



**THIRUVANANTHAPURAM REGIONAL CO-OPERATIVE MILK
PRODUCERS' UNION LTD. KSHEERA BHAVAN, PATTOM,
THIRUVANANTHAPURAM -695 004**

**Bid Ref. No. TRU/MIS/17/2025-26
Tender ID: 2025_KCMMF_795364_1**

TENDER FOR

**Supply, installation and commissioning of Database Server
with SAN storage and accessories**

2025-26

BID FORM

1. Registered Name of Bidder :

2. Address :

3.Contact details

i) Land phone :

ii) Mobile :

iii) E-mail :

iv) Fax :

THIRUVANANTHAPURAM REGIONAL CO.OPERATIVE MILKPRODUCERS' UNION LTD.
KSHEERA BHAVAN, PATTOM, THIRUVANANTHAPURAM –695 004
Phone Nos. 2558850, 2446845 Fax: 2449567,
E-mail ID – trcmpuplmg@gmail.com/trcmpumis@milma.com

NOTICE INVITING TENDER

The Managing Director, Thiruvananthapuram Regional Co-operative Milk Producers Union Ltd (TRCMPU Ltd) invites bids from reputed Manufacturers / Authorized dealers for the supply, installation and commissioning of Database Server with SAN storage and related accessories at TRCMPU Ltd, Head Office ,Ksheera Bhavan Pattom

1	Tender No. & Date	TRU:MIS:17:2025-26 dated 09-09-2025
2	Item of Supply	Database Server with SAN storage device and accessories
3	Specification	Attached
4	Quantity Required	1 No
5	Estimated Amount	49 Lakhs Approximate
6	Bid Submission Fee	Rs. 1000/-
7	Earnest Money Deposit	Rs.50000/-(Rupees Fifty Thousand Only)
6	Date of Publication of tender.	09.09.2025
7	Last Date of Submission of tender	19.09.2025 5.00 PM
8	Date and time of opening of tender	20.09.2025 11.00 AM
9	Place of Opening	TRCMPU Ltd., KsheeraBhavan, Pattom Thiruvananthapuram-695004.
10	Bid Validity	30 Days
11	Delivery time	Within 8 weeks from the date of issue of Purchase order.

MANAGING DIRECTOR

Terms & Conditions for e-Procurement

This tender is an e-Tender and is being published online for work / supplying of equipment as mentioned in the Invitation to bid. The tender is invited in two cover system from the registered and eligible manufacturers / suppliers through e-procurement portal of Government of Kerala (<http://www.etenders.kerala.gov.in>). Prospective bidders willing to participate in this tender shall necessarily register themselves with above mentioned e-procurement portal.

The tender timeline is available in the critical date section of this tender published in www.etenders.kerala.gov.in.

A. Online Bidders registration process:

Bidders should have a Class II or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on www.cca.gov.in. Once, the DSC is obtained, bidders have to register on www.etenders.kerala.gov.in website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost.

Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471-2577088/188/388 or 0484-2336006, 2332262 or 0497-2764788, 2764188 or 0483-273294 or through e-mail: etendershelp@kerala.gov.in or helptender@gmail.com for assistance in this regard.

B. Online Tender Process:

The tender process shall consist of the following stages:

- i) **Downloading of tender document:** Tender document will be available for free download on www.etenders.kerala.gov.in from the date & time of publication of e-tender, till the last date & time for online submission of e-tender. However, tender document fees shall be payable at the time of bid submission as stipulated in this tender document. Downloading of tender documents will not be possible after the date specified above.
- ii) **Pre-bid meeting:** Refer page 3 of the tender document
- iii) **Publishing of Corrigendum:** All corrigenda shall be published on www.etenders.kerala.gov.in and shall not be available elsewhere.
- iv) **Bid submission:** Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document to www.etenders.kerala.gov.in. No manual submission of bid is allowed and manual bids shall not be accepted under any circumstances.
- v) **Opening of Technical bid and bidder short-listing:** Technical bids will be opened, evaluated and shortlisted as per the eligibility and technical qualification. All documents in support of technical qualification shall be submitted online as well as offline within the due date and time. Failure to submit the documents will attract disqualification. Bids shortlisted by this process will be taken up for opening the financial bid.
- vi) **Opening of financial bids:** Bids of the qualified bidders shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in the critical date section

C. Documents comprising bid:

- i) **First Stage (Pre qualification or Technical cover based on 1 cover or 2 cover tender system):**
Pre-Qualification or Technical proposal shall contain the scanned copies of the following documents which every bidder has to upload.
 - A. Copies of original documents defining the constitution or legal status, place of registration and principal place of business of the company or firm or partnership or if a joint venture, of each party there to constituting the bidder.
 - B. Copies of GST registration certificate.
 - C. Details of experience and past performance of the bidder (or of each party to a joint venture) on works of similar nature, and details of current work in hand and other contractual commitments shall be submitted. Customer's full address, contact persons, contact telephone number and e-mail ID are to be furnished.
 - D. The bidder should be in same business as Supplier / manufacturer for which the bid is invited for a minimum period of twenty years at the time of bid opening. If an authorized dealer participates in the bid they should

produce documentary evidence for establishing that their principal supplier should be in the same business for a minimum period of 5 years. Copy of authorized dealership certificate issued by the principal supplier or manufacturer should also be uploaded along with bid document.

- E. The bidder's annual financial turnover during any one of the last two years shall not be less than twice the estimated cost as specified in the Invitation to Bid.
- F. The bidder shall have completed at least 4 number of similar installations for which this invitation to bid is issued during the last twenty years.
- G. The bidder shall furnish a copy of the Income tax Returns for the previous year in original or certified true copies.
The department doesn't take any responsibility for any technical snag or failure that has taken place during document upload.

ii) **The Second Stage (Financial Cover or as per tender cover system):**

The Bidder shall complete the Price bid as per format given for download along with this tender.

Note: - The blank price bid should be downloaded and saved on bidder's computer without changing file-name otherwise price bid will not get uploaded. The bidder should fill in the details in the same file and upload the same back to the website.

Fixed price: Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable/variable price quotation will be treated as non-responsive and rejected.

D. Tender Document Fees and Earnest Money Deposit (EMD)

The Bidder shall pay a tender document fee and Earnest Money Deposit or Bid Security as given in the Tender Inviting Notice. The Bid security is required to protect the purchaser against risk of Bidder's conduct, which would warrant the forfeiture of security.

Online Payment modes: The tender document fees and EMD can be paid in the following manner through e-Payment facility provided by the e-Procurement system:

State Bank of India Multi Option Payment System (SBI MOPS Gateway): Bidder are required to avail Internet banking facility in any of the below banks for making tender remittances in e-Procurement system.

A) Internet Banking Options (Retail)			
1	Allahabad Bank	29	Janata Sahakari Bank
2	Axis Bank	30	Karnataka Bank
3	Andhra Bank	31	Karur Vysya Bank
4	Bandan Bank	32	Kodak Mahindra Bank
5	Bank of Bahrain and Kuwait	33	Lakshmi Vilas Bank
6	Bank of Baroda	34	Mehasana urban Co-op Bank
7	Bank of India	35	NKGSB Co-operative Bank
8	Bank of Maharashtra	36	Oriental Bank of Commerce
9	Bassein Catholic Co-operative Bank	37	Punjab and Maharastra Co-operative Bank
10	BNP Paribas	38	Punjab National Bank
11	Canara Bank	39	Punjab and Sind Bank
12	Catholic Syrian Bank	40	RBL Bank
13	Central Bank of India	41	Saraswat Cooperative Bank
14	City Union Bank	42	Shamrao Vithal Cooperative Bank
15	Corporation Bank	43	South Indian Bank
16	Cosmos Bank	44	Standard Chartered Bank
17	DCB Bank	45	State Bank of India
18	Dena Bank	46	Syndicate Bank
19	Deutsche Bank	47	Tamilnadu Mercantile Bank
20	Dhanalaxmi Bank	48	Tamilnadu Cooperative Bank
21	Federal Bank	49	The Kalyan Janatha Sahakari Bank
22	HDFC Bank	50	TJSB Bank(Erstwhile Thane Janata Sahakari

			Bank)
23	ICICI Bank	51	UCO Bank
24	IDBI Bank	52	Union Bank of India
25	Indian Bank	53	Vijaya Bank
26	Indian Overseas Bank	54	YES Bank
27	Indus Ind Bank	55	United Bank of India
28	Jammu & Kashmir Bank		
B) Internet Banking Options (Corporate)			
1	Bank of Baroda	19	Karur Vysya Bank
2	Bank of India	20	Kodak Bank
3	Bank of Maharashtra	21	Lakshmi Vilas Bank
4	BNP Paribas	22	Oriental Bank of Commerce
5	Canara Bank	23	Punjab and Maharastra Coop Bank
6	Catholic Syrian Bank	24	Punjab and Sind Bank
7	City Union Bank	25	Punjab National Bank
8	Corporation Bank	26	RBL Bank
9	Cosmos Bank	27	Shamrao Vithal Cooperative Bank
10	Deutsche Bank	28	South Indian Bank
11	Development Credit Bank	29	State Bank of India
12	Dhanalaxmi Bank	30	Syndicate Bank
13	Federal Bank	31	UCO Bank
14	HDFC Bank	32	Union Bank of India
15	ICICI Bank	33	UPPCL
16	Indian Overseas Bank	34	Vijaya Bank
17	Janata Sahakari Bank	35	Axis Bank
18	Jammu & Kashmir Bank		

During the online bid submission process, bidder shall select SBI MOPS option and submit the page, to view the **terms and condition** page. On furtherer submitting the same, the e-Procurement system will redirect the bidder to MOPS Gateway, where two options, mainly **SBI and other banks*** will be shown. Here, bidder may proceed as per below.

(a). SBI Account holders shall click **SBI** option to with its Net banking facility, where bidder can enter their internet banking credentials and transfer the tender fee and EMD amount.

(b). Other bank account holders may click **other banks** option t view the bank selection page. Here bidder can select from any of the 54 banks to proceed with its net banking facility, for remitting the tender payments.

*Transaction charges for other banks vide SBI Letter No. LHO/TVM/AC/2016-17/47- 1% of transaction value subject a minimum of Rs.50/- and maximum of Rs.150/-

Any transaction charges levied while using any of the above modes of online payment has to be borne by the bidder. The supplier/contractor's bid will be evaluated only if payment status against bidder is showing "Success" during bid opening.

E. SUBMISSION PROCESS:

For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and financial bid online on www.etenders.kerala.gov.in along with online payment of tender document fees and EMD. For page-by-page instructions on bid submission process, please visit www.etenders.kerala.gov.in and click "Bidders Manual Kit" link on the home page.

It is necessary to click on "Freeze bid" link/icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/opening during bid opening process.

SPECIAL TERMS & CONDITIONS

Thiruvananthapuram Regional Co-operative Milk Producers Union Ltd (TRCMPU Ltd) invites bids from reputed Manufacturers / Authorized dealers for the supply, installation and commissioning of Server Computer, SAN storage and related accessories at TRCMPU Ltd, Head Office as per the specification attached

1. Eligibility and qualification requirements:

- The bidder should be a manufacturer or authorized dealer/reseller of reputed brands of quoted items
- The bidder should provide Manufactures Authorisation Form (MAF) from the OEM for the BOQ items from 1 to 6 as attached in the table of Form VI
- The email address and phone number for verification of the MAF should be the representative of the OEM and should not be of any other distributor or dealer.
- The bidder must be in the business of items to be quoted for the last 20 years in Kerala.
- The Bidder needs to have GST registration in Kerala
- The bidder needs to have Sales and Service Office in Kerala.
- The bidder should quote for all items specified in the price bid, else bid will be treated as incomplete and will stand invalid.
- BOQ Line items from 1 to 3 are to be from the same OEM

2. Tender Fee & Earnest Money Deposit

- a) The Tender fee and EMD as given in the invitation to bid shall be accepted through online NEFT transaction through the site www.etenders.kerala.gov.in.
- b) The EMD of the successful bidder shall be released after the signing of the agreement and submission of performance security.
- c) EMD of the unsuccessful tenderer shall be released after the award of the contract and execution of agreement by the successful tenderer.
- d) No interest shall be paid for the EMD for the period for which it lies in deposit.

3. Delivery and Billing Address:

The Managing Director
MILMA TRCMPU LTD
Ksheera Bhavan,
Pattom, Thiruvananthapuram – 695004
GST: 32AAAAT9795J1ZX

4. Terms of payment: Payment shall be made from TRCMPU as follows

- 100% Payment shall be released by TRCMPU Ltd within 15 days after successful installation and commissioning of supplied machine.
- Performance Bank Guarantee for 2% of the bid value for a period of 3 years has been submitted.

5. **The Tender should be submitted as follows**

Online Cover I

1. Details of Tender fee and EMD details.
2. Documents to prove the qualifying criteria as mentioned in clause 1 above.
 - Scanned copy of Sales Tax & Service Tax registration certificates.
 - Scanned copy Income Tax returns filed for last two years.
 - Details of previous executed orders along with address of clients, contact person, contact no, e-mail ID etc.
 - Details of contracts on hand and other contractual commitments.
 - Filled copy of Compliance Statement

Online Cover – II

Price bid in the prescribed form available as BOQ in the website www.etenders.kerala.gov.in

B. Note to Bidders:

- i. Bidders are advised to note the Tender Id and Tender No. & Date for reference.
- ii. All uploaded documents should contain the signature and the office seal of the bidder/authorized persons.
- iii. The Managing Director, TRCMPU Ltd., is empowered to reject any or all the bids without assigning any reason.
- iv. The price should remain same during the contract period.
- v. Verification of tax is applicable during the contract period.
- vi. TRCMPU Ltd does not bind itself to accept the lowest offer and reserve the right to accept any offer without assigning any reason. The bidders shall not have any claim in this regard.
- vii. Hard copies of the documents mentioned under cover 1 and copy of this tender document duly signed on all pages to be submitted within two days from the date of tender opening. Non submission of hard copies in time by the bidder shall lead to rejection of their offer.

Managing Director

SPECIFICATION FOR DATABASE SERVER

	1-DATABASE SERVER – 1 No.
	BRAND PREFERRED: DELL / LENOVO / FUJITSU
Feature	Description
Chassis	2U Rack Mountable
CPU	Populated with 2 x Intel Xeon Silver 4514Y 16C 150W 2.0GHz Processor or better
Memory	Supports up to 32x DDR5 RDIMMs Populated with 8 x 32GB DDR5 5600MHz (2Rx8) RDIMM
Bus Slots	Server should support up to 12x PCIe 4.0/5.0 slots, 1x cabled internal HBA/RAID adapter that doesn't occupy a standard PCIe slot
GPU	Up to 8x single-width GPUs or 3x double-width GPUs
Hard disk drive	Server should support up to 20x 3.5" or 40x 2.5" drives Up to 36x NVMe drives supported with PCIe retimer adapters Rear: 2x 2.5"; 7mm SATA/NVMe hot-swap boot drives, support RAID Internal 2x M.2 SATA/NVMe boot drives, support RAID Direct NVMe, VROC/VMD, and onboard SATA with SW RAID (0,1,5,10). Populated with 2 x 2.5" 960GB Read Intensive SATA 6Gb HS SSD
Raid Controller	RAID with 4GB Flash PCIe 12Gb Adapter
Storage Controller	32Gb Dual Port Fibre Channel Host Bus Adapter
Networking Interface	10/25GbE SFP28 2-Port Ethernet Adapter with 2 x Dual Rate 10G/25G SR SFP28 Transceiver
Ports	Front: 1x USB 3.1 G1, 1x USB 2.0, 1x VGA (optional) Rear: 3x USB 3.1 G1, 1x VGA, 1x 1GbE RJ-45 (management), 2nd 1GbE management port (optional in OCP slot location), 1x Serial port (optional)
Power Supply	Dual 1100W 230V/115V Hot-Swap Power Supply or better
Fans	6 x Standard Fan Module
Operating Systems and Virtualization Software Support	Windows Server Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) VMware ESXi Alma Linux Citrix Oracle Linux Ubuntu Server Rocky Linux
Server Management	Server Remote Management Controller with 3 years subscription
Warranty	Three Years onsite OEM Warranty

2 - SAN STORAGE – 1 No	
BRAND PREFERRED: BRAND PREFERRED: DELL / LENOVO / FUJITSU (Same as the OEM of item 1)	
Feature	Description
Form Factor	2U24 SFF
Snap Shots	128 Standard, 512 (optional)
Operating System	The storage array should support industry-leading Operating System platforms including: Windows 2016 / 2019 / 2022, VMware and Linux.
Capacity & Scalability	1. The Storage Array shall be offered with 8 Nos. of 960GB 2.5" 12 Gbps SAS hot-Swap SSD 2. Storage shall be scalable to maximum of 96 number of SAS SFF drives.
Front-end Ports & Back-end Ports	Offered Storage system shall be supplied with 4 * 32 Gbps, 4 ports per controller
Architecture	The storage array should support dual active-active array controllers for high performance and reliability
Cache	64 GB per system (32 GB per controller). Cache mirroring between the controllers. Flash-backed cache protection (includes battery for destaging to flash).
Raid	Should support RAID levels 0, 1, 3, 5, 6, and 10
Features	Dynamic Disk Pools (DDP) technology: Helps improve performance and availability with significantly faster rebuild time and reduced exposure to multiple drive failures by allowing data and built-in spare capacity to be distributed across all physical drives in the storage pool
	All Flash Array (AFA) capability: Meets the demand for higher speed storage and provide higher IOPS and bandwidth with lower power usage and total cost of ownership than hybrid or HDD-based solutions
	Thin provisioning: Optimizes efficiency of Dynamic Disk Pools by allocating storage space based on the minimum space required by each application at any given time, so that applications consume only the space they are actually using, not the total space that has been allocated to them, which allows customers to purchase storage they need today and add more as application requirements grow
	Snapshots: Enables creation of copies of data for backup, parallel processing, testing, and development, and have the copies available almost immediately (up to 512 snapshot targets per system)
	Encryption: Provides encryption for data at rest for enhanced data security with the optional FIPS 140-2 Level 2 drives and embedded key management (AES-256) or an external key management server
	Automatic load balancing: Provides automated I/O workload balancing of I/O traffic from the hosts across both controllers
	Dynamic volume and capacity expansion: Allows the capacity of a volume to be expanded by adding new physical drives or making use of unused space on existing drives
	Asynchronous mirroring: Provides storage system-based data replication between the storage systems containing primary (local) and secondary (remote) volumes by using asynchronous data transfers over iSCSI or Fibre Channel communication links at set intervals (both storage systems must have licenses for asynchronous mirroring).
Warranty	Three Years onsite OEM Warranty 3-year Mission Critical / 6 Hour CTR

3 - OFC Patch Cord LC-LC Multimode OM4 (5m) - 4 Nos. BRAND PREFERRED: Same as the OEM of Items 1&2	
Minimum Specification	
OFC Patch Cord LC-LC Multimode OM4	
Cable length: 5m (16.4 ft)	
One Year Warranty	

4 - OFC Patch Cord LC-LC Multimode OM4 (3m) - 4 No.	
Brand Preferred: Panduit / Siemon / R&M	
Item	Description
Standardisation	Multimode as per standard ITU-T G.651, Optical properties as per IEC 61753-1
Cable class	Patch Cord
Connector class	Connector
Connector type	LC Duplex
Protection class (IP) connector	20
Polishing connector	PC
Attenuation grade IL - connector	C
Return loss grade RL - connector	2
Number of connectors	2
Patch Cord type	Duplex
Fiber class	MM OM4
Cable jacket material	LSZH
Cable jacket characteristics	Flame-retardant
Cable overall diameter	2.0 (± 0.1) mm
Fiber / conductor diameter	50/125µm
Fiber type	Multimode (MM)
Length (meter)	3 m
Warranty	One Year

5 - Patch Cord Cat.6, U/UTP, 4P, LSZH - 5 Mtrs - 8 Nos.	
Brand Preferred: Panduit / Siemon / R&M	
Item	Description
Standardisation	Compliant with Cat. 6 Class E (250 MHz) requirements: ISO/IEC 11801 ed.2.2
	Compliant with Cat. 6 component standard IEC 60603-7-4 & 60603-7-5
	Compatible to the standard IEC 60512-99-001/002
	Should support PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PPoE (IEEE 802.3bt)
Plug Housing	UL 94-V0 polycarbonate
Shielding connector	Unshielded
Connector type	RJ45 connector compliant with Cat. 6 component standard. Strain-relief function in acc. with TIA TIA/EIA 568.2-D.

Connector Category	Cat. 6
Wire type	Stranded wire
Cable Jacket material	LSZH, Low-smoke in acc. with IEC 61034 and halogen-free in acc. with IEC 60754-1. RoHS 2 compliant.
Cable overall diameter	6 mm
Conductor diameter	AWG26/7
Outer Jacket	LSZH
Outer Jacket colour options	White, Grey, Blue, Yellow, Red, Green, Violet, Orange, Black
Cable length	5m
Warranty	One Year

6 - 42U SERVER RACK – 1 No.
BRAND PREFERRED: HPE / RITTAL / NETRACK
MINIMUM SPECIFICATION OF SERVER RACK
1. General Requirements:
1.1 Rack should be designed to provide Secure, Store, Streamline and Systemize IT Equipment's
1.2 Rack should have 100% assured compatibility with all equipment's conforming to DIN 41494 (General Industrial Standard for equipment's) or Equivalent EIA /ISO / EN Standard
1.3 The Rack should have 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offering greater mounting flexibility, with numbered U positions
1.4 The Rack should be 2115 mm in height, 600mm in width and 1200mm in depth
2. Physical Specifications
2.1 Rack should support static load of 750 kgs on Casters and 1250kgs on levellers.
2.2 Rack should have front perforated Convex door
2.3 Rack should have rear perforated dual door
2.4 Rack should have 2 side panels and grounding and bonding accessories pre-installed by the manufacturer.
3. Equipment Access & Installation
3.1 The Rack should have 42U usable Space
3.2 The Rack should have 4No's adjustable, 19" verticals with punched 10mm square hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, with numbered U positions
3.3 The OEM should include 20 No of Mounting hardware for equipment fixing.
3.4 The front and rear doors should be easily detachable.
3.5 The front and rear doors should open to allow easy access.
3.6 The doors of the rack should be reversible such that it can be mounted on either side.
3.7 The rack should have side panels which can be removed without using tools, using easy finger latches for fast access to cabling and equipment.
3.8 Side panels should flush with the frame so the overall width of the unit does not change with the side panels installed.
4. Material Requirements
4.1 All weight bearing components should be made from steel with a thickness not less than 1.6 mm, 19" equipment mounting angle should be 2.0MM and other parts not less than 1mm
4.2 All sheet metal parts should be Pre-Treated and powder coated meeting ASTM Standard
5. Grounding Requirements

5.1	All enclosure components i.e. frame and door should be bonded together and to rack ground point
5.2	OEM to provide rack ground point, Provision to further ground to Telecom Ground bus bar System
5.3	Grounding and bonding as per UL Standards
5.4	Manufacture should provide Horizontal OR vertical Ground bus bar for equipment Grounding as per Customer / Tender Requirement
6. Certifications, Environmental and Safety Requirements	
6.1	Racks should be manufactured by ISO9001:2008, ISO14001:2004 & OHSAS18001:2007 Certified company and should have proper EHS Policy.
6.2	Products must be UL Certified
6.3	Manufacturer must certify that the products are RoHS Compliance
6.4	Manufacturer must certify that the products are Comply DIN41494 and Equivalent EIA/ISO/EN /CEA Standard.
6.5	The rack should comply minimum of IP 20 rating for protection against touch, ingress of foreign bodies and ingress of water.
6.6	The enclosure should both protect the user from mechanical hazards and generally meet the requirements for a mechanical enclosure (stability, mechanical strength, aperture sizes, etc.) as defined in IEC 60950 Third Edition.
7. Ventilation and Thermal Management	
7.1	The unit should have ventilated front and rear doors to provide adequate airflow required by the major server and Network manufacturers.
7.2	Shall have 4 Numbers of Exhaust Fans 360CFM Module on the top
7.3	20 numbers of 19" 1U Tool less Blanking panels to be provided for the empty U spaces to avoid leakage of cold air
8. Cable Management	
8.1	The rack shall be provided with 1 number of horizontal cable managers with loops for routing the cables horizontally at front in a structured manner without any sagging of cable bunches.
8.2	2 numbers of Vertical cable managers shall be provided at the rear for routing of data and power cables vertically and avoiding the waterfall of cables
9. Accessories	
9.1	19" x 725mm Heavy Duty Shelf – 2 Nos
9.2	Rotary Keyboard Tray – 1 Number
10 PDU	
10.1	The rack should consist of 2 numbers of PDU and it consists of 12 numbers of Indian round pin/octagonal sockets with 32 Amp MCB and Indicator with 3mtr Cable.
11 Access control - Security:	
11.1	The rack shall be provided with swing handle lock with common key for both front and rear door.
12	All the components have to be from the same brand
13. Stabilization	
13.1	The manufacturer should have optional stabilizer plate kit, consisting of a plate, and mounting hardware that can be attached to the enclosure frame, and that can be bolted to the floor.
13.2	The unit should have four adjustable levelling feet to help provide a stable base in the event of an uneven floor surface and to prevent rolling.
14. Warranty and Support	
14.1	One Year

	7 - Core Switch – 1 No.
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	BRAND PREFERRED: Cisco/HPE Aruba/Brocade
Item	Minimum Specification
Make (Brand)	
Model	
Architecture	Shall be 19" Rack Mountable
	Shall support dual power supply
	The Switch should support 16 fixed Gigabit Ethernet ports
	The switch shall have 4 SFP+ ports in addition to the above ports
	The switch shall have one expansion slots to support up to eight 10GBASE-T ports
	1 RJ-45 serial console port
	1 RJ-45 out-of-band management port
	2 GB SDRAM; packet buffer size: 4 MB, 512 MB flash
	Shall have switching capacity of 288 Gbps Gbps
	Shall have throughput up to 180 Mpps
	The Switch should have modular operating system
Resiliency	Shall have the capability to extend the control plane across multiple active switches making it a virtual switching fabric, enabling interconnected switches to perform as single Layer-2 switch and Layer-3 router
	Shall support virtual switching fabric creation across nine switches using 10G Ethernet Links
	The modules/cables to create virtual switching fabric shall be provided
	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol
	IEEE 802.3ad Link Aggregation Control Protocol (LACP)
	Ring protocol support to provide sub-100 ms recovery for ring Ethernet-based topology
	Virtual Router Redundancy Protocol (VRRP) to allow a group of routers to dynamically back each other up to create highly available routed environments
	Graceful restart for OSPF, IS-IS and BGP protocols
Layer 2 Features	Bidirectional Forwarding Detection (BFD) for OSPF, IS-IS and BGP protocols
	Shall support up to 4,000 port or IEEE 802.1Q-based VLANs
	Shall support GARP VLAN Registration Protocol or equivalent feature to allow automatic learning and dynamic assignment of VLANs
	Shall have the capability to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops
	Shall support IEEE 802.1ad QinQ and Selective QinQ to increase the scalability of an Ethernet network by providing a hierarchical structure
	Shall support Jumbo frames on GbE and 10-GbE ports
	Internet Group Management Protocol (IGMP)
	Multicast Listener Discovery (MLD) snooping
	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	Multicast VLAN to allow multiple VLANs to receive the same IPv4 or IPv6 multicast traffic
	support IEEE 802.1ad QinQ and selective QinQ
Layer 3 Features (any additional licenses required shall be included)	Should support Multicast Source Discovery Protocol (MSDP)
	Static Routing for IPv4 and IPv6
	RIP for IPv4 (RIPv1/v2) and IPv6 (RIPng)
	OSPF for IPv4 (OSPFv2) and IPv6 (OSPFv3)
	IS-IS for IPv4 and IPv6 (IS-ISv6)
	Border Gateway Protocol 4 with support for IPv6 addressing

	Policy-based routing
	Unicast Reverse Path Forwarding (uRPF)
	IPv6 tunnelling to allow IPv6 packets to traverse IPv4-only networks by encapsulating the IPv6 packet into a standard IPv4 packet
	Dynamic Host Configuration Protocol (DHCP) client, Relay and server
	PIM Dense Mode (PIM-DM), Sparse Mode (PIM-SM), and Source-Specific Mode (PIM-SSM) for IPv4 and IPv6 multicast applications
	MPLS capability including MPLS VPNs and MPLS Traffic Engineering (MPLS TE)
	VPLS for data center to data center communication at Layer 2; provides support of hierarchical VPLS for scalability
	Shall provide support of VPLS for scalability
QoS and Security Features	Access Control Lists for both IPv4 and IPv6 for filtering traffic to prevent unauthorized users from accessing the network
	Port-based rate limiting and access control list (ACL) based rate limiting
	Congestion avoidance using Weighted Random Early Detection (WRED)
	Powerful QoS feature supporting strict priority (SP) queuing, weighted round robin (WRR), weighted fair queuing (WFQ), weighted deficit round robin (WDDR) and weighted random early discard (WRED)
	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
	Media access control (MAC) authentication to provide simple authentication based on a user's MAC address
	Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers
	Port security and port isolation
Management Features	Configuration through the CLI, console, Telnet, SSHv2 and Web browser management interfaces
	SNMPv1, v2, and v3 and Remote monitoring (RMON) support
	sFlow (RFC 3176) or equivalent for traffic analysis
	Management security through multiple privilege levels with password protection
	FTP, TFTP, and SFTP support
	Port mirroring to duplicate port traffic (ingress and egress) to a local or remote monitoring port. Shall support minimum four mirroring groups
	RADIUS/TACACS+ for switch security access administration
	Network Time Protocol (NTP) or equivalent support
Software Defined Networking (SDN) Capability	Shall have Ethernet OAM (IEEE 802.3ah) management capability
	OpenFlow protocol capability to enable software-defined networking
Environmental Features	Allows the separation of data (packet forwarding) and control (routing decision) paths, to be controlled by an external SDN Controller, utilizing OpenFlow protocol
	Shall provide support for RoHS and WEEE regulations
	Shall be capable of supporting both AC and DC Power inputs
	Operating temperature of 0°C to 45°C
Warranty	Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A; EN 55022 Class A
	Three Years Warranty shall be offered directly from the switch OEM.

	8 - 10G SFP+ LC SR MM Transceivers for Core Switch (For Item No:5) – 4 Nos.
	BRAND PREFERRED: As same as Item No.:5
Feature	Description
Make (Brand)	
Model	
Type	10G SFP+ LC SR MM transceiver to use in Core Switch.
Transceiver form factor	SFP+
Warranty	One Year

	9 - 10G SFP+ LC SR MM Transceivers for existing HPE 5130 Switch – 2 Nos.
	BRAND PREFERRED: HPE Aruba
Feature	Description
Make (Brand)	
Model	
Type	10G SFP+ LC SR MM transceiver to use in Existing HPE 5130 Switch.
Transceiver form factor	SFP+
Warranty	One Year

10 - Microsoft Windows Server 2025			
SL.NO	Description of Requirement	Qty	
10	Windows Server 2025 Standard - 2 Core License Pack (DG7GMGF0PWHC)	16	

11 – Virtualisation – 1 No.	
Details	
Domain Server needs to be installed and configured	
Server need to be virtualized by using Microsoft Hyper-V	
Supplied Storage Box need to be installed and configured based on customer's requirement.	
File Server need to be configured either on Basic OS or on virtualized VM.	
Oracle 10g Enterprise need to be installed and configured on Windows STD 2022. L1 bidder need to share End used details where Oracle 10g Enterprise is installed and running on Win 2022 STD.	
Additional VMs need to be installed and setup based on customer requirement during the time of initial installation/setup.	
Support: One year	

Managing Director

COMPLIANCE STATEMENT

Compliance Statement of Technical specification required for the Database Server. Technical compliance of every component should be marked and in case of any deviation, it shall be entered in the “Remarks” column. The bidder must furnish the make and model of the products quoted without fail.

(All the information asked for shall be given. No rows shall be left blank)

1-DATABASE SERVER – 1 No.			
BRAND PREFERRED: DELL / LENOVO / FUJITSU			
Feature	Description	Compliance Yes/No	Remarks
Make (Brand)			
Model			
Chassis	2U Rack Mountable		
CPU	Populated with 2 x Intel Xeon Silver 4514Y 16C 150W 2.0GHz Processor or better		
Memory	Supports up to 32x DDR5 RDIMMs Populated with 8 x 32GB DDR5 5600MHz (2Rx8) RDIMM		
Bus Slots	Server should support up to 12x PCIe 4.0/5.0 slots, 1x cabled internal HBA/RAID adapter that doesn't occupy a standard PCIe slot		
GPU	Up to 8x single-width GPUs or 3x double-width GPUs		
Hard disk drive	Server should support up to 20x 3.5" or 40x 2.5" drives Up to 36x NVMe drives supported with PCIe retimer adapters Rear: 2x 2.5"; 7mm SATA/NVMe hot-swap boot drives, support RAID Internal 2x M.2 SATA/NVMe boot drives, support RAID Direct NVMe, VROC/VMD, and onboard SATA with SW RAID (0,1,5,10). Populated with 2 x 2.5" 960GB Read Intensive SATA 6Gb HS SSD		
Raid Controller	RAID with 4GB Flash PCIe 12Gb Adapter		
Storage Controller	32Gb Dual Port Fibre Channel Host Bus Adapter		
Networking Interface	10/25GbE SFP28 2-Port Ethernet Adapter with 2 x Dual Rate 10G/25G SR SFP28 Transceiver		
Ports	Front: 1x USB 3.1 G1, 1x USB 2.0, 1x VGA (optional) Rear: 3x USB 3.1 G1, 1x VGA, 1x 1GbE RJ-45 (management), 2nd 1GbE management port (optional in OCP slot location), 1x Serial port (optional)		
Power Supply	Dual 1100W 230V/115V Hot-Swap Power Supply or better		
Fans	6 x Standard Fan Module		
Operating Systems and Virtualization Software Support	Windows Server Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) VMware ESXi Alma Linux Citrix Oracle Linux Ubuntu Server		

	Rocky Linux		
Server Management	Server Remote Management Controller with 3 years subscription		
Warranty	Three Years onsite OEM Warranty		

2 - SAN STORAGE – 1 No.			
BRAND PREFERRED: BRAND PREFERRED: DELL / LENOVO / FUJITSU (Same as the OEM of item 1)			
Feature	Description	Compliance Yes/No	Remarks
Make (Brand)			
Model			
Form Factor	2U24 SFF		
Snap Shots	128 Standard, 512 (optional)		
Operating System	The storage array should support industry-leading Operating System platforms including: Windows 2016 / 2019 / 2022, VMware and Linux.		
Capacity & Scalability	1. The Storage Array shall be offered with 8 Nos. of 960GB 2.5" 12 Gbps SAS hot-Swap SSD 2. Storage shall be scalable to maximum of 96 number of SAS SFF drives.		
Front-end Ports & Back-end Ports	Offered Storage system shall be supplied with 4 * 32 Gbps, 4 ports per controller		
Architecture	The storage array should support dual active-active array controllers for high performance and reliability		
Cache	64 GB per system (32 GB per controller). Cache mirroring between the controllers. Flash-backed cache protection (includes battery for destaging to flash).		
Raid	Should support RAID levels 0, 1, 3, 5, 6, and 10		
Features	Dynamic Disk Pools (DDP) technology: Helps improve performance and availability with significantly faster rebuild time and reduced exposure to multiple drive failures by allowing data and built-in spare capacity to be distributed across all physical drives in the storage pool		
	All Flash Array (AFA) capability: Meets the demand for higher speed storage and provide higher IOPS and bandwidth with lower power usage and total cost of ownership than hybrid or HDD-based solutions		
	Thin provisioning: Optimizes efficiency of Dynamic Disk Pools by allocating storage space based on the minimum space required by each application at any given time, so that applications consume only the space they are actually using, not the total space that has been allocated to them, which allows customers to purchase storage they need today and add more as application requirements grow		
	Snapshots: Enables creation of copies of data for backup, parallel processing, testing, and development, and have the copies available almost immediately (up to 512 snapshot targets per system)		
	Encryption: Provides encryption for data at rest for enhanced data security with the optional FIPS 140-2 Level 2 drives and embedded key management (AES-256) or an external key management server		
	Automatic load balancing: Provides automated I/O workload balancing of I/O traffic from the hosts across both controllers		
	Dynamic volume and capacity expansion: Allows the capacity of a volume to be expanded by adding new physical drives or making use of unused space on existing drives		

	Asynchronous mirroring: Provides storage system-based data replication between the storage systems containing primary (local) and secondary (remote) volumes by using asynchronous data transfers over iSCSI or Fibre Channel communication links at set intervals (both storage systems must have licenses for asynchronous mirroring).		
Warranty	Three Years onsite OEM Warranty 3-year Mission Critical / 6 Hour CTR		

3 - OFC Patch Cord LC-LC Multimode OM4 (5m) - 4 Nos.			
BRAND PREFERRED: Same as the OEM of Items 1&2			
Minimum Specification	Compliance Yes / No	Remarks	
Make (Brand) :			
Model :			
OFC Patch Cord LC-LC Multimode OM4			
Cable length: 5m (16.4 ft)			
One Year Warranty			

4 - OFC Patch Cord LC-LC Multimode OM4 (3m) - 4 No.			
Brand Preferred: Panduit / Siemon / R&M			
Item	Description	Compliance Yes / No	Remarks
Make (Brand)			
Model			
Standardisation	Multimode as per standard ITU-T G.651, Optical properties as per IEC 61753-1		
Cable class	Patch Cord		
Connector class	Connector		
Connector type	LC Duplex		
Protection class (IP) connector	20		
Polishing connector	PC		
Attenuation grade IL - connector	C		
Return loss grade RL - connector	2		
Number of connectors	2		
Patch Cord type	Duplex		
Fiber class	MM OM4		
Cable jacket material	LSZH		
Cable jacket characteristics	Flame-retardant		
Cable overall diameter	2.0 (± 0.1) mm		
Fiber / conductor diameter	50/125µm		
Fiber type	Multimode (MM)		
Length (meter)	3 m		
Warranty	One Year		

5 - Patch Cord Cat.6, U/UTP, 4P, LSZH – 5 Mtrs – 8 Nos.				
Brand Preferred: Panduit / Siemon / R&M				
Make :		Model :	Compliance Yes/No	Remarks
Item	Description			
Standardisation	Compliant with Cat. 6 Class E (250 MHz) requirements: ISO/IEC 11801 ed.2.2			
	Compliant with Cat. 6 component standard IEC 60603-7-4 & 60603-7-5			
	Compatible to the standard IEC 60512-99-001/002			
	Should support PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PPoE (IEEE 802.3bt)			
Plug Housing	UL 94-V0 polycarbonate			
Shielding connector	Unshielded			
Connector type	RJ45 connector compliant with Cat. 6 component standard. Strain-relief function in acc. with TIA TIA/EIA 568.2-D.			
Connector Category	Cat. 6			
Wire type	Stranded wire			
Cable Jacket material	LSZH, Low-smoke in acc. with IEC 61034 and halogen-free in acc. with IEC 60754-1. RoHS 2 compliant.			
Cable overall diameter	6 mm			
Conductor diameter	AWG26/7			
Outer Jacket	LSZH			
Outer Jacket colour options	White, Grey, Blue, Yellow, Red, Green, Violet, Orange, Black			
Cable length	5m			
Warranty	One Year			

6 - 42U SERVER RACK – 1 No.		
BRAND PREFERRED: HPE / RITTAL / NETRACK		
MINIMUM SPECIFICATION OF SERVER RACK	Compliance Yes/No	Remarks
Make (Brand) :		
Model :		
1. General Requirements:		
1.1 Rack should be designed to provide Secure, Store, Streamline and Systemize IT Equipment's		
1.2 Rack should have 100% assured compatibility with all equipment's conforming to DIN 41494 (General Industrial Standard for equipment's) or Equivalent EIA /ISO / EN Standard		
1.3 The Rack should have 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offering greater mounting flexibility, with numbered U positions		
1.4 The Rack should be 2115 mm in height, 600mm in width and 1200mm in depth		
2. Physical Specifications		
2.1 Rack should support static load of 750 kgs on Casters and 1250kgs on levellers.		
2.2 Rack should have front perforated Convex door		
2.3 Rack should have rear perforated dual door		
2.4 Rack should have 2 side panels and grounding and bonding accessories pre-installed by the manufacturer.		
3. Equipment Access & Installation		
3.1 The Rack should have 42U usable Space		
3.2 The Rack should have 4No's adjustable, 19" verticals with punched 10mm square hole		

and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, with numbered U positions		
3.3 The OEM should include 20 No of Mounting hardware for equipment fixing.		
3.4 The front and rear doors should be easily detachable.		
3.5 The front and rear doors should open to allow easy access.		
3.6 The doors of the rack should be reversible such that it can be mounted on either side.		
3.7 The rack should have side panels which can be removed without using tools, using easy finger latches for fast access to cabling and equipment.		
3.8 Side panels should flush with the frame so the overall width of the unit does not change with the side panels installed.		
4. Material Requirements		
4.1 All weight bearing components should be made from steel with a thickness not less than 1.6 mm, 19" equipment mounting angle should be 2.0MM and other parts not less than 1mm		
4.2 All sheet metal parts should be Pre-Treated and powder coated meeting ASTM Standard		
5. Grounding Requirements		
5.1 All enclosure components i.e. frame and door should be bonded together and to rack ground point		
5.2 OEM to provide rack ground point, Provision to further ground to Telecom Ground bus bar System		
5.3 Grounding and bonding as per UL Standards		
5.4 Manufacture should provide Horizontal OR vertical Ground bus bar for equipment Grounding as per Customer / Tender Requirement		
6. Certifications, Environmental and Safety Requirements		
6.1 Racks should be manufactured by ISO9001:2008, ISO14001:2004 & OHSAS18001:2007 Certified company and should have proper EHS Policy.		
6.2 Products must be UL Certified		
6.3 Manufacturer must certify that the products are RoHS Compliance		
6.4 Manufacturer must certify that the products are Comply DIN41494 and Equivalent EIA/ISO/EN /CEA Standard.		
6.5 The rack should comply minimum of IP 20 rating for protection against touch, ingress of foreign bodies and ingress of water.		
6.6 The enclosure should both protect the user from mechanical hazards and generally meet the requirements for a mechanical enclosure (stability, mechanical strength, aperture sizes, etc.) as defined in IEC 60950 Third Edition.		
7. Ventilation and Thermal Management		
7.1 The unit should have ventilated front and rear doors to provide adequate airflow required by the major server and Network manufacturers.		
7.2 Shall have 4 Numbers of Exhaust Fans 360CFM Module on the top		
7.3 20 numbers of 19" 1U Tool less Blanking panels to be provided for the empty U spaces to avoid leakage of cold air		
8. Cable Management		
8.1 The rack shall be provided with 1 number of horizontal cable managers with loops for routing the cables horizontally at front in a structured manner without any sagging of cable bunches.		
8.2 2 numbers of Vertical cable managers shall be provided at the rear for routing of data and power cables vertically and avoiding the waterfall of cables		
9. Accessories		
9.1 19" x 725mm Heavy Duty Shelf – 2 Nos		
9.2 Rotary Keyboard Tray – 1 Number		
10 PDU		
10.1 The rack should consist of 2 numbers of PDU and it consists of 12 numbers of Indian round pin/octagonal sockets with 32 Amp MCB and Indicator with 3mtr Cable.		
11 Access control - Security:		
11.1 The rack shall be provided with swing handle lock with common key for both front and rear door.		
12 All the components have to be from the same brand		

13. Stabilization		
13.1 The manufacturer should have optional stabilizer plate kit, consisting of a plate, and mounting hardware that can be attached to the enclosure frame, and that can be bolted to the floor.		
13.2 The unit should have four adjustable levelling feet to help provide a stable base in the event of an uneven floor surface and to prevent rolling.		
14. Warranty and Support		
14.1 One Year		

7 - Core Switch – 1 No.			
BRAND PREFERRED: Cisco/HPE Aruba/Brocade			
Item	Minimum Specification	Compliance Yes/ No	Remarks
Make (Brand)			
Model			
Architecture	Shall be 19" Rack Mountable		
	Shall support dual power supply		
	The Switch should support 16 fixed Gigabit Ethernet ports		
	The switch shall have 4 SFP+ ports in addition to the above ports		
	The switch shall have one expansion slots to support up to eight 10GBASE-T ports		
	1 RJ-45 serial console port		
	1 RJ-45 out-of-band management port		
	2 GB SDRAM; packet buffer size: 4 MB, 512 MB flash		
	Shall have switching capacity of 288 Gbps Gbps		
	Shall have throughput up to 180 Mpps		
	The Switch should have modular operating system		
Resiliency	Shall have the capability to extend the control plane across multiple active switches making it a virtual switching fabric, enabling interconnected switches to perform as single Layer-2 switch and Layer-3 router		
	Shall support virtual switching fabric creation across nine switches using 10G Ethernet Links		
	The modules/cables to create virtual switching fabric shall be provided		
	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol		
	IEEE 802.3ad Link Aggregation Control Protocol (LACP)		
	Ring protocol support to provide sub-100 ms recovery for ring Ethernet-based topology		
	Virtual Router Redundancy Protocol (VRRP) to allow a group of routers to dynamically back each other up to create highly available routed environments		
	Graceful restart for OSPF, IS-IS and BGP protocols		
	Bidirectional Forwarding Detection (BFD) for OSPF, IS-IS and BGP protocols		
Layer 2 Features	Shall support up to 4,000 port or IEEE 802.1Q-based VLANs		
	Shall support GARP VLAN Registration Protocol or equivalent feature to allow automatic learning and dynamic assignment of VLANs		
	Shall have the capability to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops		
	Shall support IEEE 802.1ad QinQ and Selective QinQ to increase the scalability of an Ethernet network by providing a hierarchical structure		
	Shall support Jumbo frames on GbE and 10-GbE ports		
	Internet Group Management Protocol (IGMP)		

	Multicast Listener Discovery (MLD) snooping		
	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)		
	Multicast VLAN to allow multiple VLANs to receive the same IPv4 or IPv6 multicast traffic		
	support IEEE 802.1ad QinQ and selective QinQ		
	Should support Multicast Source Discovery Protocol (MSDP)		
Layer 3 Features (any additional licenses required shall be included)	Static Routing for IPv4 and IPv6		
	RIP for IPv4 (RIPv1/v2) and IPv6 (RIPng)		
	OSPF for IPv4 (OSPFv2) and IPv6 (OSPFv3)		
	IS-IS for IPv4 and IPv6 (IS-ISv6)		
	Border Gateway Protocol 4 with support for IPv6 addressing		
	Policy-based routing		
	Unicast Reverse Path Forwarding (uRPF)		
	IPv6 tunnelling to allow IPv6 packets to traverse IPv4-only networks by encapsulating the IPv6 packet into a standard IPv4 packet		
	Dynamic Host Configuration Protocol (DHCP) client, Relay and server		
	PIM Dense Mode (PIM-DM), Sparse Mode (PIM-SM), and Source-Specific Mode (PIM-SSM) for IPv4 and IPv6 multicast applications		
	MPLS capability including MPLS VPNs and MPLS Traffic Engineering (MPLS TE)		
	VPLS for data center to data center communication at Layer 2; provides support of hierarchical VPLS for scalability		
	Shall provide support of VPLS for scalability		
QoS and Security Features	Access Control Lists for both IPv4 and IPv6 for filtering traffic to prevent unauthorized users from accessing the network		
	Port-based rate limiting and access control list (ACL) based rate limiting		
	Congestion avoidance using Weighted Random Early Detection (WRED)		
	Powerful QoS feature supporting strict priority (SP) queuing, weighted round robin (WRR), weighted fair queuing (WFQ), weighted deficit round robin (WDDR) and weighted random early discard (WRED)		
	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port		
	Media access control (MAC) authentication to provide simple authentication based on a user's MAC address		
	Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers		
	Port security and port isolation		
Management Features	Configuration through the CLI, console, Telnet, SSHv2 and Web browser management interfaces		
	SNMPv1, v2, and v3 and Remote monitoring (RMON) support		
	sFlow (RFC 3176) or equivalent for traffic analysis		
	Management security through multiple privilege levels with password protection		
	FTP, TFTP, and SFTP support		
	Port mirroring to duplicate port traffic (ingress and egress) to a local or remote monitoring port. Shall support minimum four mirroring groups		
	RADIUS/TACACS+ for switch security access administration		
	Network Time Protocol (NTP) or equivalent support		
	Shall have Ethernet OAM (IEEE 802.3ah) management capability		
Software Defined Networking (SDN) Capability	OpenFlow protocol capability to enable software-defined networking		
	Allows the separation of data (packet forwarding) and control (routing decision) paths, to be controlled by an external SDN Controller, utilizing OpenFlow protocol		
Environmental Features	Shall provide support for RoHS and WEEE regulations		
	Shall be capable of supporting both AC and DC Power inputs		

	Operating temperature of 0°C to 45°C		
	Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A; EN 55022 Class A		
Warranty	Three Years Warranty shall be offered directly from the switch OEM.		

8 - 10G SFP+ LC SR MM Transceivers for Core Switch (For Item No:5) – 4 Nos.			
BRAND PREFERRED: As same as Item No.:5			
Feature	Description	Compliance Yes/No	Remarks
Make (Brand)			
Model			
Type	10G SFP+ LC SR MM transceiver to use in Core Switch.		
Transceiver form factor	SFP+		
Warranty	One Year		

9 - 10G SFP+ LC SR MM Transceivers for existing HPE 5130 Switch – 2 Nos.			
BRAND PREFERRED: HPE Aruba			
Feature	Description	Compliance Yes/No	Remarks
Make (Brand)			
Model			
Type	10G SFP+ LC SR MM transceiver to use in Existing HPE 5130 Switch.		
Transceiver form factor	SFP+		
Warranty	One Year		

10 - Microsoft Windows Server 2025			
SL.NO	Description of Requirement	Qty	Compliance Yes/No
10	Windows Server 2025 Standard - 2 Core License Pack (DG7GMGF0PWHC)	16	

11 - Virtualisation – 1 No.	
Details	Compliance Yes/No
Domain Server needs to be installed and configured	
Server need to be virtualized by using Microsoft Hyper-V	
Supplied Storage Box need to be installed and configured based on customer's requirement.	
File Server need to be configured either on Basic OS or on virtualized VM.	
Oracle 10g Enterprise need to be installed and configured on Windows STD 2022. L1 bidder need to share End used details where Oracle 10g Enterprise is installed and running on Win 2022 STD.	
Additional VMs need to be installed and setup based on customer requirement during the time of initial installation/setup.	
Support: One year	

GENERAL TERMS & CONDITIONS

1. Inspection:

The equipment under the purview of your supply should be inspected by your own technical experts at your works, and such Inspection Report should be forwarded to us in triplicate. However the TRCMPU reserves its right to inspect at any stage of fabrication / manufacture of the equipment / material. You should intimate TRCMPU without fail when the equipment is ready for inspection, including the stage wise inspection. You should not proceed with further manufacture and / or dispatch of equipment, without obtaining a clearance certificate after inspection or our written permission. You should forward to us the Test Certificates wherever applicable, obtained from concerned authorities / principal manufacturers either regarding quality of any other details of the items utilized in the process of manufacture / fabrication.

2. Dispatch Instructions:

The materials are to be dispatched to the project site by the mode of transport specified in the order under intimation to us. Depending on the type of material, you shall have to carry out proper packing / crating to avoid breakages in transit. Other details of dispatch such as marking consignee's particulars etc. are mentioned in the Purchase Order. For using any mode of transport other than the specified one, prior concurrence from us in writing should be obtained. All consignments should be dispatched on freight paid basis irrespective of price basis. In the event of freight payable extra by us, you shall have to obtain our prior approval and produce necessary documentary evidence in support of your claims. Unless otherwise stated, the original RR/LR should be sent by Registered Post directly to the consignee along with a copy of invoice and 2 copies of Delivery Challan / Packing List.

3. Insurance

You shall have to arrange all transit risk insurance, warehouse to warehouse basis including storage risk coverage for a period of 6 months from the date of arrival of goods at destination for the items to be supplied by you. In cases where orders are placed on ex-works basis, the premium shall be paid by us at actual to you against production of documentary evidence. In the event of any damage to / loss of consignment in transit, it will be your responsibility to lodge necessary claims with the carriers / underwriters and pursue them till settlement. Since the insurance policy will be obtained in our name, we shall, if required, give you necessary authorization letter authorizing you to lodge and pursue claims on our behalf with the carriers / under writers. You shall also have to make good the losses / damages occurring in transit by making replacement / payment to us in the first instance; if claims are settled by the underwriters and any amounts are realized by us, the amounts thus realized in settlement of claims shall be reimbursed to you. In other words, the prima facie responsibility for getting compensation for the damages / losses incurred, due to all transit hazards, if any, rests with you.

In cases where the purchase order is placed on "free delivery at site" basis, no insurance premium will be paid by us. However in such cases also, all transit risk insurance policy must be obtained to safeguard your own interest and to protect the material against transit hazards.

4. Delivery

The stipulated delivery time given in the Purchase Order is the essence of this contract. You must therefore, strictly add here to the delivery schedule mentioned in the Order.

5. Demurrage

You shall bear and reimburse to us full demurrage if any, paid by reason of delay on your part in forwarding the original dispatch documents at the destination mentioned in the Purchase Order.

6. Rejection:

We reserve the right to reject the goods either in part or full if at the time of delivery, if it is noticed that the goods supplied do not conform to the specifications / description given in the Purchase Order. The rejection, if any, will be intimated to you in writing within a reasonable time. You will be liable to repair / replace the rejected goods within the stipulated time. Till the repair / replacement is made, the rejected goods shall be lying at your risk, cost and responsibility. If you do not arrange to repair / replace the rejected goods within the period stipulated by us, we may dispose of such goods at your risk and in the manner which we think fit. We shall be entitled to retain the proceeds of disposal either in part or full towards the expenses incurred on storage, handling and disposal of the rejected goods. We shall also be entitled to recover the expenses made by us on storage and handling of such rejected goods till the goods are removed from our premises/stores.

7. Liquidated Damages and Recovery of Advance:

The accepted delivery schedule of supply and/or installation shall be governed by the Liquidated Damages and Recovery of Advance clause. Each unit of an item shall be delivered to destination and ready for operation not later than the delivery date specified in the purchase order. If you fail to deliver any of the goods or perform the services within the time period(s) specified in the purchase order, TRCMPU shall without prejudice to its other remedies under this purchase order, deduct from the order price as liquidated damages, a sum equivalent to 0.5% of the full Purchase order value for each week of delay. The total amount so deducted shall not exceed 5% of the purchase order value. Once the maximum is reached the TRCMPU may consider cancellation / termination of purchase order.

In case you fail to supply the equipment within the stipulated delivery period plus 20% of the same as grace period, subject to a minimum of 15 days, the purchase order shall stand cancelled and the supplier shall refund the advance, if paid, along with interest at the rate of 18% per annum compounded quarterly on the last day of March, June, September and December, on the advance paid, for the entire period for which the advance was retained by the supplier. This will be without prejudice to other remedies like risk purchase etc. Any incremental taxes, duties and levies on account of the delay in the execution of the purchase order by you will be to your account.

8. Guarantee

The supply of equipment as well as installation, if entrusted, shall have to be carried out by you to the entire satisfaction of TRCMPU. You shall also guarantee to repair / replace without any extra cost, the items or parts thereof, if found defective due to bad designing, workmanship or substandard material brought to your attention within 12 months from the date of putting on use / commissioning or 18 months from the date of receipt of material at site whichever is earlier. If it is necessary to send the defective equipment or parts thereof to your works for repair / replacement, without forming any precedence, the cost of repacking, loading, unloading, transportation from the site to your works and back to site shall have to be borne by you.

The guarantee however does not cover any damage resulting from normal wear and tear or improper attendance or mishandling of the equipment during repairs by personnel other than the supplier or his authorized agents.

In case of installation jobs you shall have to guarantee the complete installation for satisfactory performance for a minimum period of 12 months from the date of commissioning of the plant / equipment. Any defect arising out of faulty erection / installation or use of substandard material or workmanship shall have to be rectified by you at your cost.

9. Warranty

You must provide a warranty for a minimum period of 3 years from the date of commissioning of the equipment for satisfactory performance of the supplied equipment according to the designed / rated / installed capacity or any other norms fixed by TRCMPU.

10. Specifications & Manuals:

Operation and maintenance manuals and service instructions along with the drawings showing details of part list against each item of your supply be sent to us in triplicate. **You should also furnish us service requirements like water, electricity, lubricant, air etc., for each equipment wherever applicable.**

You shall provide a list of spare parts, which will be required for the equipments supplied by you for at least one year of normal operation with the names and the addresses of the manufacturers from whom they can be procured. The list should contain the code numbers of the parts which are required to be procured, in addition to the machine number, models etc.

13. Sub- Contract

In the event of awarding sub contract to any party / parties by you for the manufacture / supply / erection of any parts / spares / components that will be used in the ordered equipment, you must furnish us details about your sub signature of bidders, their experience, specialization etc. The sub-contract can be awarded by you only after obtaining written approval from us. In the event of sub-contract also the prima facie responsibility rests on you regarding quality, quantity, guarantee / warranty of the materials supplied by the sub-signature of bidders.

14. Force Majeure

The terms and conditions mutually agreed upon shall be subject to Force Majeure Clause. Neither the supplier nor the purchaser shall be considered in default in performance of his / their obligations here under if such performance is prevented or delayed because of war, hostilities, revolution, civil commotion, strike, epidemic accident, fire, wind, flood, earthquake or because of any law order proclamation, regulation or ordinance of any Government or of any act of God or any other cause whether of similar or dissimilar nature, beyond the reasonable control of the party affected. Should one or both the parties be prevented from fulfilling his / their contractual obligations by a state of Force Majeure lasting continuously for a period of six months, the two parties should consult each other regarding the future implementation of the contract / purchase order.

15. Power

Power will be supplied free of cost at one point. The bidder shall make his own arrangements to provide necessary cables isolators etc to tap the power to the point of requirement during erection work, as per standards.

16. Arbitration

In case of any dispute, the Registrar of Co-operative Societies of Kerala State shall be the sole Arbitrator as per the provisions of Kerala Co-operative Societies Act 1969.

17. Employees state insurance

The contractor shall arrange for insurance etc. of his people employed for erection and installation work as per ESIC act workman compensation and any other provision to meet statutory requirement of various labour Act / Rules. In case of accident to any of the workers during the period of installation, TRCMPU shall not bear any liability what so ever, the entire responsibility primary and final in this respect will be that of contractor.

18. Jurisdiction

THIRUVANANTHAPURAM (KERALA) Only

FORM OF AGREEMENT
(On Non-Judicial Stamp Paper of Rs.200/-)

This agreement made on the ____ day of _____, 20__ between the Thiruvananthapuram Regional Co-operative Milk Producers' TRCMPU Ltd., Thiruvananthapuram - 695 004 (hereinafter referred to as "the TRCMPU ") of the one part and of _____ (hereinafter referred to as "the Contractor") of the other part:

WHEREAS the TRCMPU is desirous that certain goods and ancillary Services should be provided by the Contractor, viz. _____ and has accepted a bid submitted by the Contractor in response to the TRCMPU 's Bidding Document Reference No. _____ for the supply of those goods and services in the sum of Rs. _____ (Rupees _____ only) hereinafter referred to as "the Contract Price")
NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- In this agreement words and expressions shall have the same meaning as in the Terms & Conditions in the above-referred Tender Document.
- The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:

The offer and the price schedule(BOQ) submitted by the Contractor:

- (a) The schedule of requirement and the technical specifications in Bidding Document.
- (b) The terms and conditions in Bidding Document :
- (c) The TRCMPU 's Order No. _____ dated _____.

- In consideration of the payments to be made by the TRCMPU to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the TRCMPU to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the TRCMPU's Order and Bidding Document.
- The TRCMPU hereby covenants to pay the Contractor in consideration of the provision of the Goods and Services and the remedying of defects therein, the contract price or such other sum as may become payable under the provisions of the Order at the times and in the manner prescribed in the order and Bidding Document.

IN WITNESS whereof the parties hereto have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed and delivered
for and on behalf of the within
named contractor of the other part

CONTRACTOR.

In the presence of witness

1. Signature
Name and address

2. Signature
Name and address

Signed, sealed and delivered
for and on behalf of the within
named TRCMPU

MANAGING DIRECTOR.
TRCMPU Ltd.,

In the presence of witness

1. Signature
Name and address

2. Signature
Name and address