi Airport to IIT Ropar (In case of import item)	
6	Packing dimension of the Computer Server	
7	Gross weight of the Computer Server after packing	

This is certified that the rates quoted above are not more than the rates charged from any other Institute/ Department/Organization.

Note:
1. Taxes and other levies, if any are to be clearly specified in the bid.

Annexure: F

PROFORMA FOR USER/CLIENT LIST

Sl. No.	Name & full address of purchaser	Purchase Order No. & Date	No. of Units (Qty)	Model No. with Date of Installation	Contact person with cell, phone and e-mail id

Annexure: G

CERTIFICATE OF WARRANTY

i). I/We certify that the warranty shall be for a period of 5 years comprehensive onsite warranty starting from the date of satisfactory installation, commissioning and handing over of the Computer Server and of the works conducted therewith covered under the supply order in working order. During the warranty period, I/we shall provide free "after sale service" and the replacement of any part(s) of the Computer Server or rectification of defects of work of the Computer Server will be free of cost. The replacement of the parts shall be arranged by us, at our own cost and responsibility. We undertake that the above warranty shall begin only from the date of satisfactory and faultless functioning of the Computer Server for 60 days at IIT Ropar premises. The benefit of change in dates of the warranty period shall be in the interest of the use/your organization.

ii). During the warranty period, we shall provide at least 3 preventive maintenance visits.

iii). Uptime Guarantee: During the warranty period, we will be responsible to maintain the Computer Server in good working conditions for a period 345 days (i.e. 95% uptime) in a block of 365 days.

a). All complaints will be attended by us within 2 weeks of receipt of the complaint in our office.

b). In case there is delay of more than 2 weeks in attending to a complaint from our side then you can count the number of days in excess of the permissible response time in the downtime. The above said response time of 2 weeks for attending to a complaint by us will not be counted in the downtime.

c). Penalty: We shall pay a penalty equivalent to 0.1 % of the FOB value of the Computer Server for every week or part thereof delay in rectifying the defect.

Note: The right to accept the reason (s) for delay and consider reduction or waive off the penalty for the same shall be at the sole discretion of Director, IIT Ropar

iv. We certify that the Computer Server being/quoted is the latest model and that spares for the Computer Server will be available for a period of at least 10 years and we also guarantee that we will keep the organization informed of any update of the Computer Server over a period of 10 years.

v. We guarantee that in case we fail to carry out the maintenance within the stipulated period, IIT Ropar reserves the right to get the maintenance work carried out at our risk, cost and responsibility after informing us. All the expenses including excess payment for repairs/maintenance shall be adjusted against the Performance Bank Guarantee. In case the expenses exceed the amount of Performance Bank Guarantee, the same shall be recoverable from us with/without interest in accordance with the circumstances.

vi. We shall try to repair the Computer Server at IIT Ropar premises itself. However, the Computer Server will be taken to our site on our own expenses in case it is not possible to repair the same at IIT Ropar. We shall take the entire responsibility for the safe custody and transportation of the Computer Server taken out for repairs till the Computer Server is rehabilitated to the IIT Ropar after repair Any loss of Computer Server or its accessories under its charge on account of theft, fire or any other reasons shall be at our sole risk and responsibility which will be compensated to IIT Ropar for such losses at the FOB/CIF value for the damaged/lost Computer Server/part, including accessories.

vii. We undertake to perform calibration after every major repair/breakdown/taking the Computer Server for repair out of IIT Ropar premises.

viii. In case of extended warrantee, we undertake to carry out annual calibration of the Computer Server.

ix. We guarantee that we will supply spare parts if and when required on agreed basis for an agreed price. The agreed basis could be an agreed discount on the published catalogue price.

x. We guarantee to the effect that before going out of production of spare parts, we will give adequate advance notice to you so that you may undertake to procure the balance of the life time requirements of spare parts.

xi. We guarantee the entire unit against defects of manufacture, workmanship and poor quality of components.

Annexure: H

TERMS AND CONDITIONS OF THE SERVICE CONTRACT

1. During the service contract period, the firm shall provide at least 3 preventive maintenance visits per year and attended to all emergent and break-down calls.
2. The service contract charges must be quoted separately for each year strictly as under and quoting of rates in ambiguous terms or in percentage terms etc. shall render the tender liable to rejection :
3. Rate for 1st year = _____ (Rupees in words).
   Rate for 2nd year = _____ (Rupees in words).
   Rate for 3rd year = _____ (Rupees in words).
4. The service contract charges should be quoted only for services and travel cost etc. and should not include the cost of any replacement parts/components which shall be arranged by the IIT ROPAR at its own cost.
5. In each block of 365 days during the entire service contract period the firm will be responsible to maintain the equipment in good working condition for a period 350 days (i.e 96% uptime). The time taken by the IIT ROPAR in providing to the firm the spare parts shall not count towards the down time. All the complaints will be attended by the firm within 2 working days of the dispatch of the complaint to their office. In case there is delay of more than 2 working days in attending to a complaint then the number of days in excess of the permissible response time shall be counted in the downtime. In case total downtime exceeds the permissible downtime a fine equivalent to double the service contract charges shall be recovered from the firm on per day basis.
6. The right to accept the reason(s) for delay and consider reduction or waive off the penalty for the same shall be at the sole discretion of Registrar, IIT Ropar.
7. We undertake to carry out annual calibration of the equipment.
8. We undertake to perform calibration after every major repair/breakdown/taking the equipment for repair out of IIT Ropar premises.
9. The replaced parts shall remain the property of the IIT Ropar.
10. The firm shall try to repair the equipment at IIT Ropar itself. However, the equipment may be taken to their site, on their own expenses if in case it is not possible to repair the same at IIT Ropar. The firm shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till this is handed over the purchaser after repair. Any loss of equipment or its accessories on account of theft, fire or any such reasons shall be the sole risk and responsibility of the firm who will compensate the IIT Ropar for such losses at FOB value of the damaged/lost equipment/part including accessories.
11. During the service contract period the parts/components that may be needing replacement shall made available by the IIT Ropar at their own expenses and all import formalities, payment of customs duty etc., shall be complied with/borne by the IIT Ropar.
12. All service contract charges will be invoiced twice in each year. The payment of the invoice will be made afterwards.
13. No price revisions will be accepted by the IIT Ropar during the entire tenure of the service contract agreement.
14. AMC contains both hardware and software troubleshooting.