(Indian Council of Medical Research) 20-A, Dr. Ambedkar Road, Pune: 411 001. (INDIA) Website : <u>http://www.icmr.nic.in</u> ,<u>www.niv.co.in</u> E-mail : <u>purchase-niv@gov.in / nivpurchase@yahoo.co.in / nivimports@gmail.com</u> Tel. No. : 020-26006209/229/290

### NOTICE INVITING TENDER

### Tender No. ICMR-NIV/SAC EQPT/ Purchase/2021-22Due on: 16-03-2022

Quotations/Tenders are invited from reputed manufacturers, suppliers or their representatives for supply, installation, testing, demonstration, training and commissioning of laboratory instruments / equipments; details of which are given in Part-I of tender document.

The document containing three parts (Part-I: Technical specifications, Part-II: Terms & Conditions and Part-III: Checklist), is available in our websites : **www.icmr.nic.in**, **www.niv.co.in & www.eprocure.gov.in.** The same may be downloaded and offers be submitted to The Director, ICMR-National Institute of Virology, Pune in sealed envelope. Last date for submission of tender is <u>06<sup>th</sup> April, 2022 by 11.00 am</u>. In case any bidder fails to follow any or more of these conditions, the offer shall be summarily rejected. Late/incomplete quotations will not be considered.

Bidders are advised to regularly visit ICMR-NIV website : <u>www.niv.co.in</u> for corrigendum / amendments, if any, that will be notified only on the above NIV website. Director, ICMR-NIV, Pune reserves the right to accept or reject any/all applications without assigning any reason thereof.

#### DIRECTOR

### Crucial Dates

Bid Submission Start Date	17/03/2022	09.00 am.
Last date of Bid Submission	06/04/2022	09.00 am.
Opening date of Bid	06/04/2022	11.30 am.

## PART - I : SCHEDULE OF REQUIREMENTS :

Sr.No	Ref No.	Equipment	Qty.
1	PP. 1730 Bio informatics	Server	01
2	PP. 4610 Bio informatics	Server	02

- Server Qty 2 no.
   Sever Qty 1 no.

Specification Attach.

### Part – II : TERMS & CONDITIONS

#### IMP Note: (A) These terms \_\_\_\_\_ will not be considers.

- (b) The terms & conditions mentioned below shall be binding and no other terms and conditions of the tenderers shall be accepted by ICMR-National Institute of Virology, Pune. No correspondence in this regard will be entertained.
- 1. Tenders are requested to submit detailed tender for each of items separately in their own forms under Single Bid System for items mentioned in the PART-I, in sealed envelope. The equipment quoted should be readily available and should be delivered within one month from the date of issue of Purchase Order.

#### 2. Submission of Bids :-

- (a) Tender / Quotation may be submitted at Inward Section, ICMR-NIV, Pune-411 001.
- (b) Last Date for submission of bid: 6<sup>th</sup>April, 2022 till 09.00 am.
- (c) The sealed envelope should be superscripted "Tender for (Name of the item); due on 06.04.2022 before 11.00 am" and to be submitted to the address given below so as to reach before due date & time.

The Director ICMR-National Institute of Virology, 20-A, Dr. Ambedkar Road, Pune 411 001

Attn : Administrative Officer, Purchase Section

Bidder's full address should also be indicated on the envelope

- (d) Bid received after the due date & time will not be considered under any circumstances.
- (e) ICMR-NIV, Pune will not be responsible:
  - 1. For delay/late bid submitted/sent by post /courier etc.
  - 2. Forenoon receipt of bid at proper place.
  - 3. Any bid received by ICMR-National Institute of Virology, Pune after the due date and time will not be accepted/considered under any circumstances.
- (f) Opening of Bids: Bidders / agent need not be present while opening of bids under single bid system. Tender opening Committee of the Institute will open the bid internally. Subsequently Technical Committee of the Institute will evaluate the bids. The lowest Evaluated bidder (lowest of technically qualified bidder) as per recommendation of Technical Committee will be accepted in each case. Decision of technical committee/competent authority of this institute will be final and binding in this regard.
- 3. BID SECURITY/EARNEST MONEY DEPOSIT (EMD): A Bid Security or Earnest Money equivalent to minimum two per cent of value of the system/equipment must be furnished along with the tender in the form of Demand Draft from a scheduled Bank drawn in favour of the Director, NIV, Pune, payable at State Bank of India, Pune Main Branch. EMD can also be furnished in the form of Bank Guarantee, as per specimen enclosed at Annexure `A'. Bank Guarantee furnished other than the given specimen format will not be accepted and such tenders will be rejected straight away. Offers, if received without Bid Security will summarily be rejected. In case of exemption of EMD, the copy of the document in support of exemption may be attached with the bid.

**EARNEST MONEY DEPOSIT (EMD)** of successful bidder will be returned only on receipt of Performance Bank Guarantee. The Earnest Money of unsuccessful bidder whose technical bid has not been found suitable will be returned after receipt of Technical Committee recommendations. Such bidders will have to furnish request letter for refund of their EMD along with a Pre-receipt, duly signed on a revenue stamp of one rupee by an authorized signatory. EMDs/Security Deposits that remains unclaimed for consequent three financial years will be forfeited and credited to the Govt. treasury. No interest shall be payable on Bid Security/EMD/Security Deposit.

- 4. Performance Security/Security Deposit: The successful bidder shall furnish an unconditional Performance Security in the form of Bank Guarantee from a commercial scheduled bank for 10% or higher (as may be decided by the Competent Authority) of the order value within 15 days of placement of the order. An undertaking that the bidder agrees to give security deposit/performance bank guarantee must be submitted with the bid, failing which the bid shall not be considered. If the bidder fails to submit the Performance Security as mentioned above, the Contract shall be deemed as terminated and the order will be placed with any other bidder. Performance Security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. No interest is payable on the Performance Security.
- 5. The tenders must be clearly written or typed without any cancellations / corrections or overwriting. If there exists a difference in the amount quoted in words and numeric the lowest of them will be taken as the amount.
- 6. The total payable cost is to be quoted **preferably in Indian Rupees for FOB at ICMR-NIV, Pune**.
- 7. The Bid should accompany with complete specification, Manufacturer's name, address and relevant Literature / Brochures with Warranty terms & an undertaking that the bidder agrees to give security deposit etc.
- 8. The bidder who submits the bid on behalf of their principals should produce documentary evidence in support of their authority to quote or submit proforma invoice of their principals.
- 9. Indicate the names of the reputed Indian Organizations including ICMR Institutes/Centers where similar equipment was supplied and may attach the satisfactory performance report of the equipment from user Organization and the price finally paid.
- 10. The tenders is required to furnish the Permanent Account Number (PAN) allotted by Income Tax Department. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration etc. should also be provided in the offer/bid. Xerox copy of GST no. also required.
- 11. Concessional GST @ 5% will be applicable as per GOI norms for research institutes. In this regard, ICMR-NIV will provide GST concession certificate to the successful bidder.
- 12. The tenders has to state in details the Electrical Power/UPS requirements, floor Space, head room, foundation needed and also to state whether Air-conditioned environment is needed to house the system etc. and to run the tests. i.e. pre-installation facilities required for installation in the bid.Cost of the items should be mentioned clearly in the offer like:
  - a) The optional and any other essential items / accessories required for the maintenance of the equipment for the next three years should also be specified in the offer separately.
  - b) Packing, Forwarding, Freight & Insurance and Commissioning Charges, if any extra, may be quoted separately in the Bid.

- c) In case the quote is F.O.R./F.O.B basis, estimate insurance coverage charges should be paid by supplier.
- d) C.I.F value by Airfreight/Ocean freight, if any.
- e) The actual Tax Percentage if any should be specified clearly.
- f) Equipment to be the make/brand and name and address of the manufacturer, Country of origin, Country of shipment and currency in which rates quoted are to be mentioned.
- 13. Discount offered should also be mentioned clearly in the bid.
- 14. In case of Foreign Quote, the address of Principal's / Manufacturer's and their Banker's details should be furnished. The mode of dispatch should be by Air Post Parcel/Ocean Freight/Air Freight (on competitive rates) and on Freight to-pay basis only. The approximate dimensions of the packages and weight of consignment are to be indicated. The Principal supplier should clearly indicate the address of the Indian Agent and percentage (%) of Agency Commission payable if any, to be paid to them directly in Indian Currency, which will be paid after the receipt of consignment in good condition, satisfactory installation, commissioning and training of the ordered equipment.
- 15. The make / brand and name and address of the manufacturer, **Country of Origin**, **Country of Shipment and currency** in which rates quoted are to be mentioned.
- 16. Details regarding terms of payment must be mentioned clearly.
- 17. Cargo consolidations and custom clearance: ICMR-National Institute of Virology, Pune has its own freight forwarder and custom house agent for all ICMR-National Institute of Virology, Pune imports. Please note that all the consignments have to be routed through our Freight Forwarder and Custom House Agent or their associates only. Name & address of our Custom House Agent can be obtained from Admn. Officer of this institute while submitting your bid, you may confirm this condition.
- 18. Tenders which are submitted without following the proper procedure will not be accepted :
  - (a) Late/Unsigned/Incomplete Tenders.
  - (b) Conditional Offers.
  - (c) Tenders submitted by Fax / E-mail
  - (d) Tenders, not accompanied an undertaking that the bidder agrees to give Security Deposit/Performance Bank Guarantee, will summarily be rejected.
- 19. Based on the above information ICMR-National Institute of Virology, Pune will have its option to obtain details of the goods, their performance, after sales services etc. for evaluation of the tender, directly from the concerned Labs./Scientist etc.
- 20. Attach a copy of latest DGS&D, New Delhi registration Certificate under the compulsory Scheme of Ministry of Finance regarding the registration of Indian Agent of foreign supplier wherever it is applicable.
- 21. The import license is covered under OGL policy of 2011 2016.
- 22. (A)In case of Indigenous Items, the offer should contain the Basic Price and percentage of Excise Duty and should be shown separately, since NIV, Pune is exempted from payment of Excise duty vide Govt. Notification No.10/97-Central Excise dated 1<sup>st</sup> March, 1997.

(B) NIV is exempted from payment of Custom Duty vide Govt. Notification No.51/96-Customs dated 23<sup>rd</sup> July, 1996. However, custom duty if any will be paid by ICMR-NIV on production of Bills.

23. **Penalty for delayed Services/LD:** If the supplier fails to Supply, Install, Commission and Training for the system as per the specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of one percent of order value Page 5 of 9

per every week of delay subject to a maximum of 10% beyond the due date and such money will be deducted from any money due or which may become due to the supplier. ICMR-National Institute of Virology, Pune reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties, if any, will be deducted from the Security Deposit.

- 24. Goods should not be dispatched until the Vendor receives a firm order.
- 25. Please indicate page nos. and put your seal on all pages of quotation.
- 26. The purpose of certain specific conditions is to get or procure best Equipment/service etc. for ICMR-National Institute of Virology, Pune. The decision of Technical Committee shall be the guiding factor for technical short listing.
- 27. Interpretation of the clauses in the Tender Document/Contract Document: In case of any ambiguity / dispute in the interpretation of any of the clauses in this Tender Document, Director, ICMR-National Institute of Virology, Pune's interpretation of the clauses shall be final and binding on all parties.
- 28. All disputes are subject to exclusive jurisdiction of Competent Court and Forum in Pune, India only.
- 29. The Director, ICMR-NIV, Pune reserves all the rights to accept or reject any/all in full or in part without assigning any reason.

### 30. Warranty & Maintenance :

The following conditions are applicable for warranty & maintenance contract:-

- a) 3 years comprehensive warranty and 2 years non comprehensive services for equipment as <u>free of cost</u>.
- b) Non-comprehensive annual maintenance from 6<sup>th</sup> to 10<sup>th</sup> years as decided by the appropriate Technical Committee.
- c) Provide spare parts to maintain the equipment, up to 10 years.
- d) Give discount on list price of all spare parts up to 10 years.
- e) Provide 2 preventive maintenance visits per year and also all the breakdown calls as and when required.
- f) The duration of warranty period will start after proper installation of the equipment and submitting user's satisfactory report.
- g) 0.1% of FOB as penalty per week till the warranty period, if the instrument remains in non working condition for more than 18 days.
- h) When the equipment is under warranty/comprehensive maintenance, it would be the responsibility of the manufacturer/dealer/agent to procure spare parts and the Institute will not incur any expense on duty, octroi or handling charges.
- i) The detailed circuit diagram along with trouble shooting procedure and operational manual would be provided to the Institute/Centre along with the equipment.
- j) Onsite training to the users after installation is to be given.
- 31. "The supplier should submit the IQ OQ/IQ PQ (Installation Qualification-Operational Qualification/Installation Qualification-Performance Qualification) certificate after successfully completion of installation and testing of equipment / installation".

#### 32. Payment :

(a) No advance payment is allowed under any circumstances. 100% payment in will be released by user transfer/FDD through the SBI, Main Branch Pune after Receipt at the material, completion of satisfactory installation commissioning, testing and training and demonstration of the whole system.

(b) We prefer to release the payment on Bill Basis (excluding Indian Agency Commission) after receipt of consignment in good condition and satisfactory installation,

commissioning, training thereof. Alternatively, depending upon the value and foreign exchange regulations the payment can also be considered through FDD/Wire Transfer through State Bank of India for the order value excluding the Indian Agency Commission.

- 33. Supply means, "Supply, Installation, Commissioning, demonstration of the whole system and training on the site as desired by this Institute". If any \_\_\_\_\_.
- 34. **Installation:** The Bidder shall be responsible for installation, commissioning, demonstration, training etc. including the identification of defect etc. and for sales service during the warranty and thereafter. Installation, demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the goods at site and subsequently training is to be provided to the concerned officials of this institute.
- 35. After successful installation what will be the minimum down time of equipment/instrument in case of breakdown must be mentioned. If the identified firm or person fails to put the system into working condition the further alternative course of action should be suggested adhering to minimum down time.
- 36. The item should be supplied with manuals and the manuals including technical drawings should be complete in all respects to operate the system without any problem. If the manuals are on chargeable basis, the same should be specified in the offer.
- 37. **Delivery Period:** As time is the essence of the contract, delivery period mentioned in the Purchase Order should be strictly adhered to, otherwise the Security Deposit furnished by the tenderer will be forfeited and also LD clause will be applicable/ enforceable.
- 38. **Period of validity of bids:** The bid should be valid/kept open for six months from the date of opening of the bid. Further, if extension of validity would be required in future, the bidder should extend the validity only and no other modifications shall be permitted.
- 39. Amalgamation/Acquisition: In the event, the Manufacturer/Supplier proposes for amalgamation, acquisition or sale of its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfillment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. while submitting your bid, you may confirm this condition.
- 40. No sub-contracting will be allowed for installation or maintaining system/equipment / instrument during or after warranty period.
- 41. All the pages of these Terms & Conditions are to be duly signed by the vender and attached with the Bid, otherwise the tender will not be considered.
- 42. ICMR-National Institute of Virology, Pune will not provide any accommodation/transportation for the Engineers/Representatives for attending Installation, Commissioning, Demonstration, training etc. it is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.
- 43. All bank charges inside India to ICMR-National Institute of Virology, Pune account and outside India to Beneficiary's account.
- 44. The Tender's conditions printed on the tender or otherwise sent along with the tender shall not be binding on ICMR-National Institute of Virology, Pune.

DIRECTOR ICMR-NATIONAL INSTITUTE OF VIROLOGY PUNE

### ANNEXURE - 'A'

### **BID SECURITY FORM**

Whereas	*(hereinafter
called "the Bidder") has submitted its bid dated	date of submission
of bid)for the supply of	(Name and/or description of the
goods) (hereinafter called "the Bid").	
KNOW ALL PEOPLE by these presents that WE	
(name of bank) of(name of the coun	try), having our registered office
at(address of bank) (herein	nafter called "the Bank"), are bound
unto THE DIRECTOR, ICMR-NATIONAL INSTITUTE O	F VIROLOGY, PUNE (hereinafter
called "the Purchaser") in the sum of(mention	n here the EMD amount) for which
payment well and truly to be made to the said Purchaser, th	he Bank binds itself, its successors,
and assigns by these presents. Sealed with the Com	mon Seal of the said Bank this
day of20 THE CONDITIONS of	this obligation are:

- 1. If the Bidder withdraws it's bid during the period of bid validity specified by the Bidder on the Bid Form; or
- 2. If the Bidder, having been notified of the acceptance of it's bid by the Purchaser during the period of bid validity:
  - a) Fails or refuses to execute the Contract Form if required; or
  - b) Fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one of both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to one year after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the Bank)

• Name of Bidder

## Part – III : CHECKLIST

### Bidders should indicate whether the following are enclosed with the offer.

1. Bid Security/EMD	(YES/NO)
2. Undertaking that the bidder agrees to give a Security Deposit an	nd
Performance Bank Guarantee for 10% of order value.	(YES/NO)
3. Authorization letter from Principals.	(YES/NO)
4. Self Attested copy of Tax Registration certificate	
(GST etc) as applicable	(YES/NO)
5. Agreements / Purchase orders, if any, from the clients for whom	n similar
Supply has been made by the bidder in last three years.	(YES/NO)
6. Copy of ISO 9002 or equivalent Certificate if any.	(YES/NO)
7. Copy of DGS&D Registration if any.	(YES/NO)
8. Compliance sheet with any deviation with reference to the terms	s and
Specifications of the equipment. This should be furnished comp	ulsorily. (YES/NO)
9. LD clause agreeable.	(YES/NO)
10. Supply of spares for 10 years	(YES/NO)
11. Amalgamation/Acquisition: Successor agreeable to fulfill the	
contractual obligation.	(YES/NO)
12. Free replacements during warranty period	(YES/NO)
13. Payment terms of ICMR-National Institute of Virology, Pune acc	ceptable (YES/NO)
14. Warranty clause of ICMR-National Institute of Virology, Pune ac	cceptable (YES/NO)
15. IQ OQ/IQ PQ Certificate acceptable	(YES/NO)

## Server : 1 No PP No. 1730 Bioinformatics and Data Management Group Technical Specifications

Form Factor/Height	1U rack server
Compliance	Offered server should be certified for running Vmware latest edition and Windows OS
Processors	Server to be configured with 2 * Intel Xeon Slver 4216 CPU or better
Memory	Server to offer with 192 GB DDR4 2933 MHz memory Server should support upto 1 TB Memory & Intel optane DCPMM Server shall be offered with 2933MHZ DIMMs. Offered Server shall support SDDC, ADDDC, Memory mirroring and memory rank sparing
<b>Expansion Slots</b>	Server should support Up to 3x PCIe 3.0 via multiple riser options
Drive Bays	Server shouild have 10 x2.5", Server shall support SAS/SATA HDD/SSD and PCIe NVMe SSD types drives Server shall offered with 2x 300 GB 10K hot swap SAS drives in RAID 1
HBA/RAID Support	HW RAID controller with RAID 0,1, 5 support. Minimum 8 internal drive support
Security and	TPM 1.2/2.0; PFA; hot-swap/redundant drives, fans, and PSUs;Six hot-
Availability Features	swap dual-rotor system fans with N+1 redundancy ; light path diagnostic LEDs; front-access diagnostics via dedicated USB port
Network Interface	2 x 1G ports ; 1x dedicated 1GbE management port 1 * DP 16G FC HBA
Power	Offered server should be Energy Star 3.0 compliant. Server should be configured with 2x hot swap/redundant: 550W 80 PLUS Platinum;
Monitoring & Management	Server should have emnedded management solution with management software from the same OEM and management via dedicated 1G port. Management solution shall support centralized management and deployment. Offered solution shall be capable of monitoring the server storage network platfrom of the OEM from a single window Management system shall provide Proactive Platform Alerts (including PFA and SMART alerts) for processors, voltage regulators, memory, internal storage (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, RAID controllers and support Continuously monitors system parameters, triggers alerts, and performs recovery actions in case of failure to minimize downtime . The offered solution should have call to home functionality to raise service ticket automatically
Warranty	3-year Onsite support with defective media retention. Customer will retain the defective media
OEM Eligibility	All the parts in the server shall have the OEM part code, same shall be part of technical bid

Storage (associated with Servers)

# **Technical Specifications**

Architecture	The proposed storage array should be configured in
	No Single Point of failure including controller, cache, power supply and cooling fans with power cords, etc.
	All the firmware, software upgrades and hardware spare replacements for storage should be non-disruptive and should be done online without any downtime.
IOPS	The proposed storage array shall be capable of delivering more than 50K IOPS . Performance should not degrade during disk rebuild process.
Power Supplies	Redundant Power Supplies with sufficient compatible power cords
Protocol Support	Storage should be configured with FC / iSCSI protocol.
Controllers	Dual Redundant Controllers with total of 12 no of 16Gbps FC front end ports across dual controller storage system. Ports should be evenly distributed across the controllers.
	Active - Active controllers with automatic load balancing and failover across controllers
Back End connectivity	Storage Subsystem should have a backend connectivity of 12 Gbps or higher. 2x 12 Gb SAS expansion ports on each of two controllers
Raid Level /	Should Support RAID 5, RAID 6, RAID 10, RAID 0 and distributed spare for faster rebuilds.
Disks/Capacity	Storage should be offerde with 12 * 1.2 TB 10K SAS drive. 2 * 800 GB SSD to be offered as extended cache for accellerating read performance. The storage should be scalable to 2 PB RAW under the same controller pair.
Cache	Minimum 8 GB Cache per controller with Cache mirroring and battery backup. 16 GB cache across dual controller. Scalable upto 64GB cache.
Scalability	The storage should be scalable to 2 PB usable under the same controller pair, same RAID configuration using same type and size of disks. The offered storage support minimum 180 drives
Compatibility	Should be compatible with standard operating systems and hypervisors.
Features required, Software and Mgmt. Utilities	* Software to manage Storage LUNs, Hosts etc., monitoring, Multipathing, Load balancing and e-mail alerts capability.
	* Storage should support native Multipathing for all the leading industry standard operating systems. Vendor must provide Multipathing software for OS whose native Multipathing does not support proposed storage.
	* Storage should have sufficient battery backup or better technology to de- stage the cache writes.
	* Storage should have capability for online replacement of disks without affecting storage performance.
	<ul> <li>* The storage must provide features to support availability, integrity and reliability features to support 100% data availability</li> <li>* Storage should support snapshot</li> <li>* Storage should support synchronus and assynchronus replication</li> <li>* Storage should support dynamic volume and capacity expansion</li> <li>* Storage should support autoatoc load balancing to Provides automated I/O workload balancing of I/O traffic from the hosts across both controllers</li> </ul>

Power Cords	Necessary Power Cords to be provided as per Indian standard
Warranty	Onsite Response (Parts + Labour), 365x24x7 mission critical support with same day 4 hrs. response for 3 years from OEM vendor
Mangement	In built Web GUI based management

Services scope:	1) Perform hardware installation: BOM validation, racking, stacking, power-on check, firmware update
	2) Assign management IP to all servers and storage
	3) Perform cabling between server and storage
	4) Configure DE storage, create RAID Group, volume and map to servers
	5) Install VMware ESXi on server and configure management network
	6) Install vCenter Server appliance and configure
	7) Configure VM Cluster with vSwitches and datastore
	8) Migrate upto 6 VMs from existing Hyper-v host to the new cluster.
	9) Test and validate the storage and VM HA
	10) Install and configure Administrator Appliance
	a. Integrate component for monitoring
	b. Configure firmware update
	c. Configure call-home
	11) Post-install as-is documentation, Knowledge transfer and handover.
	12) Assumptions:
	a. Customer to provide required downtime for the existing VMs after taking valid backup.
	b. Any issues on the existing systems/VMs to be resolved by customer before migration
	c. Customer would provide required switch ports from Ethernet and SAN Switches
	d. VM Migration (V2V) would happen continuously one after the other
	e. Services related OS hardening and security assessment

**Approximate Cost. 24 Lakhs** 

AB Khare STO-III

Dr.Manohar Lal Choudhary

Dr.K. Alagarasu Scientist D

Trepatus Dr. Anuradha Mishra Scientist F

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Dr. Kavita Lole Scientist F & Chairperson

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Dr. Srikanth Rapole Scientist E, NCCS

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## Server : 2 No PP No. 4610 Bioinformatics and Data Management Group Technical Specifications

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Form Factor/Height	1U rack server
Compliance	Offered server should be certified for running Vmware latest edition and Windows OS
Processors	Server to be configured with 2 * Intel Xeon Slver 4216 CPU or better
Memory	Server to offer with 192 GB DDR4 2933 MHz memory Server should support upto 1 TB Memory & Intel optane DCPMM Server shall be offered with 2933MHZ DIMMs. Offered Server shall support SDDC ,ADDDC, Memory mirroring and memory rank sparing
<b>Expansion Slots</b>	Server should support Up to 3x PCIe 3.0 via multiple riser options
Drive Bays	Server shouild have 10 x2.5", Server shall support SAS/SATA HDD/SSD and PCIe NVMe SSD types drives Server shall offered with 2x 300 GB 10K hot swap SAS drives in RAID 1
HBA/RAID Support	HW RAID controller with RAID 0,1, 5 support. Minimum 8 internal drive support
Security and	TPM 1.2/2.0; PFA; hot-swap/redundant drives, fans, and PSUs;Six hot-
Availability Features	swap dual-rotor system fans with N+1 redundancy ; light path diagnostic LEDs; front-access diagnostics via dedicated USB port
Network Interface	2 x 1G ports ; 1x dedicated 1GbE management port 1 * DP 16G FC HBA
Power	Offered server should be Energy Star 3.0 compliant. Server should be configured with 2x hot swap/redundant: 550W 80 PLUS Platinum;
Monitoring & Management	Server should have emnedded management solution with management software from the same OEM and management via dedicated 1G port. Management solution shall support centralized management and deployment. Offered solution shall be capable of monitoring the server storage network platfrom of the OEM from a single window Management system shall provide Proactive Platform Alerts (including PFA and SMART alerts) for processors, voltage regulators, memory, internal storage (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, RAID controllers and support Continuously monitors system parameters, triggers alerts, and performs recovery actions in case of failure to minimize downtime . The offered solution should have call to home functionality to raise service ticket automatically
Warranty	3-year Onsite support with defective media retention. Customer will retain the defective media
OEM Eligibility	All the parts in the server shall have the OEM part code, same shall be part of technical bid

### Software (for virtualization)

1

Virtualization Software	Vmware essential plus kit or better with 3 year SnS
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Services scope:	1) Perform hardware installation: BOM validation, racking stacking, power-on check, firmware update
	2) Assign management IP to all servers and storage
	3) Perform cabling between server and storage
	4) Configure DE storage, create RAID Group, volume and map to servers
	5) Install VMware ESXi on server and configure management network
	6) Install vCenter Server appliance and configure
	7) Configure VM Cluster with vSwitches and datastore
	8) Migrate upto 6 VMs from existing Hyper-v host to the new cluster.
	9) Test and validate the storage and VM HA
	10) Install and configure Administrator Appliance
	a. Integrate component for monitoring
	b. Configure firmware update
	c. Configure call-home
	11) Post-install as-is documentation, Knowledge transfer and handover.
	12) Assumptions:
	a. Customer to provide required downtime for the existing VMs after taking valid backup.
	b. Any issues on the existing systems/VMs to be resolved by customer before migration
	c. Customer would provide required switch ports from Ethernet and SAN Switches
	d. VM Migration (V2V) would happen continuously one after the other
	e. Services related OS hardening and security assessment

Approximate Cost. 22 Lakh



Dr.Manohar Lal Choudhary Scientist D

Dr.K. Alagarasu Scientist D

ATTERANS Dr. Anuradha Mishra Scientist F

Kelole

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