

অসম বিজ্ঞান প্রযুক্তিবিদ্যা আৰু পৰিৱেশ পৰিষদ  
(বিজ্ঞান আৰু প্ৰযুক্তি বিভাগ, অসম চৰকাৰ)

**ASSAM SCIENCE TECHNOLOGY AND ENVIRONMENT COUNCIL**  
(Department of Science & Technology, Govt. of Assam)

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No. ASTEC/ARSAC/ 1877/2018/PART-1/2144

Date: 17 / 08 /2020

**Notice Inviting Quotations**

Sealed quotations along with an IPO of Rs. 20/- (Rupees twenty) or Court fees of Rs. 8.25 only (non-refundable) in favour of Director, ASTE Council, G.S. Road, Guwahati – 781005 are invited from OEM / or its authorised dealers for supply and installation **augmentation of IT infrastructure for in house outreach facility** to be establishment at ASTEC premises Bigyan Bhawan G.S. Road, Guwahati-5.

The quotations will be received up to 2.00 P.M. of 21<sup>th</sup> September 2020 and the quotation will be opened on the same day at 3.00 P.M. in the presence of bidders or their representatives. This is a “turnkey basis” work and hence, supply, installation and commissioning etc. of augmentation of IT infrastructure will be completed within 60 days from the date of issue of the work order.

Director ASTEC reserves the right to accept any offer that would be advantageous to the office and not binding to accept the lowest rate or reject all offers without assigning any reason thereof.

**The bidder must submit their quotations in two bid systems, i.e. Technical Bid and Financial bid. All relevant documents, including evidences should be inserted into Technical Bid. Financial Bid will be opened for those who would duly qualify in the Technical Bid. Only rates against the work will be inserted into financial bid as per our prescribed format.**

**ELIGIBILITY OF THE BIDDERS**

Sl. No.	Eligibility of the Bidders
1	This invitation for bids is open to all reputed original equipment manufacturers (OEM) or their Authorised Systems Integrator specifically authorised by the OEM to quote on their behalf for this tender, tender specific authorisation letter should be submitted mentioning NIQ no. and date.
2	The Bidder should be a registered company/firm in India. The certificate of registration/ incorporation documents should be enclosed in technical bid. Moreover, OEM / authorised dealer must have PAN number and GST number.
3	The Bidder have not been blacklisted in any Government/ Government undertaking/Public sector companies. A self –declaration letter by the Bidder, on the company’s letterhead should be submitted along with technical bid.
4	The bidder should be ISO 9001-2008 & ISO 14001 certified company/firm
5	In case of authorised dealer, the system integrator must be at least tier-II partner of the OEMs and should also provide letter of authorization from the OEMs for this tender stating NIQ no. of ASTEC. The bidder should participate as a single party and no consortium is allowed.
6	OEM / its authorized dealer must have at least three the proven experiences in delivery, installing and supporting similar solutions during last three years. Relevant Documentary evidences like work orders to be furnished.
7	Bidder should have previous Experience of Implementing minimum 3 Nos Projects of server and storage solutions of Min value of Rs. 20 Lakhs each order value or more in Any Govt Organizations, PSU, Govt Affiliated Colleges, Universities etc. Documents Like Supply Order copy along with Job completion Certificate should be submitted along with the Technical Bid)
8	It is essential that the bidder is well acquainted with the working condition of Assam and should be able to provide after sales service for next 5 years as per requirement of ASTEC. The bidder must submit an affidavit confirming to provide support/ service during the warranty period and after completion of warranty period the selected bidder must have to go for mandatory AMC period.
9	If OEM participating directly in this tender, their 5 years existence / presence in this line in India is necessary. Necessary evidences are to be attached in technical bid.

10	The bidder must have service centre in Guwahati for the last 5 years (Proof of Office like Municipal certificate/Trade License etc.). It should be making sure to provide on-site support in next working day. Document regarding that should be submitted along with technical bid.
11	The Bidder Should have Certified Engineers in their establishment for offered solution. Documentary Proof in this regard should be enclosed.
12	OEM / its authorised dealer must submit the proof of address of their registered office, the phone number and email-id of its registered office including name and mobile number of responsible officers.

The bidder has to submit their bid documents in two bid systems:

- 1) **Technical bid.**
- 2) **Financial bid.**

Bidders are requested to furnish these two bid documents separately. Below mentioned documents are to be inserted into **Technical Bid** otherwise quotation will be rejected without any notice thereof: -

- i) IPO of Rs. 20/- (Rupees twenty) or Court fees of Rs. 8.25 only (non-refundable) in favour of Director, ASTE Council, G.S. Road, Guwahati – 781005 is to be attached.
- ii) Demand Draft of Rs. 80,000/- (Rupees Eighty Thousand only) only to be attached as EMD Money by way of Demand Draft in favour of Director, ASTEC payable at Guwahati. This amount will be returned to all unsuccessful bidders within two months, after finalisation of selected bidder.
- iii) Proof of address of registered office, at least 2 (two) phone nos., email id, mobile no. of responsible officer etc.
- iv) Proof of service centre at Guwahati, its full address, relevant papers / evidence if any.
- v) In case of authorised dealer, proof of authorised dealership certificate is to be enclosed. Moreover, they will have to furnish NOC from OEM that they have participated in this tender.
- vi) Proof of PAN number, GST number, valid documents of firm / partnership / company registration.
- vii) Specification of work to be done (via Annexure- I)
- viii) **Proof of financial soundness certificate:** Bidders must have to furnish below mentioned documents:
  - a) Financial statement along with Balance Sheet of last three financial years, or
  - b) Submission of Income Tax returns of last three financial years or
  - c) Financial soundness certificate of at least Rs.20 lakhs or above are to be furnished by any nationalized / corporate banks.

**NB:** Quotations will be rejected if the financial strength of the bidder does not comply with the tender value.

**Financial Bid:** Financial bid will be opened for those who would duly qualify in the technical bid. Rates to be quoted in our prescribed format only.

### **Security Deposit:**

Selected bidder will have to deposit 10% of the allotted work as security deposit in favour of Director, ASTEC payable at Guwahati which will be refunded by this office after successful completion of six months. In this context, selected bidder may adjust their EMD amount of Rs.80, 000/- with security deposit.

### **Work Completion period:**

Entire allotted works (vide: - annexure-I) to be completed within 60 (sixty) days from the date of the issue of work order, failing which, work order will be stand cancelled without any noticed thereof and security deposit will automatically be forfeited. However, if selected bidder requests to the undersigned with valid and justified ground in time, this office may provide further time for completion of the work.

## **TERMS AND CONDITIONS**

1. The technical bid shall contain all the tender documents and supporting documents, excluding the cost/rate of the system. Financial bid shall contain the price of the system in our prescribed format only. If the price of the quoted system appears in the technical bid, the offer shall be summarily rejected. Both the technical and financial bids should be inserted separately into a single envelope for submission.
2. The Bidder must have valid GST Registration Certificate, PAN no., Company/Firm registration or Trade License etc. Copies of all the above certificates are to be enclosed.
3. At least 2 (two) running telephones/ cell phone numbers in service should be mentioned in the quotation, otherwise quotation will be rejected.
4. Rate should be quoted inclusive of all applicable taxes such as GST and other duties etc. including transportation etc. Applicable taxes will be deducted at source against which, necessary tax deduction certificates will be issued as and when asked for.
5. 90% (ninety) payment will be made after successful completion of supply, installation and commissioning of the said works and balance 10% (ten) will be released after successful completion of 6 (six) months.
6. All bidders must attach detailed data sheet of quoted Model / product along with the technical bid.
7. The bidder will be responsible for ensuring safe arrival of the items at the destination. Safety and insurance of the items during shipment and/or transportation shall be the responsibility of the selected bidder.
8. Entire work will be completed within 60 days from the date of issue of work order.
9. The selected bidder shall assure that the goods supplied under this tender will be new and latest version.
10. After successful installation and commissioning of the aforesaid products, all the hardware and software shall have five years onsite comprehensive warranty including all parts & free servicing. During the warranty period, the selected bidder will have to undertake comprehensive maintenance of the entire hardware components, configuration, equipment and accessories supplied by the selected bidder at the place of installation of the equipment in this office.
11. During the warranty period, the equipment should be replaced within two to three days of reporting of the defect. In case of selected bidder failing it, a standby arrangement should be provided till the equipment is replaced.
12. The selected bidder shall be fully responsible for the manufacturer's warranty for all equipment, accessories, spare parts etc. against any defects arising from design, material, manufacturing, workmanship, or any act or omission of the manufacturer / selected bidder or any defect that may develop under normal use of supplied equipment during the warranty period.
13. OEM of Server, Storage, and Workstation will have to submit an undertaking confirming that 2 Years of Additional Warranty will be provided after the expiry of the 5 Years of these items. A Separate AMC shall be executed after the expiry of the 5 years OEM Warranty Period.
14. Bidder must visit ARSAC/ASTEC before submission of NIQ so that the offered items should be compatible with existing infrastructure at ARSAC.
15. Any dispute whatsoever will be confined and settled under the jurisdiction of Gauhati High Court, Guwahati only.

**A. TECHNICAL SPECIFICATION (TS)**

**1) Entry Level Server**

**Qty: 2 no.**

Sl No	Component	Specification
1	Size	Max. 2U Rack form factor with sliding rails to fit into industry standard existing Server Rack
2	Maximum Processors Supported	2 Nos.
3	Processor	Min. 1 x Intel Xeon Silver 4200 series, min. 2.10 GHz base frequency, 10 Core 20 Threads, or higher processor with its core and Threads
4	RAM	32 GB DDR4 RAM 2666 MT/s. or higher (512 GB max Supports registered ECC DDR4 DIMMs only)
5	RAM DIMM Slot	Min.16 Nos. or more
6	Hard Disk	4 x 900 GB 2.5” SAS ,10K or higher rpm.
7	RAID Controller	Integrated RAID Controller should support RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID 50, and RAID 60. RAID Controller card with 8 GB NV Cache or higher adapter required in Server.
8	Total Hard Disk Bays	Min.8 Nos or More
9	Optical Drive	DVD Writer
10	PCIe Slot & FC HBA card	Min. 2 Nos x 16 Slots. *** Dual Port 16Gb Fiber Channel HBA should be configured, PCIe Full Height card to connect The SAN Storage
11	Power Supply:	Hot Plug power supplies with full Redundancy.
12	Server Management Software	OEM Server Management Software should be Provided
13	Graphics controller	Integrated Graphics with at least 16MB Video Memory or higher
14	Security Features	Silicon-based hardware root of trust, automatic secure BIOS Recovery & Cryptographically signed firmware update, configuration and firmware drift detection, protection against compromised firmware execution before the OS boot.
15	Network Interface	2x 1GbE ports and 2 x 10GbE SFP+ ports with 10 GbE Fiber LC Type Transceivers + 1x dedicated 1GbE management port
16	I/O Ports:	2 Nos USB Ports, 1 Management Port, 1 Video Port, 1 Serial Port One Set of keyboard & Mouse Should be Supplied.
17	KVM Cable	KVM Cable to be connected to KVM
18	Operating System installed	Windows Server 2019 Standard Core Licenses with latest Service Pack (1 Nos) with OS and support disc.
19	Fully supported Operating System	Latest edition with service pack of Canonical Ubuntu LTS, Citrix Xen Server, Microsoft Windows Server, Hyper-V (Hypervisor), Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware ESXi.
20	Manufacturer Credential	The OEM for the proposed Server must be in Leader’s Quadrant in the last two Available Gartner’s Report of “Magic Quadrant for Modular Servers” OR should have been one of the top Five (5) Server vendors By market share revenue in IDC in any of the previous 2 Quarters.
21	Warranty	OEM 5 years Onsite 24x7 Warranty with parts and labour
22	Additional requirement	During OEM warranty period defective Hard Drive shall not be returned to the Selected bidder/OEM.

## 2) Mid-Level Server

Qty:1 no

Sl No	Component	Specification
1	Size	Max. 2U Rack form factor with sliding rails to fit into industry standard existing Server Rack
2	Maximum Processors Supported	2 Nos
3	Processors	2 X Intel Xeon Gold 5220 2.2G, 18C / 36T, 24.75M Cache, Turbo, HT (125W) DDR4-2667 or higher processor and core and Threads.
4	Chipset	Latest Intel Chipset supporting the above processor
5	Memory	RAM (min/max): 128 GB DDR4 or higher and upgradable to at least 512GB RDIMM RAM
6	DIMM Slots	Min 16 DIMM Slots or higher
7	Hard Disk Drives	4 x 1.2 TB SAS or higher capacity with at least 10k RPM 12 Gbps 2.5 inch Hot-plug Drive
8	HDD bays	HDD bays supporting SAS, SATA, SSD drives (Minimum HDD Support at least 8 Drives)
9	I/O slots	At least 5x PCIe 3.0 slots *** Dual Port 16Gb Fiber Channel HBA to be configured, PCIe Full Height card to connect The SAN Storage
10	RAID levels	Integrated RAID Controller should support RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID 50, RAID 60 RAID Controller card with 8 GB NV Cache or higher adapter required in Server.
11	Network Interface	2x 1GbE ports and 2 x 10GbE SFP+ and 1x dedicated 1GbE management port
12	Power Supply	Hot Plug power supplies with full Redundancy.
13	Graphics controller	Integrated Graphics with at least 16MB Video Memory Video Memory support for 1280 x 1024 (32 bpp) & 1920 x 1200 (16 bpp)
14	Server Management.	OEM software for management of Servers must be included It should integrate with any SNMP based industry standard Network Management Software. (The SNMP MIBs for the hardware and software components shall be provided). Should provide Fault management and automatic event handling through e-mail. SNMP alerts and monitoring should be supported and enabled on all of the server types to be supplied. If separate licenses required need to be quoted separately. Should provide Pre-failure warning for: - CPU, Memory, HDD Local LED/LCD based diagnostic panel for easy fault identification.
15	Remote Management	It shall be possible to manage the server hardware and software components remotely and should support browser based graphical remote console. It shall be possible to power on/off, boot the system and upgrade of software and patches using USB/CD/DVD Drive remotely; management log Browser and CLI support should be there, should not have any limitation to specific browser.
16	Server Security	Browser and CLI support should be there, should not have any limitation to specific browser. Should support: Silicon Root of Trust: Silicon-based hardware root of trust, automatic secure BIOS Recovery & Cryptographically signed firmware update, configuration and firmware drift detection, protection against compromised firmware execution before the OS boot. Secure Boot Firmware drift/threat detection Encryption of data in internal storage and cash
17	KVM Cable	KVM Cable to be connected to KVM
18	Operating System installed	Windows Server 2019 Standard Core Licenses with latest Service Pack (1 Nos) with OS and support disc.
19	Fully supported Operating System	Latest edition with service pack of Ubuntu LTS, Citrix Xen Server, Microsoft Windows Server, Hyper-V (Hypervisor), Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware ESXi.
19	Warranty	OEM 5 years Onsite 24x7 Warranty with NBD parts replacement and labour
20	Manufacturer Credential	The OEM for the proposed Server must be in Leader's Quadrant in the last two Available Gartner's Report of "Magic Quadrant for Modular Servers" OR should have been one of the top Five (5) Server vendors by market share revenue in IDC in any of the previous 2 Quarters.
21	Support Center	The Server OEM should have local Service Center in Eastern Part of India
22	Additional requirement	During OEM warranty period defective Hard Drive shall not be returned to the Selected bidder/OEM.

### 3) SAN Storage

Qty: 1no.

Sl No	Component	Specification
1	SAN Storage Model	The proposed storage should be configured with dual active controllers. The architecture should allow modular upgrades of hardware and software for investment protection.
2	Storage Capacity	Storage should be 10 TB Usable on RAID 6 configured using 1.8TB min.10K RPM or higher SAS Drives
3	Spindle Flexibility	The array should support the following spindles: 900Gb, 1.2TB, 1.8TB or above; 4TB or above, 10K or higher RPM NL SAS. It should support 480GB or above SSD drives. Mix and match of different type of spindles should be supported behind the same pair of controllers.
4	Array Architecture	<p>The array should be equipped with N+N (with minimum of 2 array controllers) Nos. of array controllers for better performance redundancy.</p> <p>The storage system should be provided with 16 GB Cache Memory across SAN controllers</p> <p>The storage system should support Fiber Channel, iSCSI or SAS front End connectivity.</p> <p>The Storage system should be provided with 16G FC *8 ports from Day 1, necessary 8 nos LC to LC OFC patch cord of min. length 5 meters should be supplied (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)</p> <p>The storage system should support minimum 2 x 12Gbps back-end each of 12 Gbps or above without performing any controller upgrades</p> <p>The Storage array should support Auto-tiering &amp; Asynchronous replication feature, required license should be quoted</p> <p>Should support RAID 0, 1, 5, 6, 10, 50.</p>
5	Array Features (If any of the features mentioned requires license the same should be included as part of the BOM)	<p>The Storage to include licenses for Snapshots/ Virtual disk copy &amp; Thin Provisioning. Storage should support taking 1024 Snapshots.</p> <p>The SAN must allow any LUN provided to a system configured with both types of server connectivity (fiber channel or iSCSI)</p>
13	Storage capacity	10TB usable after RAID 6 using 1.8TB min. 10K RPM or higher RPM SAS drives
14	Storage scalability	The array should be scalable to a minimum of 260 disks of the offered configuration of the disk count behind the same controller pair by adding the appropriate number of spindles and disk shelves. Storage should be scalable to 3 PB Raw.
15	No single point of failure Architecture	Storage Array should be configured in a No-Single-Point-of-Failure Architecture.
16	Power Supply	Hot Plug power supplies with full Redundancy.
17	OS Support	Should support Windows server 2012/2016/2019 with latest service pack, RHEL 6/7/8, Hyper-V, Hypervisor, SLES, VMware 6.0 & 6.5. or latest with necessary OS and support discs
18	Array Management	Entire system must be manageable from a web-based HTML5 single, secure interface without requirements for a separate management device or server.
19	Warranty	5 Years 24x7 Next business day full Support with parts and labour
20	Additional requirement	During OEM warranty period defective Hard Drive shall not be returned to the Selected bidder/OEM.

## 4) Workstations

Qty: 10nos

Sl No	Component	Specification
1	Processor	Min. 1x Intel Xeon latest E or W series processor (Including intel Vpro/VT-x/VT-d) with min. 6 Core, 12 Threads, 3.30 Base Frequency, 12 MB Cache Memory or higher.
2	Chipset	Latest Generation Intel chipset supporting the above processor or higher.
3	Motherboard	Motherboard make from the same Desktop OEM (OEM logo must be embossed in the motherboard).
4	Memory	Min. 16 GB (2x8GB) ECC Memory expandability up to 128 GB or higher
5	RAM Type	DDR4 with 2666 MHz or higher.
6	Optical Drive	Internal DVD R/W drive.
7	DIMMs & Expansion Slots	4 DIMM slots or higher, minimum 3 expansion slots (Including minimum 1x PCIe x 16, 1x PCI and 1x PCIe) or higher and minimum 1 x M.2 slots.
8	Hard Disk: 1	1 x M.2 NVMe Min 256 GB PCIe Solid State Drive (Boot Drive Only for Operating System) or higher
9	Hard Disk :2	1 x 2 TB SATA 7200K RPM or higher (As a storage)
10	Graphics	NVIDIA GeForce RTX 2060 6 GB or higher graphics card (Min. Memory Interface Width of graphics card 192bit with support latest DirectX 12 and OpenGL 4.6 or higher)
11	Network	10/100/1000 on-board integrated Network Port.
12	USB / HDMI / VGA Ports	<b>Integrated USB Port:</b> Minimum 10 no's (Min 4 nos of USB 3.1 Gen-1 and 1 x USB 3.1 Type C), out of 10 Nos minimum 4 in front, 4 in back and should be easily accessible. <b>HDMI port:</b> Minimum 1 no, should be easily accessible. <b>Integrated Display Port:</b> Minimum 1 no should be easily accessible.
13	Audio	Integrated Audio controller with Internal speaker
14	Cabinet	Tool less chassis (Tower)
15	SMPS	Minimum 550 Watt or above (90% energy efficient Power Supply) Should be capable of supporting fully configured workstation.
16	Operating system certification	Windows 10 Professional with latest service pack with full recovery disc.
17	Keyboard	Standard full-size keyboard with ₹ symbol (Same desktop OEM make)
18	Mouse	Standard USB Optical scroll mouse (Same desktop OEM make)
19	Monitor (Panel Type IPS)	Minimum 24" FHD monitor (Resolution not less 1920 x 1200) with height, Tilt, Swivel and Pivot adjustable stand. Connectivity option in the monitor minimum 1 x HDMI, 1 x DisplayPort, 1 x DVI 1 x VGA and minimum 2 x USB 3.0 ports. Or higher.
20	Production Unit, Certification and Compliance	EPEAT India for the quoted Workstation model FCC, UL and ROHS for the quoted Workstation model. Minimum Energy Star 6.0 / BIS & TCO Certification for Monitor and quoted Workstation model OEM ISO 9001 and 14001 Certified India Unit (Proof of Certification of India unit to be submitted).
21	Warranty	5 years onsite 24 x7 NBD comprehensive OEM warranty with parts and labour (OEM supplied model warranty must be visible in the website in respect to each product serial number)
22	Security	Hardware based TPM 2.0, chassis Intrusion switch / Intrusion Sensor with chassis physical security cable lock slot. AI-based workstation auto performance tuning software from same workstation OEM.
23	Manufacturer Criteria (OEM)	Minimum 10 Years presence in India. OEM letter confirming that Operating system pre-loaded / pre-installed from OEM factory and service request would be placed directly with the Workstation OEM for the duration of warranty.
24	Additional requirement	During OEM warranty period defective HDD shall not be returned to the vendor/OEM.

**5) Upgradation through buyback from existing Sophos XG 210 (current XG S/N no. C2205A6X4666GA7) to Sophos XG 210 rev3 or higher 200 series model (1U) with hardware appliance + Full Guard Plus Subscription = Total protect Plus for 3 years Qty: 1No**

Sl	Specification	No.
1	Minimum : Latest Revision of HW Appliance with 6 GE ports, 2 SFP ports, 1 expansion bays for optional FleXi Port modules, 1 x SSD + Base License for unlimited users + power cable with minimum Firewall throughput 16Gbps, VPN throughput 1.45 Gbps etc.	1
2	Base Firewall (incl. Network Firewall, VPN & Wireless)	1
3	Network and application protection	1
4	Web protection	1
5	Email protection	1
6	Web server protection	1
7	Sandstorm protection	1
8	Enhanced plus support 24X7 (including appliance Hardware Warranty Support from OEM")	1

**6) Wildcard SSL subscription valid for 5 years Qty. 01No.**

Sl	Specification
1	Single Domain and it's all/multiple Sub-Domains (i.e. Single certificate to manage multiple web-sites)
2	SSL certificate is powerful Min. 256-bit encryption or higher.
3	It must be supporting most common and reliable web browser. Trusted by 99.9% of browsers, servers, and clients (e.g. Internet Explorer, Google Chrome, Mozilla Firefox, Microsoft Edge etc.)
4	Unlimited free re-issuance, move/change domains as required
5	It should be supporting Microsoft Windows, Apple Mac OS and Linux (Ubuntu/Fedora/CentOS/Redhat, etc.) and different Mobile operating System like (Android, IOS, etc.)
6	Displays the Padlock symbol in the URL address
7	2048-bit next generation SSL certificates as recommended by NIST
8	24/7 Priority customer support over phone, email, & chat

**7) Server Rack and accessories:**

SL	Item Name	
A	42 U Server Rack with Industrial min 32 amp in put Socket, Castors, Front Side Glass Perforated door, Sufficient Cooling FAN, Cable Management component.	1
B	Module 1 x 10GbE SFP+ ports with 10 GbE Fiber LC Type Transceivers (1 per switch) (Fiber SFP Module for two exiting D-Link DGS 3630-28TC Manage switch.) S/N: RZYG1H4000059 and S/N: RZYG1H4000058	2
C	Module 1 x 10GbE SFP+ ports with 10 GbE Copper Transceivers (1 per switch) (Fiber SFP Module for two exiting D-Link DGS 3630-28TC Manage switch.) S/N: RZYG1H4000059 and S/N: RZYG1H4000058	2
D	8 (POE) port GbE copper FleXi Port module for Sophos XG 210 rev3. or higher model	1
E	External Redundant Power Supply for Sophos XG UTM	1
F	Upgradation of existing Lenovo server Hard drive and at least 2x 10 GbE ML2 or PCIe adapter: 2(two) x 300 GB 2.5" SAS ,10K rpm hard drive and 2x10 GbE ML2 or PCIe adapter for our existing Lenovo Server System x3550 M5 (S/N- J33EMFE Machine Type:8869 Model:8869D2U). all accessories must be certified by Lenovo (OEM) and it will be used to upgrade existing RAID 1 to RAID 5 with 1 Hot-plug Drive.	1



Sl. No.	IPDU – Specification
	<b>Connectivity:</b>
1	RJ-45 port for configuration and management.
2	Integration between the ports on the same power strip or between two power strips should be through control center.
3	Additional feature port to integrate with temperature and humidity sensors.
4	High outlet density: Minimum 24 Power outs of 20 x C13 sockets & 4 Nos 4 x C19 sockets or more
5	Vertical Model.
	<b>Management</b>
6	Independent control of power outlets (power on/off, cycle). Virtual lock per outlet (on or off states).
7	Sequential power up with user-defined inter-outlet delays.
8	Global, true RMS current monitoring per IPDU.
9	Two-digit 7-segment LED current display on/off status LED per outlet.
10	User-defined over-current threshold with alarm.
11	Built-in visual (LED) and audible/ visual alarms.
	<b>Integration Features</b>
12	GUI interfaces.
13	Multi-outlet grouping for devices with redundant power supplies.
14	RADIUS, TACACS+, LDAP, and Active Directory.
15	Server-based authentication with local fallback.
16	Event logging via syslog.
17	Fault notification via e-mail, SMS page, SNMP trap.
18	SNMP integration with enterprise systems.
19	5 Years OEM Warranty with parts and labour

Qty: 01

### 9) Specification for the Integrated USB all-in-one conferencing device for 45+ seater Room

<b>General Requirement</b>	Complete camera, speakerphone, remote control and microphone should be an integrated single OEM solution for ease of use and seamless experience.
	System must have all required certification FCC, CE, RoHS and comply to India E-waste management rules.
	OEM for the system should be ISO 9001:2008 certified.
	All required components of the system should have Government of India - Ministry of Communication & IT approval (WPC - Wireless and planning coordination certified)
	System should be supported with latest version all windows operating system and mac OS.
	OEM for the system should be innovative and must have international recognition from Winehouse, Frost & Sullivan, let's do video, red dot etc.
<b>Camera</b>	Camera should be plug and play and should comply to UVC 1.1 standards for processing of video.
	Output: YUY2, MJPEG.
	Optical Resolution: 8 MP (4K (3840×2160)30fps, 1080P60fps, 720p30fps & 60fps) or higher
	Sensor size: 1/2.5" CMOS or better
	Port: USB 3.0 for end device connectivity.

	SNR >= 38dB or better
	FOV: Diagonal 90°, Horizontal 83°and vertical 52°or above Or better
	Aperture: F2.0 ~ 3.1
	Focal length Wide: 3.725mm, Tele: 17.88mm
	Should support autofocus.
	Smooth Motorized pan, tilt and zoom from remote control
	It should also be possible for user to control camera via simple software application in PC & Mac.
	Should support FECC: Far End camera control.
	Zoom:15x or better
	Camera Control: Standard VISCA / Mini din 6 pin or equivalent.
	+/-90° Pan range, +50°/-90° tilt range
	Minimum illumination: 80 lux
	Preset: 3 or above
	Should have Kensington Security Slot to ensure physical security of camera in conference room.
	Camera should have option to mount on Tripod stand if required.
	To be supplied with required power adaptor, regional plugs, cables minimum 3mts and mounting bracket.
<b>Microphone</b>	System should be supplied with 2 microphones from day one and have the ability to connect another similar 4 microphones or More if required in future without any external device.
	Pickup range: 15 ft / 4.5m diameter or more
	Each microphone should have four omnidirectional microphones forming eight acoustic beams
	Should have AEC (Acoustic Echo Cancellation)
	Should have VAD (Voice Activity Detector) to cut unwanted voice.
	Should have background noise suppression
	Should have mute button with LED status indicator
	Frequency response: 90Hz – 16kHz
	Sensitivity: >-27dB +/-1dB @ 1Pa
	It should be possible to extend single or multiple microphones upto 50mtrs.
	Microphone data rate: 48 kHz
<b>Speaker</b>	System should be supplied with 2 speakerphones or more from day one.
	Speaker should take power from the integrated Unit only to avoid multiple cables or power sources.
	Should have High-performance 3" (76mm) driver.
	Speaker should have the option to be mounted on wall.
	Speaker volume 95dB SPL @1W, 100dB SPL @7.5W, both +/-2dB at ½ meter
	Sensitivity: 95+/-2dB SPL at ½ meter
	Distortion: 200Hz–300Hz < 2.5%, 300Hz–10kHz < 1% @7.5W
Speaker sampling rate: 48 kHz	
<b>Others</b>	System should have the option to connect maximum 2 display devices or more in the room.
	System should give the option to connect any video source via HDMI / VGA on the table side and carry it to the display device up to 50mts or more
	System should be supplied with 3mts or more of minimum length cable to connected end device (laptop, Mac, Codec, desktop and thin client)

<b>Cable Management and ambience</b>	All necessary cables for all the components, power adaptors, regional plugs, quick start guide along with the mounting bracket should be supplied by the OEM.
<b>Remote Control</b>	Type: RF / Bluetooth with removable / replaceable batteries to ensure it don't require line of sight in conference room.
	System should be supplied with all-in-one remote control to manage Camera (Pan, Tilt, Zoom, Preset, block/ mute video).
	Range 8.5 mts or more
<b>Warranty</b>	5 Years Warranty Should be Provided for the entire components with parts and labour

**a) Smart TV cum Monitor Display unit for web conferencing**

**Qty:01 No**

<b>SL</b>	<b>Specification</b>	<b>Description</b>
1	Display Diagonal Size	Min 55 Inch / 54.60 Inch LED 60 Hz or higher
2	Active Display Area	1209.6(H) x 680.4(V)
3	Panel Technology	SVA / IPS
4	Resolution	UHD (3840 x 2160) or better
5	Pixel Pitch (mm)	0.105 x 0.315 or better
6	Brightness	350 nits or higher
7	Contrast Ratio	4000:1 or higher
8	Dynamic Contrast Ratio	100000:1 or better
9	Viewing Angle	178:178
10	Response Time (G-to-G)	Min 8 ms or better
11	Display Colors	Minimum 16.7 Millions or higher
12	Color Gamut	92 % or Better
13	Maximum Pixel Frequency	594 MHz or better
14	Key Features	UHD Smart Display with Built-in Signage software, Super clear coating, built in WIFI, BT, internal storage, Auto source switching, Remote access facility through RDP, Office 365 or any virtual desktop software
15	Orientation Supported	Landscape as well as portrait
16	Built in Speaker	Min 2 Nos speakers each of 10 watt or better
17	Input RGB ports	DVI-D
18	Video port	Min 2 Nos HDMI ports
19	HDCP Port	Min 2 Nos HDPC port
20	Secondary Video output	Stereo Mini Jack
21	WIFI & Blue tooth	Yes, Smart Display must have WIFI & Bluetooth
22	USB Port	Min 2 Nos USB ports
23	Other Ports	RS232C (In / Out) thru Stereo Jack, RJ45
24	Internal Media Player/ Video Decoder	Yes, should remain available. Should able to Support MPEG-1/2/4, H.263, H.264/AVC, UHD H.264/AVC, VC-1, AVS+, HEVC, JPEG, PNG, VP8, VP9
25	Audio Decoder	Should support AC3 (DD), MPEG
26	Certifications	ENERGY STAR 7.0, EMC, RoHS Compliant
27	On Site Warranty	5 Years On Site Warranty 24*7 NBD

## b) Access point

Qty :01no

SL	Specification	Description
1	WLAN Standards	802.11 a/b/g/n/ac Wave 2 or better
2	WLAN Standards	1x 2.4 GHz/5 GHz dual-band 1x 5 GHz single band 1x Bluetooth low energy (BLE)
3	Memory	512 MByte DDR3L512 Mbyte NAND Flash4 Mbyte SPI NOR Flash
4	SSIDs	8 per radio, 16 in total or higher
5	Antennas	2x internal dual-band antenna for Radio-1 2x internal 5 GHz antenna for Radio-2 1x internal 2.4 GHz antenna for BLE (for future use)
6	Antenna Peak Gain	3.7 dBi at 2.4 GHz, 6.7 dBi at 5 GHz or higher
7	Performance	2x2:2 MU-MIMO or higher
8	Maximum Throughput	300 Mbps (2.4 GHz) + 867 Mbps (5 GHz) or higher
9	Interfaces	1x RJ45 connector console serial port 1x RJ45 10/100/1000 Ethernet w/PoE
10	Power Over Ethernet	PoE 802.3af or higher
11	Warranty	5 Years OEM Warranty with parts and labour
12	Special Note	Offered access point should be compatible with our existing WLAN controller Sophos XG210 or higher model.

## 10) Network cable and accessoires

SI No	Description	Qty
1	Workstation / Equipment Cords (Unshielded Twisted Pair, Category 7 (20 Mtr Length) (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)	3
2	Workstation / Equipment Cords (Unshielded Twisted Pair, Category 7 (2 Mtr Length) (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)	3
3	Workstation / Equipment Cords (Unshielded Twisted Pair, Category 7 (1 Mtr Length) (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)	4
4	VGA to HDMI cable 10 meters	1
5	HDMI to HDMI cable 10 meters	1
6	DP to HDMI cable 10 meters	1
7	VGA to VGA cable 10 meters	1
8	USB 2.0 LRP Print Server Share a LAN Networking USB Printer Ethernet Adapter for multi-functional printer (Adapter should be able DHCP and Static IP address Support)	1
9	Dual Band USB WIFI 6 AC high gain dongle (300 Mbps or more 2.4 Ghz + 867 Mbps or more 5 Ghz 802.11ac, 802.11n, 802.11g, 802.11b with MU-MIMO) support with window 7/8/10 and mac or higher.	10

## **B. SERVICES**

### **Installation & commissioning**

<b>Sl. No.</b>	<b>Installation &amp; commissioning - Specifications</b>
1	Selected bidder should install & commission the systems (e.g., configuration of DNS/FTP/WEB server) as desired by ASTEC, Guwahati
2	System installation, commissioning is the responsibility of the selected bidder along with OEM.
3	The scope of the installation including the complete installation and commissioning of all the hardware and software items offered as part this tender. The scope includes the installation and configuration of the client licenses also. The scope also includes the supply and installation of the cabling. The scope shall also include the configuration of the backup policies
4	It is the responsibility of OEM /Selected bidder to resolve any performance related issues.
5	At the time of installation and commissioning of the configuration if it is found that some additional hardware accessories or software items are required to complete the configuration to meet the operational requirement of the configuration which were not included in the Selected bidder's original list of deliverables then Selected bidder is required to supply such items to ensure the completeness of the configuration <b>at no extra cost to ASTEC</b> . Selected bidder should ensure completeness of the list of deliverables in the offer to avoid such discovery during installation.
6	Selected bidder should resolve all issues related to compatibility of hardware, drivers and other system software with OS OEMs

### **Warranty & Technical support**

<b>Sl. No.</b>	<b>Warranty &amp; technical support - Specifications</b>
1	The warranty shall start from the date of successful completion of installation for a period of 5 years
2	Comprehensive on-site warranty (24 X 7, 4-hour resolution time) for both the supplied hardware for a period of five years. The warranty should also include supply and installation of updates and upgrades of the given firmware as and when ASTEC operational requirement.
3	<b>During entire warranty period selected bidder must be ensure to provide any technical support which includes reconfigurations and troubleshooting any system equipment (e.g., servers OS format and reinstallation / Any Web/DNS/FTP application or software installation or reconfiguration / backups /network device/UTM/switches/storage), performance optimizations, guidance on usage and software aspects, technical help in planning for augmentations, etc. as and when needed by ASTE Council. Technical support under warranty period shall be provided by the selected firm/OEM at free of Cost. During warranty period OEM/Selected bidder must be responsible that any service provided by them through a qualified and experienced technical person/person.</b>
4	Warranty shall not become void even if ASTEC buys any other supplemental hardware from a third party and installs it with/in these machines. However, the warranty of the OEM will not apply to such hardware items installed.
5	It is the responsibility of OEM /Selected bidder to resolve any performance-related issues during the entire warranty period. OEM/Selected bidder must be responsible for any firmware and software upgradation during the warranty period as and when needed.
6	After completion successful installation and commissioning the system, selected bidder must be providing a full documentation of entire installation process (step by step) mainly SAN configuration with RAID creation and its integration with OS.
7	If unresolved issues are pending, warranty duration would be extended till the satisfactory resolution of issues without any extra cost to ASTEC.

## C: OTHERS

### Compliance:

Sl. No.	Compliance - Specifications
1	All the hardware specifications mentioned in this tender document are the required minimum, however, higher or better specifications would be preferable.
2	The methodology of cabling and installation work to be adopted to ensure minimum damage to the existing structure of the building. Any damage to the existing flooring/ walls/paint, etc. shall be rectified by the selected bidder
3	The selected bidder shall also be responsible for deputing qualified personnel for installation, testing, commissioning and other services under his scope of work as per this specification. All required tools for completing the scope of work as per the specification is also the responsibility of the selected bidder.
4	All the hardware and software shall have Five year onsite comprehensive warranty covering all parts & labour from the date of acceptance of the systems by ASTEC. During the warranty period, the vendor will have to undertake comprehensive maintenance of the entire systems (hardware, hardware components, software, equipment and accessories supplied by the vendor under this NIQ) at the place of installation of the equipment.
5	The bidder should have service facility setup in Guwahati at least for <b>last 5 years</b> , supporting documents like trade license/municipality registration certificate should be enclosed with their bid.
6	The selected bidder shall furnish complete, well-fabricated and reliable operating and secure systems to ASTEC. Design and selection of component and software shall be consistent with the requirements of long-term trouble-free operation with highest degree of reliability and maintainability. All components shall be constructed to operate safely without undue heating, vibration, wear, corrosion, electromagnetic interference or similar problems and all software shall be proven, tested and reliable. The necessary compliance document and test reports shall be provided
7	All interconnecting cables required to connect the communication component shall be furnished. All cables shall be fully assembled connector pre-terminated and factory tested as part of overall system checkout. Cables shall be neatly & properly tied up and dressed using appropriate cable hangers and Velcro bands. All the cables, connectors, sockets, panels etc. shall be labeled for identification purpose
8	All the cabling should adhere to the International Standard
9	All component, accessories and cables supplied under this contract shall be in accordance with the latest applicable recommendations, regulations and standards
10	Cable (Cat 7) and cable accessories (7) Listed and verified
11	For parameters not covered under the above codes, internationally acceptable standards shall be accepted. The selected bidder shall furnish a complete list of all standards and codes under which his component is designed, manufactured and assembled along with the bids
12	Functionality/accessibility of each component of the system and the system as a whole should be demonstrated to the satisfaction of ASTEC.
13	Reliable over voltage and over current protection circuits shall be provided in the component power supply units. The component power supply units shall be self-protecting and also protect connected component's against interference, noise, voltage dips and surges & impulses that may be present in the mains power supply sources. Component shall be guaranteed for operation over the following AC power range to be made available by ASTEC.

## Technical Terms & Conditions

Sl. No.	Technical terms & conditions
1	The selected bidder should ensure compatibility of the components used in the solution. A letter of confirmation should be attached along with the technical compliance from all the OEMs (Original Equipment Manufacturer).
2	The selected bidder shall provide a detailed technical compliance statement for offered products and specifications. The compliance statement is to be prepared <b>in MS-EXCEL or any other compatible format</b> as per the tender sequence and shall use the same serial no for all the items and sub-items as in the tender to be submitted with signed hardcopy without any corrections. The compliance matrix shall also cover all the terms and conditions specified in the tender
3	The selected bidder should list detailed bill of materials for all the items and sub-items offered along with part numbers. Any item given as complied and not listed in the bill of material will be treated as not complied
4	The total solution document shall be provided by the Selected bidder along with the technical offer.
5	The selected bidder should bring out gaps in the tender document, if any, which might be required for completing the total solution and also quote for total solution, should inform atleast one week prior to opening bid. All concerned bidders shall go through the web site for modification for total solution if any.
6	Complete ownership of ensuring the solution in a working condition as per ASTEC requirements mentioned in the tender document lies with the selected bidder only. <b>Any components/ accessories like cables, etc. should be included in the quote and selected bidder should agree to supply the items missed/short shipped at no additional cost to ASTEC.</b>
7	The selected bidder must be at least tier-II partner of the OEMs and should also provide letter of authorization from the OEMs for this tender stating NIQ no. of ASTEC. The bidder should participate as a single party and no consortium is allowed.
8	The bidder should not change the OEMs once the tender is submitted.
9	Near obsolete and outdated technology-based products should not be quoted / offered as a part of the solution.
10	The selected bidder must take full responsibility for total supply, installation and integration and successful testing of all the quoted items.
11	The selected bidder must provide item-wise breakup prices, wherever applicable
12	The quoted make and models must be clearly specified for all the items/ sub-items
13	Full technical specifications and literature must be provided for all the quoted items including sub-items. All devices 1G/10G Copper/Ethernet ports, SPF+ ports and SPF ports should be compatible with each other (auto negotiation mode).
14	The Selected bidder must have the proven experience in installing and supporting similar solutions in the last three years. Also, should provide the user/site details with a documentary proof.
15	The selected bidder must have certified skilled, trained and experienced manpower with technical competence on all the quoted products. Name and qualification of skilled manpower to be enclosed.
16	Any required software/drivers to make the given items usable should be delivered along with media kit and documentation
17	All standard and optional items (if any) must be clearly indicated
18	The bidder should be an authorized partner of the OEMs involved in the quotation, for the last three years. The Selected bidder should have implemented the storage and networking elements from the same OEMs during this period.
19	The bidder should have sufficient experience in doing business with the OEM and should have adequate engineers certified by the OEMs in India.
20	All items quoted must be fully compatible with other selected bidders' product (For e.g. New servers and storage, access point are fully compatible with existing servers (HP and Lenovo) D-link L3 switches, cisco L3 switches and access points (used as a access point controller Sophos XG 210) and vice versa)
21	All necessary cables, connectors, adapters, accessories etc., should be supplied by the selected bidder as required for the successful integration and commissioning of the entire setup.
22	Installation, integration and support have to be performed/ provided at ASTEC Campus, Guwahati, Assam
23	Supplied items should work on 220V, 50 Hz, AC power supply

24	While carrying out the structured cabling, any extra cable/connectors used more than the quantities specified, payment would be made at actual. The cabling must be certified by Panduit, AVAYA, Lucent or AMP only.
25	Any defective/failed server hard disk or magnetic media (LTO) or any storage media shall be replaced by the selected bidder on free of cost without insisting on return of defective media. <b>The defective media will not be given to the selected bidder, considering security aspect.</b>
26	All power sockets/fixtures at the installation site are Indian type
27	All the selected bidders should provide solution document based on the tender document requirements and figures given.
28	The bidder shall quote for all the mandatory items and shall ensure that slab rates are provided wherever required. No further clarification will be entertained in this regard
29	The software licensing must be clearly and unambiguously stated and accordingly quoted separately with per unit license cost information
30	Complete technical information of the solution (hardware, software, network, etc.) must be provided for each item separately to ensure that the equipment offered is in conformity with the specifications
32	Incomplete and ambiguous tenders are liable to be rejected. Amendments and additions to tender after opening of bids will not be entertained.



**PRICE BID  
PRICE SCHEDULE FORM: A  
(ON THE LETTER HEAD OF THE BIDDER)**

**Name of the Bidder/Tenderer:**

**Tender No:**

1	2	3	4	5	6
Sl. No	Description of items to be worked	Qty	Basic/Unit price	Applicable taxes and duties	Total Price Including all Applicable Taxes and Transportation (Rs.)
1.	Entry Level Server	02			
2.	Mid-level Server	01			
3.	SAN Storage	01			
4.	Workstation	10			
5	Upgradation through buyback from existing Sophos XG 210 to Sophos XG 210 rev3 or higher 200 series model (1U) with latest revision (hardware + Full Guard Plus Subscription =Total protect Plus for 3 years)	01			
6.	Wildcard SSL for 5 years	01			
7	<b>Server Rack and accessories:</b>				
a	42 U Rack	01			
b	10Gbps SFP+ for two exiting D-Link switch	02			
c	10Gbps SFP+ (Copper) for two exiting D-Link switch	02			
d	8 (POE) port GbE copper Flexi Port module for Sophos XG 210 rev3. or higher model	01			
e	External Redundant Power Supply of Sophos XG UTM	01			
f	Upgradation of existing Lenovo server Hard drive and 2x 10GbE ML2 or PCIe adapter	01			
8	Intelligent Power Distribution Unites (IPDUs)	02			
9	Integrated USB all-in-one conferencing device for 45+ seater Room	01			
a	Smart TV cum Monitor Display unit for web conferencing	01			
b	Access point (must be support with Sophos XG210 or higher UTM)	01			
10	<b>Network cable and Accessories</b>				
d	Workstation / Equipment Cords (Unshielded Twisted Pair, Category 7 (20Mtr Length) (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)	03			
e	Workstation / Equipment Cords (Unshielded Twisted Pair, Category 7 (2Mtr Length) (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)	03			
f	Workstation / Equipment Cords (Unshielded Twisted Pair, Category 7 (1Mtr Length) (preferable make TYCO/AMP/SIMONE/PANDUIT, or equivalent make)	04			
g	VGA to HDMI cable 10 meters	01			
h	HDMI to HDMI cable 10 meters	01			
i	DP to HDMI cable 10 meters	01			
j	VGA to VGA cable 10 meters	01			
k	USB 2.0 LRP Print Server Share a LAN Networking USB Printer Ethernet Adapter for multi-functional printer	02			
l	Dual Band USB WIFI AC high gain dongle (300 Mbps or more 2.4 Ghz + 867 Mbps or more 5 Ghz 802.11ac, 802.11n, 802.11g, 802.11b with MU-MIMO) support with window 7/8/10 and mac or higher.	10			

**Note:**

- 1) Five years Onsite warranty will be provided by the selected bidder.
- 2) The above rates are inclusive of all applicable taxes, duties including transportation etc.
- 3) These a Turn-key basis work. Hence, the undersign has visited the site to be installed the aforesaid product/Items and after that above rates have been quoted.
- 4) Total Bid price should be mentioned in Indian currency.

**Signature of the owner/bidder**

*9*  
*17.08.2020*  
*KE*  
Director  
ASTE Council

No. ASTEC/ARSAC/1877/2018/PART-1/  
Copy to

Dated: 17/08/2020

- 1) Notice Board ASTE Council/AEDA
- 2) ASTEC website ([www.astec.assam.gov.in](http://www.astec.assam.gov.in))
- 3) To the Director DIPR, Govt. of Assam, Dispur, Guwahati-6
- 4) Head i/c, ARSAC.
- 5) Dy. F & AO
- 6) Dy. Admin. Officer i/c
- 7) Office Copy.

*17.08.2020*  
*KE*  
Director  
ASTE Council

*ok*