# **Online Bids**

(through E-Procurement Portal of CPPP)

are invited

for Campus Surveillance System: Supply, Installation, Testing, Commissioning and Maintenance at IIT (BHU) Varanasi

Tender No.: IIT(BHU)/IPCell/2024-25/CCTV/317

Tender date : 14.08.2024 Last Date of Submission: 05.09.2024 Tender opening : 06.09.2024



Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005 E-mail: office.surveillance@iitbhu.ac.in

# INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY) VARANASI – 221005

#### DEPARTMENT/SCHOOL/CENTRE: INSTITUTE PURCHASE CELL, IIT (BHU) VARANASI

#### **TENDER ENQUIRY DOCUMENTS**

#### (NOTICE INVITING TENDER)

IIT (BHU) Varanasi invites online tender from manufacturers (or their 'authorized' dealers that they have been authorized to quote in response to this NIT) of the following items are invited:

Sl. No.	Tender No. and Date	Specifications & Quantity of the item	Earnest Money Deposit to be submitted
1.	IIT(BHU)/IPCell/2024-	As per Annexure I	25 Lakhs
	25/CCTV/317 dated 14.08.2024		

Tender Documents may be downloaded from Central Public Procurement Portal <u>http://eprocure.gov.in/eprocure/app.</u> Tenderers can access tender documents on the CPP Portal. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <u>http://eprocure.gov.in/eprocure/app as</u> per the schedule given in the next page.

Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <u>http://eprocure.gov.in/eprocure/app</u>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

# No manual bids will be accepted. All quotations (both Technical and Financial should be submitted in the E- procurement portal).

The Tender should be addressed to Chairperson, Campus Surveillance System, Institute Purchase Cell, Indian Institute of Technology (Banaras Hindu University), Varanasi – 221005, U.P., and should be submitted online on or before the date and time of Bid closing date as mentioned in critical date sheet.

The Institute shall not be responsible for any delay in submitting online Bids. The Institute reserves the right to accept or reject any bid, cancel the Tender without assigning any reason thereof. No correspondence in this regard will be entertained.

Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

### INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY) VARANASI – 221005

#### DEPARTMENT/SCHOOL/CENTRE: INSTITUTE PURCHASE CELL, IIT (BHU) VARANASI

### SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF CCTV CAMPUS SURVEILLANCE SYSTEM AT IIT (BHU) VARANASI

#### CRITICAL DATA SHEET

Name of Organization	Indian Institute of Technology (Banaras Hindu University)				
Tender Type(Open/Limited/EOI/Auction/Single)	Open				
Type/Form of Contract (Work/Supply/ Auction Service/ Buy/ Empanelment/ Sell)	/SUPPLY				
Date of Issue/Publishing Original Tender	14.08.2024 (6.55 pm)				
Document Download Start Date	14.08.2024 (6.55 pm)				
Document Download End Date	05.09.2024 (4:00 PM)				
Pre Bid Meeting Date* *Queries, if any, to be discussed, MUST be emailed to office.surveillance@iitbhu.ac.in, before the date of Pro Bid meeting for consideration.	21.08.2024, Time : 11:00 AM Committee Room, Ground Floor, Admin Building, IIT(BHU).				
Corrigendum, if any	23.08.2024				
Last Date and Time for Uploading of Bids	05.09.2024 (4:30 PM)				
Date and Time of Opening of Technical Bids	06.09.2024 (5:00 PM)				
Tender Processing Fee (including GST as applicable )	Rs. 23,600/- (For Tender Processing Fee) & Rs. 25 lakhs (For EMD) (To be paid through RTGS/NEFT) as per the following details:				
EMD	Name of Account - Registrar, IIT(BHU) Name of the Bank - State Bank of India Name of Branch - IT, BHU, Varanasi Account No 32778803937 IFSC Code - SBIN0011445 The proof of payment must be enclosed with Technical Bid. Both the transactions should be done separately.				
No. of Covers (1/2/3/4)	02				
Bid Validity days	365 days (From the date of opening of tender)				
Address for Communication	Chairperson, Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005				
Contact No. & E-mail Address	office.surveillance@iitbhu.ac.in				

# INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY) VARANASI – 221005

#### DEPARTMENT/SCHOOL/CENTRE: INSTITUTE PURCHASE CELL, IIT (BHU) VARANASI SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF CCTV CAMPUS SURVEILLANCE SYSTEM AT IIT (BHU) VARANASI

### **INVITATION FOR BIDS**

1. Online bids are invited from eligible bidders for the following:

SI. No.	Tender no.	Specifications & quantity of the item	Earnest (EMD)	Money	Deposit
1.	IIT(BHU)/IPCell/2024- 25/CCTV/317 dated 14.08.2024	As per Annexure I	25 Lakhs		

2. Interested eligible Bidders may obtain further information from IIT (BHU) website: <u>https://www.iitbhu.ac.in/tenders</u> or from Central Public Procurement Portal (CPPP) <u>https://eprocure.gov.in/eprocure/app</u>.

3. Intending bidders are advised to visit IIT (BHU) website <u>https://www.iitbhu.ac.in/tenders</u> and CPPP website <u>https://eprocure.gov.in/eprocure/app</u> regularly till closing date of BID submission of tender for any corrigendum / addendum/ amendment.

4. Earnest Money Deposit is to be deposited electronically by RTGS/NEFT in the account of Registrar, IIT (BHU) in the Bank details mentioned above. Bidders are required to submit the scan copy of payment receipt details of Tender fees and EMD payment at the time of Bid Preparation.

- 5. This Tender Document contains the following:
  - A. Instructions for Online Bid Submission
  - **B.** Instruction to Bidders
  - C. General conditions of contract (GCC)
  - **D.** Special Condition of Contracts
  - E. Check-list for Bid/Tender submission
  - F. Declaration Certificate
  - G. Technical specifications for the complete project (Annexure I)
  - H. Compliance Sheet

### **SECTION 1: INSTRUCTION FOR ONLINE BID SUBMISSION**

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal (<u>http://eprocure.gov.in/eprocure/app</u>). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <u>http://eprocure.gov.in/eprocure/app</u>.

#### 1. Registration

- 1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<u>http://eprocure.gov.in/eprocure/app)</u> by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
- 2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.

#### 2. Searching for Tender Documents

- 1. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

#### 3. Preparation of Bids

- 1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission

process.

#### 4. Submission of Bids

- 1. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3. Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee / EMD separately on-line through RTGS.
- 4. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

### 5. Assistance to Bidders

- 1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

#### 6. General Instructions to the Bidders

- 1. The tenders will be received online through portal <u>http://eprocure.gov.in/eprocure/app</u>. In the Technical Bids, the bidders are required to upload all the documents in **.pdf format**.
- 2. Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/etoken in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site https://eprocure.gov.in/eprocure/app under the link "Information about DSC".
- 3. Tenderer are advised to follow the instructions provided in the 'Instructions to the Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at <a href="https://eprocure.gov.in/eprocure/app.">https://eprocure.gov.in/eprocure/app.</a>

### **SECTION 2: INSTRUCTIONS TO BIDDERS**

#### A. Introduction

#### 1. Scope of Work

Campus Surveillance System: Supply, Installation, Testing, Commissioning and Maintenance at IIT (BHU) Varanasi

#### 2. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

#### **B.** The Bidding Documents

#### **3. Tender Processing Fees**

The Tender Processing fees (For Indian Bidders : Rs. 23,600.00/-) should be submitted ONLINE as per the details mentioned above. Further, the proof of payment must be uploaded with Technical Bid. The exemption will be applicable as per Govt. of India norms.

#### 4. Content of Bidding Documents

The goods required, bidding procedures and contract terms are prescribed in the bidding documents. In addition to Invitation of Bids, the bidding documents include:

- (a) Instructions for Online Bid Submission
- (b) Instruction to Bidders (ITB);
- (c) General Conditions of Contract (GCC);
- (d) Special Conditions of Contract (SCC)
- (d) Schedule of requirements;
- (e) Tender form (technical bid).
- (f) Tender form (financial bid)

The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

#### 5. Amendment of Bidding Documents

At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.

All prospective bidders who have received the bidding documents will be notified of the amendment in writing, which will be binding on them.

In order to allow prospective bidders reasonable time within which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

#### **C. Preparation of Bids**

#### 6. Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in English language.

#### 7. Documents Comprising the Bid

**Techno commercial un-priced bid and priced Bids:** The bids are to be submitted in two parts i.e. Techno commercial un-priced bid and priced Bids.

- (a) Techno commercial un-priced bid along with Earnest Money Deposit as shown in invitation to bids shall be submitted through CPP Portal. If the proof of payment of EMD/ Bid Security Declaration Form as per Annexure-VII is not received along with the technical bid, such bid will not be considered. The samples (if required) of all the items shown in the schedule of requirements of each tender should also accompany the techno commercial un-priced bid in a separate sealed envelope.
- (b) Priced bid.

**Techno commercial un-priced bid:** The Techno commercial un-priced bid prepared by the bidder shall be provided in the following Model Response format:

#### **Model Response format**

- (a) Standing of each Bidder Manufacturer/Dealer and past experience in supply of the material (certificates to be enclosed), proof of manufacturing Unit/Dealership alongwith all the documents required for proving the credentials regarding the fulfillment of essential pre-bid criteria.
- (b) List of other IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs for which the bidder has supplied or supplying material or having the similar type of contracts and a certificate regarding the satisfactory performance of the contract (In the Annexure III format).
- (c) Copy of the audited balance sheet of the Bidder for the previous financial year indicating the turnover in supply of the relevant materials/service.
- (d) Details of Permanent Account Number and latest income tax clearance certificate.
- (e) Details of GST No. along with a copy of certificate to be attached.
- (f) Submission of samples if required, for all items indicated in the schedule of requirements. The make of items proposed to be supplied should be indicated in the format of the schedule of requirements and submitted along with the techno commercial un-priced bid without indicating the pricing components.
- (g) Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the schedule of requirements are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

#### **Price Bid**

The price bid shall comprise the techno commercial bid along with the price component indicating the Unit prices for each and every item indicated in the schedule of requirements (Annexure I).

- (h) The prices quoted must be net per unit as shown in the Schedule and must include all charges for delivery at the designated stores i.e. FOR, IIT (BHU), Varanasi and should be mentioned clearly.
- (i) The rate must be stated for each item separately both in words and figures. If there is a discrepancy between the price quoted in word and figures the higher price quoted will be treated as final.

- (j) Quoted prices should be firm and inclusive of all taxes/duties, freight and forwarding charges, handling charges, loading and unloading charges, and insurance charges etc. However, the prices must be reflected clearly in BoQ format by mentioning basic rate, GST, Freight charges, Any other Taxes/Duties/Levies and exemptions thereon as applicable to IITs.
- (k) Further, if required the Institute will make direct payment to the Custom Department against receipt of Challan from the supplier.
- (I) The prices once accepted by the Institute shall remain valid till the successful execution of the order and till supplies are fully effected and accepted for 365 days from the date of acceptance of tender whichever is later. The Institute shall not entertain any increase in the rates during the period. However, in the event there is a reduction or increase in Government levy/duties/taxes during the period of execution of the order, the rates shall be suitably adjusted with effect from the date notifying the said reduction or increase in the Government levy/taxes/duty, if any.

#### 8. Bid Prices

The Bidder shall indicate on the Schedule of requirements (BoQ), the unit prices of the goods it proposes to supply under the Contract and enclose it with the priced bid.

Prices indicated on the Price Schedule shall be entered separately in the following manner:

- (i) The prices quoted must be net per unit as shown in the schedule of requirements and must include all charges for delivery at the designated stores.
- (ii) Any Indian duties, GST and other taxes which will be payable on the goods, if this Contract is awarded;

Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account.

#### 9. Bid Currencies

Prices shall be quoted in Indian Rupees only.

#### 10. Period of Validity of Bids

Bids shall remain valid for **365** days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. A Bidder may refuse the request without forfeiting its EMD, if any. A Bidder granting the request will not be required nor permitted to modify the bid.

Bid evaluation will be based on the bid prices without taking into consideration the above modifications.

#### **D.** Submission of Bids

**11.** The tender has to be submitted ONLINE before the due date. The offers received after the due date and time will not be considered. **No manual bids will be considered**.

#### 12. Deadline for Submission of Bids

Bids must be received by the Purchaser ONLINE not later than the time and date specified in the Invitation for Bids.

The Purchaser may, at his discretion, extend this deadline for submission of bids by amending the bid documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

#### 13. Late/Delayed Bids

The offers received after the due date and time will not be considered.

#### 14. Modifications and Withdrawal of Bids

The Bidder may modify or withdraw its bid after the ONLINE bid's submission, as per the provision of CPP Portal.

No bid may be modified subsequent to the deadline for submission of bids. No documents will be accepted in support of essential pre-bid criteria after the last date of submission of bids.

No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity specified by the Bidder on the bid form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its EMD, if any.

#### E. Bid Opening and Evaluation of Bids

#### 15. Opening of Techno commercial un-priced Bids

The purchaser will open all techno commercial un-priced bids in the first instance.

#### **16.** Clarification of Bids

During evaluation of the bids, the purchaser may, at its discretion, ask the Bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in price or substance of the bid shall be sought, offered or permitted.

No Bidder shall contact the purchaser on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Institute it should be done in writing.

Any effort by a Bidder to influence the purchaser in its decisions on bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.

#### 17. Evaluation of Techno commercial un-priced Bid

Following Evaluation process shall be incorporated:

- a) Evaluation of Pre-qualification criteria as mentioned in Section 4 on the basis of documentary support provided by the bidder.
- b) Evaluation of Technical Requirements as mentioned in Schedule of Requirement on the basis of documentary support provided by the bidder.
- c) Demonstration of Proof of Concept (PoC) as per the required criteria, if the bidder fails to demonstrate their bid shall not be considered for further processing.
- d) Evaluation of other Terms and conditions mentioned in this tender on the basis of documentary evidence.

All the bidders are required to make sure that they have uploaded all the documents as mentioned above with their bid before final submission of bid.

Prior to the detailed technical evaluation, the purchaser will determine the substantial responsiveness of each bid. A substantially responsive bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviations and meets all the essential pre-bid criteria. If any bidder does not meet the essential pre-bid criteria as laid down in the Instruction to Bidders, then his bid will be summarily rejected. No documents will be accepted in support of essential pre-bid criteria after the last date of submission of bids.

The purchaser will reject a bid determined as not substantially responsive.

Those whose technical specifications do not reach the threshold level of acceptability shall be rejected as technically unsuitable. The price bids of the bidders who finally emerge as technically

acceptable shall be opened, evaluated and the contract awarded to the lowest evaluated bidder.

The bidders short-listed by the purchaser based on meeting the essential pre-bid criteria and detailed evaluation regarding satisfying the technical criteria laid down in this tender document may be called for detailed discussions with a team selected for the purpose, at a specified date, time and venue, if needed.

#### **18.** Opening of Priced Bids

The Purchaser will open the Priced Bids of only those bidders who meet the essential pre-bid criteria and whose techno commercial un-priced bids have been found to be substantially responsive.

The priced Bids of the technically qualified bidders shall be opened by the tender committee.

#### **19.** Evaluation and Comparison of priced Bids

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between words and figures, whichever is the higher of the two shall be taken as bid price. If the Bidder does not accept the correction of errors, its bid will be rejected

Bidders shall state their bid price for the payment schedule outlined in the Clause 14 of General Conditions of Contract. Bids will be evaluated on the basis of this base price. Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in bid price they wish to offer for such alternative payment schedule. The purchaser may consider the alternative payment schedule offered by the selected Bidder but it may not be binding on the purchaser.

The purchaser, at its option may ask some more bidders to match the rates of the lowest bidder for creating parallel suppliers.

The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: **Indian Rupees.** 

#### 20. Purchasers right to accept any bid and to reject any bid or all bids

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.

#### 21. Award Criteria

- i. IIT (BHU) shall award the contract to the technically qualified eligible BIDDER whose bid has been determined as the lowest evaluated commercial bid.
- ii. In case of abnormally high and abnormally low quoted price, the bidder will be rejected out rightly.
- iii. Also as per instruction mentioned in Annexure I

#### 22. Notification of Award

Prior to the expiration of the period validity, the purchaser will notify the successful Bidder in writing by letter or by fax, to be confirmed in writing by speed post or hand delivered letter, that its bid has been accepted.

#### 23. Factors Affecting the Award of Supply

- The bidder should have its own Contract support facilities. The support facilities should be fully owned and managed by the bidder.
- Conformity with the Request for Bid/Tender required and conditions.
- The assessment is based on the response to the Model Response Outline.
- The assessment of the capability of the bidder to meet the terms and conditions.

- The bidders must have executed similar orders, for which the bidder is quoting, as indicated in clause 1 for IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs.
- The cost and the discount offered, if any.

#### 24. Fall clause

The price quoted by the supplier should not be higher than the maximum retail price, if any, for the stores and the same shall not be higher than the price usually charged by the supplier for stores of the same nature, class or description to any other purchaser.

The price charged for the stores supplied under the contract by the supplier shall in no event exceed the lowest price at which the supplier sells the stores of identical description to any other person during the period till performance of all supply orders placed during the currency of the contract is completed. If at any time during the period the supplier reduces the sale price of such stores or sells such stores to any other person including his dealers at a price lower than the price chargeable under the contract, he shall forthwith notify such reduction or sale to the purchaser and the price payable under the contract for these items of stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

If it is discovered that the supplier has contravened the above conditions, then without prejudice to any other action which might be taken against him, it shall be lawful for the purchaser to (a) revise the price at any stage so as to bring it in conformity with sub-clause(i) above, or (b) to terminate the contract and purchase the items of stores at the risk and cost of the supplier and in that event the provisions of Clause 28 of General Conditions of Contract shall, as far as possible, be applicable or recover the loss.

#### **SECTION 3 : GENERAL CONDITION OF CONTRACTS**

#### 1. Definitions

In this Contract, the following terms shall be interpreted as indicated:

- (a) "The order" means the agreement entered into between the Purchaser and the Supplier including all the attachments and appendices and all documents incorporated as per notification of award.
- (b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
- (c) "The Goods" means all the items, which the Supplier is required to supply to the Purchaser under the Contract;
- (d) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services training and other obligations of the Supplier covered under the Contract;
- (e) "GCC" means the General Conditions of Contract contained in this section.
- (f) "The Purchaser" means the organization purchasing the Goods i.e. IIT (BHU), VARANASI.
- (g) "The Purchaser's country" is India.
- (h) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
- (i) "Day" means calendar day.

#### 2. Application

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

#### 3. Standards

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned Institution.

#### 4. Use of Contract Documents and Information

The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information except for purposes of performing the Contract.

Any document, other than the Contract itself, shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

#### 5. Patent Rights

The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

#### 6. Submission of the bids

All bids complete in all respects must be submitted online on or before the Bid Closing date and time as mentioned on Critical Data Sheet. Tenders received without earnest money etc. shall be rejected.

Tender documents are available on IIT (BHU) website: <u>https://iitbhu.ac.in/tenders</u> or from Central Public Procurement Portal (CPPP) <u>https://eprocure.gov.in/eprocure/app</u>.

Interested bidders may submit their bid through Central Public Procurement Portal (CPPP) <u>https://eprocure.gov.in/eprocure/app</u>.

#### 7. Inspections and Tests

The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser.

The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data shall be furnished to the inspectors at no charge to the Purchaser.

Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

Nothing in GCC Clause 7 shall in any way release the Supplier from any warranty or other obligations under this Contract.

#### 8. Consequences of rejection

If in the event the stores are rejected by the purchaser at the destination and the supplier fails to make satisfactory supplies within the stipulated period of delivery, the purchaser will be at liberty to:

- (a) Allow the supplier to resubmit the stores in replacement of those rejected, within a specified time without any extra cost to the purchaser or
- (b) Reject the material, which shall be final and binding on the contractor.
- (c) Procure the rejected materials of comparable quality from the open market/Govt. stores and the supplier shall be liable to pay the difference in price over the RC prices or get the amount adjusted from the outstanding bills of the supplier or EMD, if any.

#### 9. Packing

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, in any subsequent instructions ordered by the Purchaser.

#### **10. Delivery and Documents**

The Supplier shall make **delivery and installation** of the Goods within **5 months** from the placement of purchase order in pursuance of the notification of award. However, the supplier shall also arrange to execute all orders on priority basis which would be placed to meet any emergent requirements.

In case the purchaser decides to conclude parallel rate contracts, then the requirements would be split on different firms on an equitable basis as per the discretion of the purchaser.

The delivery of Stores shall be affected at the premises of the Institute free of all delivery charges and within the stipulated time and as may be elucidated in the confirmed order, accompanied by a delivery challan. No extension of time for delivery of Stores shall normally be accorded.

The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- 1. 3 Copies of the Supplier invoice showing contract number, goods' description, quantity unit price, total amount;
- 2. Installation Certificate
- 3. Insurance Certificate if applicable;
- 4. Manufacturer's/Supplier's warranty certificate;
- 5. Inspection Certificate issued by the nominated inspection agency, if any
- 6. Supplier's factory inspection report; and
- 7. Certificate of Origin (if possible by the beneficiary);
- 8. The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

**Time and date of delivery** – **the essence of the contract:** The time for and the date of delivery of the stores stipulated shall be deemed to be of the essence of the contract and delivery must be completed not later than the date(s) specified.

#### **11. Insurance**

The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. The insurance shall be obtained by the suppliers of the value of the goods on "all risks" basis.

#### **12. Transportation**

Where the Supplier is required under the Contract to transport the Goods within India defined as Project site, transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the contract Price.

#### 13. Warranty

The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in India.

This warranty shall remain valid for at least **60 months** (or as specified) after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, unless specified otherwise. The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall with all reasonable speed, repair or replace the defective Goods or parts thereof, without any extra cost to the Purchaser. If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

#### 14. Payment

The payment shall be made 100% payment against Supply, Installation and Commissioning and submission of satisfactory PBG.

The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the contract.

#### 15. Prices

Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in his bid. The bidder must mention the applicable taxes/duty and exemptions thereon, if any, as per the Government of India norms. The Institute will provide requisite certificate, if any, required by the bidder as per the applicable Govt. of India norms.

#### 16. Change Orders

The Purchaser may at any time, by written order given to the Supplier, make changes within the general scope of the Contract in any one or more of the following:

- (a) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) The method of shipping or packing;
- (c) The place of delivery; and/or
- (d) The services to be provided by the Supplier.

If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

#### **17. Contract Amendments**

Subject to GCC Clause 16, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

#### 18. Assignment

The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

#### **19. Subcontracts**

The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

#### 20. Delays in the Supplier's Performance

Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser as per GCC clause 10.

If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

Except as provided under GCC Clause 23, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to GCC Clause 21, unless an extension of time is agreed upon pursuant to GCC Clause 20.2 without the application of liquidated damages.

#### 21. Penalty

Subject to GCC Clause 23, if the Supplier fails to deliver and install any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 1% per week and the maximum deduction is 10% of the contract price of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 22.

#### **22. Termination for Default**

The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the purchase order, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 20; or
- (b) If the Supplier fails to perform any other obligation(s) under the Contract.
- (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

'For the purpose of this Clause:

"Corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution etc. as per GOI norms.

"Fraudulent practice: a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;" etc. as per GOI norms.

In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 22.1, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess

costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

#### 23. Force Majeure

Notwithstanding the provisions of GCC Clauses 20 & 21, the Supplier shall not be liable for imposition of liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

#### 24. Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without Compensation to the Supplier provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

#### **25. Termination for Convenience**

The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices.

#### **26. Resolution of Disputes**

The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms as specified below. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and national or international arbitration.

In case of Dispute or difference arising between the Purchaser and a supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996 as amended from time to time.

#### **27. Governing Language**

The contract shall be written in English language. Subject to GCC Clause 28, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

#### 28. Applicable Law

The contract shall be governed by the Law of Contract for the time being in force.

Irrespective of the place of delivery, the place of performance or place of payment under the contract,

the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued.

Jurisdiction of Courts: The courts of the place from where the acceptance of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of this contract.

One month notice will be given by either party for termination of Contract during the tenure of Contract for breach of Clause or otherwise.

#### 29. Taxes and Duties

Suppliers shall be entirely responsible for all taxes, duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser.

Further, if required the Institute will make direct payment to the Custom Department against receipt of Challan from the supplier.

#### **30. Performance Security:**

- (i) Successful bidder have to furnish 5% of the order value as a performance security in the shape of Fixed Deposit Receipt / Bank Guarantee in favour of the Registrar, Indian Institute of Technology (BHU) valid for a period of 60 days beyond the end of all warranty period / obligations (i.e. must valid for 62 months). Fixed Deposit Receipt / Bank Guarantee should be issued from a schedule bank in India.
- (ii) Earnest Money Deposit, if any, will be refunded to the successful bidder on receipt and verification of Performance Security.

#### **31. Supplier Integrity**

The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

#### **The Institute Reserves The Right To:**

- 1. Reject the quotation in absence of not furnishing the documentary evidence in respect of Trade Tax Registration (G.S.T), Income Tax and Trade Tax clearance certificates together with the performance of supplies in various branches/institutions.
- 2. Quantity Variation: If required, as per Govt. of India rules/guidelines.
- 3. Reject the quotation in the event of non-furnishing the authentic documentary evidence in respect of Testing reports / Performance report of the concerned Govt. Organization / Institutions about the products being manufactured and marketed. The performance test of the product can be conducted at Institute level also for which charge will have to be borne by the suppliers.
- 4. Reject the supplies already made, if not found up to the mark. Thorough checking may be adopted to test the correctness of the supply. In such an event further action may call to conform or discard the supply.
- 5. To reject any addition/alteration in respect of local dealerships intimated by the Principals after consideration of the case by the committee appointed by the Institute for the purpose.
- 6. Cancel this Tender at any point of time without assigning any reason thereof.
- 7. The Institute also reserves the right to reject the bid of any participated bidder
- 8. The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:
  - (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the purchase order, or within any extension thereof granted by the Purchaser.
  - (b) If the Supplier fails to perform any other obligation(s) under the Contract.
  - (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- 9. To reject any or all the offers without assigning any reasons thereof.
- 10. All disputes are subject to "Varanasi Jurisdiction" only.
- **11.** The decisions of the Institute in all respects shall be final and binding on all.
- 12. The Institute reserves the right to ask the successful bidder to produce all the original documents submitted along with the bids for verification at any point of time. During the verification of the document, if it is found that the bidder has concealed/falsified/fabricated any information, the bid and/or purchase order will be cancelled and EMD, if any and/or performance security will be forfeited and action including blacklisting will be taken against the bidder as per norms of the Institute.
- 13. Please ensure that your offer is complete in all respect as no further clarifications shall be sought from you and reaches us within the last date mentioned above. The Institute shall not be responsible for any delay etc.

Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

NOTE: 1- While arranging the Tender Documents, check list should be placed on TOP.

# **SECTION 4 : SPECIAL CONDITIONS OF CONTRACT**

(to be defined by the Purchaser as per the requirement)

#### **1.** Essential Pre Bid Criteria (Mandatory requirements from the bidders)

# A bid will be disqualified if any of the criteria provided in I-XIII is not fulfilled. Bidders are required to upload the supporting documents for each of the following points under cover 1.

	ired to upload the supporting documents for each of the	Supporting Documents/ Required
51. No.	Eligibility Requirement	Supporting Documents/ Kequirea
1	The bidder should be a company registered under the	Conv. of Cartificate of Incornoration /
1	Companies Act, 1956/2013 or a partnership firm	
	registered under Indian Partnership Act 1932 or Limited	0
	Liability Partnership Act 2008 with registered office in	
	India and in operation for at least 10 years as on	
	31.03.2024	
2	The bidder should be a single legal entity/ individual	Undertaking signed by authorized signatory
		must be provided
3	The bidder must have executed One similar Order of Rs.	1
-	8 Crores or Two similar orders of Rs. 5 Crores of total	
	project value of CCTV Surveillance, in last five years in	
	one of any IITs/IISc/IIM/IISER/NIT/IIIT/Govt.	-
	Autonomous Bodies/Central or State Govt. University/	
	Govt. Research Organizations/Government	
	Offices/PSUs directly with minimum 100 outdoor	
	CCTV cameras setup. The order(s) must be directly in	
	favor of the bidder only.	
	The bidder must have a valid manufacturer authorization	Copy of Certificate
	certificate for this specific Tender by clearly mentioning	
	the Tender Ref. No. and Name of Tender issued from	
	OEMs of CCTV, Switches, UPS etc	
	The Bidder should have an average annual turnover of	Audited and Certified Balance Sheet and
	Rs. 25 Crore or more during the last 3 financial years	
		along with CA certificate
6	Bidder must have all below certifications	Copies of the valid certificates from
	a) ISO 9001:2008/ ISO 9001:2015 for Quality	authorized agencies
	Management System or latest	-
	b) ISO 20000:2011 for IT Service Management or latest	
	c) ISO 27001:2013 for Information Security	
	Management System or latest	
	d) CMM Level 3 or more certified company	
7	Bidders must have positive net worth and should be	Audited and Certified Balance Sheet and
	profit making in each of the last 3 financial years.	Profit/Loss Account should be enclosed
		along with CA certificate clearly specifying
		the net worth of the firm
8	A notarized affidavit on a Non-Judicial stamp of Rs 100	Notarized affidavit
	by the bidder that it has never been black-listed by any	
	IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous	
	Bodies/Central or State Govt. University/ Govt.	
	Research Organizations/Government Offices/PSUs	
9	The bidder should be registered with the GST	
	Department and should carry a valid PAN in the name of	
	the Company. A copy of Income tax clearance	

	certificate, proof of manufacturing unit/ dealership letter/	
	general order suppliers, PAN card, and copy of GST	
	registration certificate	
10	Certificate as per Annexure-V, VI, VII and VIII on the	Certificates
	letterhead of the company must be uploaded.	
11	Adherence to all specifications is compulsory	Certificates
12	The Bidder must agree to give presentation and	Undertaking to be submitted in Annexure
	demonstrate the Proof of Concept as part of Technical	VIII format
	Evaluation for their quoted make and models including	
	compatibility with the existing network infrastructure of	
	the institute. To evaluate the offered solution/products,	
	POC will be conducted by a technical committee. POC	
	date(s) will be intimated separately to prospective	
	bidders	

# NOTE: THE BID OF THOSE BIDDERS WHO FAILS TO COMPLY THE ABOVE ESSENTIAL CRITERIA WILL NOT BE CONSIDERED FOR TECHNICAL EVALUATION.

#### 2. Documents Comprising the Bid

The tender/Bid shall be submitted online in two parts, viz., Technical Bid and Commercial Bid.

#### I. Technical Bid

- The following documents are to be scanned and uploaded as part of the Technical Bid as per the tender document:
- (a) Scanned copy of Tender Forms (Techno Commercial Un-Priced Bid), Declaration, and Tender Acceptance Letter;
- (b) Scanned copy of proof for submission of Tender Document Fee/ Earnest Money Deposit/ Declaration Form as per Annexure-VII/Exemption Certificate, if any etc.;
- (c) Scanned copy of written confirmation authorizing the signatory of the Bid to commit the Bidder;
- (d) Scanned copy of quoted product brochure
- (e) Scanned copy of completely filled Annexure III with supporting documents
- (f) Scanned copy of Technical Bid and essential Pre-bid Details, if any.
- i. Scanned copy of documentary evidence establishing the Bidder's qualifications to perform the contract if its bid is accepted and the Bidder's eligibility to bid;
- ii. Scanned copy of documentary evidence, that the Goods and Related Services to be supplied by the Bidder are of eligible origin and conform to the Bidding Documents, and
- (g) Scanned copy of Checklist, compliance of Essential pre-bid criteria and Technical Compliance Sheet (Annexure II) and any other document required as per the tender;
- (h) Certificate as per Annexure V, VI, VII and VIII.

#### **II.** Commercial Bid

The commercial bid comprises of :

- (i) Scanned copy of Tender Form (Price Bid)
- (ii) Price bid in the form of **.xls format** and to be uploaded in .xls & signed copy to be uploaded in **.pdf format**.

The Price bid format is provided as .xls format along with this Tender Document at <u>http://eprocure.gov.in/eprocure/app</u>. Bidders are advised to download this .xls format and quote their offer/rates in the prescribed column.

In addition to the above requirements, bids submitted by a Joint Venture shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement, there to.

The Bidder shall furnish in the Tender Forms information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

#### **3. Installation & Demonstration**

The supplier is required to complete the installation and demonstration of the equipment within **two** weeks of the arrival of materials at the IIT (BHU) site of installation, otherwise the penalty clause will be the same as per the supply of materials.

In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. IIT (BHU) will not be liable to any type of losses in any form.

#### 4. Application Specialist

The Tenderer should mention in the Techno-Commercial bid the availability and names of Application Specialist and Service Engineers in the nearest regional office.

#### 5. Spares

The Manufacturer/Supplier is required to provide state availability of spares for ten years, if required.

#### 6. Training of Personnel

The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.

#### 7. User List

The bidder must provide the list of users where they have deployed similar nature of equipment during 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2024 years in prescribed format of Annexure III.

#### 8. Manuals/Documents

1 set of hard copy and 1 set of soft copy in English (preferred as following).

- i. Operating manual
- ii. Servicing & Maintenance manual
- iii. Spare parts list with source of supply and prices
- iv. Pre-installation requirements.

#### 9. Services

Bidders must submit Factory Acceptance Test procedures supported with relevant printed literature and certificates.

- **10.** The Tender document should also indicate what kind of service/maintenance is required for the system. Whether this service has to be carried out by a company engineer or it can be carried by trained service personnel within India. The frequency of visit and the charges should be mentioned.
- **11.** The Tender should be enclosed with proper certifications like **Authorization Certificate** and **Proprietary Certificate** (in case of Proprietary items).
- 12. Pre-installation site preparation/inspection requirements to be indicated and specified along with the bid.
- **13.** Bid should include FOR, IIT(BHU), Varanasi prices. The Institute will provide requisite certificate, if any, required by the bidder as per the applicable Govt. of India norms.
- 14. The Bidder to provide compliance statements with respect to each technical specification in the tender document duly supported by the manufacturer's literature. Any other claim will not be accepted and may lead to rejection of the bid.

- 15. Printed literature in support of compliance to the prescribed specifications is to be submitted.
- **16.** Compliance report needs to be submitted as a part of the technical bid.
- 17. The Institute will provide Custom Duty Exemption Certificate as and when required.
- 18. Bidders should confirm their acceptance as per OM No. F.7/10/2021-PPD(1) Ministry of Finance, Govt of India dated 23.02.2023 on the subject Restrictions under Rule 144(xi) of the General Financial Rules (GFRs), 2017.
  - I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. *Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.*
  - II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
  - III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of this Order means:
    - a) An entity incorporated, established or registered in such a country; or
    - b) A subsidiary of an entity incorporated, established or registered in such a country; or
    - c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
    - d) An entity whose beneficial owner is situated in such a country; or
    - e) An Indian (or other) agent of such an entity; or
    - f) A natural person who is a citizen of such a country; or
    - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
  - IV. The beneficial owner for the purpose of (iii) above will be as under:
    - 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

- a) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
- b) "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. [To be inserted in tenders for Works contracts, including Turnkey contracts] The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.
- VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.
- VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution

# The bidder is required to submit a certificate in this regard in Annexure VI. If the certificate submitted by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.

- 19. If the bidder is a Micro or Small Enterprise/Start-up, they shall be exempted from the requirements of submission of "Tender Processing fees", "EMD", "Bidder Turnover" criteria subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Tender Processing fees/EMD/ Turnover, the presently valid supporting documents, as applicable to prove his eligibility for exemption, must be submitted for evaluation. Since this tender is related to Campus Surveillance & Security which is a Critical Security Operations where only experienced bidders are required. Therefore, the Committee resolved that the criteria of Prior Experience shall not be relaxed for MSEs/Startups in light of OM No. No .F .20 12 fi20 1 4-PPD(Pt. ) dated 16.09.2016 of Public Procurement Division, Ministry of Finance Relaxation of Norms for Startups Medium Enterprises in Public Procurement regarding Prior Experience Prior Turnover criteria.
- **20.** It is mandatory for bidders to quote items having local content minimum 20%. Refer revised Public Procurement (Preference to Make in India), Order 2017, No. P-45021/2/2017-PP (B.E-II) Part(4) Vol II dated 19.07.2024 issued by DPIIT, Ministry of Commerce and Industry, Govt. of India. (Submit duly filled Annexure VII for the same). The Annexure VII once submitted in the Technical Bid will be final. Submission of Revised Annexure VII will NOT be accepted. Bidders offering Imported products will fall under the category of Non\_Local Suppliers. They cannot claim themselves as Class-I or Class –II Local Suppliers by claiming the services such as Transportation, Insurance, Installation, Commissioning, Training and After Sale Service Support like AMC/ CMC etc. as Local Value Addition.
- **21.** The bidders are required to make sure that the offered products are in compliance with OM No. No. IV-24011/22/2020-Prov-I/270 dated 26.04.2024 of Ministry of Home Affairs, Govt of India forwarding thereby MeitY's communications regarding CCTVs. This includes the followings:
  - Gazette Notification dated 06 March, 2024 on the amendments to Public Procurement Order (PPO)-2017 for CCTV/ Video Surveillance Systems for Security, Ministry of Electronics and Information Technology (IPHW DIVISION), THE GAZETTE OF INDIA : EXTRAORDINARY [PART II—SEC. 3(ii)]
  - (ii) Gazette Amendment notification dated 09 April, 2024 to the Electronics and information Technology Goods (Requirement of Compulsory Registration) Order, 2021, Ministry of Electronics and Information Technology (IPHW DIVISION), THE GAZETTE OF INDIA : EXTRAORDINARY [PART II—SEC. 3(ii)]
  - (iii) OM no. W-43/11/2021-1PHW dated 11 March, 2024, Advisory on the Threat of Information through CCTV/Video Surveillance system, Ministry of Electronics and Information Technology (IPHW DIVISION).
- **22.** Bidders must adhere to the revision in Rules and Procedures in respect of IoT System Certification Scheme (IoTSCS) notified vide OM F.No. STQC/IT&eGov/IoTSCS/001 dated 22.05.2024 of STQC Directorate, Ministry of Electronics and Information Technology, New Delhi.
- **23. Defective Equipment:** If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise

faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 30 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, IIT (BHU) may consider "Banning" the supplier.

#### **IMPORTANT NOTE:**

- 1. Non-compliance of tender terms, non-uploading of required documents, lack of clarity of the specifications, contradiction between bidder specifications and supporting literature etc. may lead to rejection of the bid.
- 2. In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- 3. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

# All documents in support of above essential pre-bid criteria shall be scanned and uploaded under cover 1.

# **SECTION 5 : CHECKLIST FOR BID/TENDER SUBMISSION** (The following check-list must be filled in and submitted with the bid documents)

Sl. No.	Particulars	Yes/No
1	Have you mentioned the page no. and authorized signatory signature on each page of your bid document.	
2	Have you attached the techno commercial unpriced bid form duly filled in appropriately?	
3	Have you attached a copy of the last audited balance sheet of your firm as per tender requirement	
4	Have you attached the details of the income tax clearance certificate, proof of manufacturing unit/ dealership letter/ general order suppliers and copy of GST registration certificate?	
5	Have you executed the similar nature of work during 2023-24, 2022-23, 2021-22 in IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs	
6	Have you attached the copies of relevant work orders from IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs in prescribed Format?	
7	EMD : Have you submitted EMD asked for.	
8	Have you submitted samples of all items indicated in the respective schedule of requirements at the address of tender inviting authority within due date.	
9	Have you enclosed the schedule of requirement indicating the make offered without indicating the pricing components along with the techno commercial unpriced bid?	
10	Have you submitted the bids both techno commercial unpriced and priced bid separately for each tender?	
11	Have you enclosed the statement of deviations from financial terms and conditions, if any?	
12	Have you submitted the Technical Compliance Sheet?	
13	Have you attached Manufacturer's Authorization certificate for this Tender?	
14	Have you attached the Declaration on the letter pad of Bidder?	
15	Have you attached the compliance of Pre-qualification criteria?	
16	Have you attached the signed Tender acceptance letter?	
	Price Bid	
1	Have you signed and attached the priced bid form?	
2	Have you attached the schedule of requirements duly priced i.e BoQ in both .xls format and in .pdf format	

#### COMPLIANCE SHEET OF ESSENTIAL PRE BID CRITERIA

Sl. No	Essential Pre Bid Criteria	Compliance	Page No.
1	The bidder should be a company registered under the Companies Act, 1956/2013 or a partnership firm registered under Indian Partnership Act 1932 or Limited Liability Partnership Act 2008 with registered office in India and in operation for at least 10 years as on 31.03.2024		
2	The bidder should be a single legal entity/ individual organization. Consortium shall not be allowed		
3	The bidder must have executed One similar Order of Rs. 8 Crores or Two similar orders of Rs. 5 Crores of total project value of CCTV Surveillance, in last five years in one of any IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs directly with minimum 100 outdoor CCTV cameras setup. The order(s) must be directly in favor of the bidder only.		
4	The bidder must have a valid manufacturer authorization certificate for this specific Tender by clearly mentioning the Tender Ref. No. and Name of Tender issued from OEMs of CCTV, Switches, UPS etc		
5	The Bidder should have an average annual turnover of Rs. 25 Crore or more during the last 3 financial years ending FY 2024, i.e., 2021-22, 2022-23, 2023-24		
6	<ul> <li>Bidder must have all below certifications</li> <li>a) ISO 9001:2008/ ISO 9001:2015 for Quality Management System or latest</li> <li>b) ISO 20000:2011 for IT Service Management or latest</li> <li>c) ISO 27001:2013 for Information Security Management System or latest</li> <li>d) CMM Level 3 or more certified company</li> </ul>		
7	Bidders must have positive net worth and should be profit making in each of the last 3 financial years.		
8	A notarized affidavit on a Non-Judicial stamp of Rs 100 by the bidder that it has never been black-listed by any IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs		
9	The bidder should be registered with the GST Department and should carry a valid PAN in the name of the Company. A copy of Income tax clearance certificate, proof of manufacturing unit/ dealership letter/ general order suppliers, PAN card, and copy of GST registration certificate		
10	Certificate as per Annexure-V, VI, VII and VIII on the letterhead of the company must be uploaded.		
<u>11</u> 12	Adherence to all specifications is compulsory The Bidder must agree to give presentation and demonstrate the Proof of Concept as part of Technical Evaluation for their quoted make and models including compatibility with the existing network infrastructure of the institute. To evaluate the offered solution/products, POC will be conducted by a technical committee. POC date(s) will be intimated separately to prospective bidders		

#### **SECTION 6**

#### **DECLARATION**

(On the letter head of the firm submitting the bid)

- **1.** I, ------ Son /Daughter of Shri------ Proprietor/ Partner/ CEO /MD/ Director/ Authorized Signatory of M/s. ------- am competent to sign this declaration and execute this tender document.
- **2.** I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.
- **3.** The information/ documents furnished along with the above application are true and authentic to the best of my knowledge and belief.
- **4.** I/ we/ am well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.
- **5.** Each page of the tender document and papers submitted by my Company is authenticated, sealed and signed, and I take full responsibility for the entire documents submitted.
- 6. This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.
- 7. The prices quoted in the price bids are subsidized due to academic discount given to IIT (BHU), Varanasi.
- 8. We, further specifically certify that our our organization has never been Black Listed/De Listed or put to any Holiday by any IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs till date.

Signature of the Authorized Person

Date: ------

Full Name -----

Place: -----

Company Address with Seal

### SECTION 7

#### TENDER FORM (Techno commercial un-priced Bid)

(On the letter head of the firm submitting the bid)

Tender No.

To The Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

Dear Sir,

- 1. I/We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders;
- 2. I/We meet the eligibility requirements and have no conflict of interest;
- 3. I/We have not been suspended nor declared ineligible in India;
- 4. I/We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services]*;
- 5. I/We offer to supply the items as listed in the schedule to this tender hereto/portion thereof as you may specify in the acceptance of Tender at the price given in the said Schedule and agree to hold this offer open for a period of ...... days from the date of opening of the tender.
- 6. I/we shall be bound by a communication of acceptance issued by you.
- 7. I/We have understood the Instruction to bidders and Conditions of Contract in the form as enclosed with the invitation to the tender and have thoroughly examined the specifications quoted in the Schedule hereto and am/are fully aware of the nature of the goods required and my/our offer is to supply the goods strictly in accordance with the specifications and requirements.
- 8. Details of submitted EMD has been enclosed.
- 9. The following have been added to form part of this tender.
  - (a) Schedule of requirements, quoting the make only duly signed and stamped.(without indicating price)
  - (b) Income Tax clearance certificate.
  - (c) Copy of last audited balance sheet.
  - (d) Copy of Valid GST registration certificate.
  - (e) Copy of similar relevant major purchase orders executed during 2021-22, 2022-23, 2023-24 in IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs.
  - (f) Proof of manufacturing Unit, dealership certificate/general order suppliers.
  - (g) Statement of deviations from financial terms & conditions, if any.
  - (h) Any other enclosure. (Please give details)

- 10. We undertake to execute all orders which have been placed to meet emergent requirements on priority basis.
- 11. Certified that the bidder is:
  - (a) A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor,
  - Or
  - (b) A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.
  - Or
  - (c) A company and the person signing the document is the constituted attorney.

# (NOTE: Delete whatever is not applicable. All corrections/deletions should invariable be duly attested by the person authorized to sign the bid document).

- 12. We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof shall constitute a binding contract between us.
- 13. If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
- 14. We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process, other than alternative bids submitted;
- 15. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption

Name of the Bidder\* .....

Name of the person duly authorized to sign the Bid on behalf of the Bidder\*\* .....

Title of the person signing the Bid .....

Signature of the person named above .....

Date signed ..... day of .....

\* In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder \*\* Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.

Yours faithfully,

(Signature of bidder with company seal)

Dated this	s day of			
Address:		 	 	

Telephone No. :	FAX
Telephone No. :	FAX

E-mail\_\_\_\_\_

#### **TENDER FORM**

#### (Priced Bid)

(On the letter head of the firm submitting the bid document)

To, **The Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology** (Banaras Hindu University) Varanasi-221005

Ref: Tender No.....Dated: .....

Sir,

Having examined the bidding documents and having submitted the techno commercial unpriced bid for the same, we, the undersigned, hereby submit the priced bid for supply of goods and services as per the schedule of requirements and in conformity with the said bidding documents.

- 1. We hereby offer to supply the Goods/Services at the prices and rates mentioned in the enclosed schedule of requirement.
- 2. We do hereby undertake that, in the event of acceptance of our bid, the supply of Goods/Services shall be made as stipulated in the schedule of requirement and that we shall perform all the incidental services.
- 3. The prices quoted are inclusive of all charges net FOR, IIT(BHU) Varanasi and should be mentioned clearly. We enclose herewith the complete Financial Bid as required by you. This includes:
- a. Price Schedule (Bill of Quantity-BOQ).
- b. Statement of deviations from financial terms and conditions.
- 4. We agree to abide by our offer for a period of 365 days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.
- 5. We have carefully read and understood the terms and conditions of the bid document and we do hereby undertake to supply as per these terms and conditions. The Financial Deviations are only those mentioned in the statement of deviations from financial terms and conditions.
- 6. We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Nam	e of Recip	ient	А	ddress				Reason			Amoun	t
(If	none	has	been	paid	or	is	to	be	paid,	inc	licate	"none.")

- 7. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- 8. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Certified that the bidder is:

A sole proprietorship firm and the person signing the bid document is the sole proprietor/ constituted attorney of sole proprietor,

Or

A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney,

Or

A company and the person signing the bid document is the constituted attorney.

(NOTE: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document.)

We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

Dated this day of Signature of Bidder Details of enclosures Full Address: Telephone No
Mobile No. : Fax No. : E-mail: Company Seal:

# **TENDER ACCEPTANCE LETTER** (To be given on Company Letter Head)

Date:

The Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No.\_\_\_\_\_

#### Name of Tender/ Work: TENDER FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF CCTV CAMPUS SURVEILLANCE SYSTEM AT IIT (BHU) VARANASI

Dear Sir,

- I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: ..... as per your advertisement, given in the above mentioned website(s).
- I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_\_\_to \_\_\_\_\_\_(including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.
- 3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
- I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.
- 5. In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully,

(Signature	of	the	Bidder,	with	Official	Seal)
------------	----	-----	---------	------	----------	-------

#### FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)/ PERFORMANCE SECURITY

#### (TO BE ESTABLISHED THROUGH ANY OF THE **NATIONALISED COMMERCIAL BANKS OF INDIA** (WHETHER SITUATED AT VARANASI OR OUTSTATION WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT VARANASI)

To,

The Registrar, Indian Institute of Technology (BHU), Varanasi-221005

#### **LETTER OF GUARANTEE**

WHEREAS Indian Institute of Technology (BHU), Varanasi (Buyer) has invited tender vide Tender No...... dated...... for purchase of .....

AND WHEREAS the said tender document requires that eligible successful bidder (seller).wishing to supply the equipment / machinery, etc. in

response thereto shall establish an irrevocable Performance Bank Guarantee in favour of "The Registrar, Indian Institute of Technology (BHU), Varanasi" in the form of Bank Guarantee for Rs

This Bank further agrees that the decision of Indian Institute of Technology (BHU), Varanasi (Buyer) as to whether the said bidder (Seller) has committed a breach of any of the conditions referred in tender document / Award of Contract shall be final and binding.

1. Our liability under this Bank Guarantee shall not exceed Rs. ......(Indian Rupees ......only).

(date) and

- 2. This Bank Guarantee shall be valid up to
- 3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IIT (BHU), Varanasi serve upon us a written claim or demand on or before ....... (date).

Yours truly,

Signature and seal of the guarantor: Name of Bank: Address: Date:

# **SCHEDULE OF REQUIREMENTS**

#### I. TECHNICAL SPECIFICATIONS

# TENDER FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF CCTV CAMPUS SURVEILLANCE SYSTEM AT IIT (BHU) VARANASI

Sr. No	Name and Description	Quantity	Units	Whether provided is complied with the given specification (Yes / No)
1	SITC of 5MP Bullet Camera with 50M IR Distance. Outdoor/Indoor VF Dome Camera Supply, Installation, Testing & Commissioning of 5MP IP Network TDN Low-Light IR Rugged Dome Camera, 1/2.8" CMOS or better, 5MP (2592 x 1944) @ 25fps or better, triple stream at various resolution & Frame Rates, Min. Illumination required 0.005 lux @ F1.6 (color), 0 Lux IR On, 4 IR LEDs Smart IR with upto 50m IR distance, Auto ICR (Infrared Cut Filter) 120dB True WDR, S/N Ratio 50db, Shutter Speed 1/8 - 1/30,000; Advance Video Compression technology such as H.265 & H.264 High Profile & MJPEG , Triple stream, 2.7 to 13.5mm 5X motorized focus & zoom lens, Field of View FoV H:96°-26°, BLC, HLC, 3DNR White Balance, Minimum Edge Intelligence Video Analytics : Video Motion Detection, Tampering, Loitering, Intrusion, & People Counting, 4 Privacy Mask, 8 Region Of Interest, Defog, TLS1.2, AES-128/256, SSH/Telnet closed, Stream Encryption, Dual channel Audio, Alarm: 1In/ 1out, 256GB SD card support, PoE (802.3 af) and 12V DC, Max 6W, IP 66, IK 10 vandal proof with Die Cast Aluminium Housing, Having Operating temp range : -40°C to 60° C. Certifications: ONVIF Profile S/G/T compliant, UL/CSA 62368-1, CE (EN 50130-4), FCC Part 15, EN 55032, RoHS (EN63000) & NDAA Section 889 compliant.		Nos	
2	<ul> <li>SITC of Network Video Recorder Software License for Primary &amp; Failover (N+1) for 320 Cameras.</li> <li>Supply, Installation, Testing &amp; Commissioning of Network Video Recording Software (Recording Licenses), Shall support min 320 Cameras with 5 MP Resolution, 25fps with N+1 Redundancy. NVR shall support UHD, 4K, Full HD resolution, H.265 compression codec, multi-imager/lens cameras and 360° fisheye cameras. The NVR shall support in N+1 failover features so that more failover can be added if required. NVR shall be licenced for 320 cameras &amp; 04 users clients with 128 Camera Failover and camera and Client should be upgradable in future as per client requirement. The NVR should support network joystick controller, GPU rendering support for H.264 and H.265 decoding , video on demand, Adaptive video throttling, rule engine, operator role management, server based Video Motion Detection (VMD), edge storage backfill support, bookmark with manual comment, bookmark based search, timeline search, Preview search, synchronous playback, monitor wall support, surrounding camera mode, Cyber secured with features such as Digital Signing, General Data Protection Regulation (GDPR) compliance, HTTPS &amp; SSL base, smart web client, secured firewall configuration, password expiry, non-recoverable password; support ANDROID &amp; iOS phones,</li> </ul>		Set	

	seamless integration with integrated Access Control System. NVR			
	Shall be listed on ONVIF website for ONVIF S, G & T support compliance.			
3	SITC of Video Management Software for 320 Cameras along with Client License(8 No's).	1	Set	
	Supply, Installation, Testing & Commissioning of ONVIF Certified Network Video Management Software (VMS) system required to support min 500 Cameras for Central Monitoring and Control on need basis as and when required. VMS support UHD, 4K, Full HD resolution, H.265 compression codec, multi-imager/lens cameras and 360° fisheye cameras. The VMS shall have option to support failover features if required in future. VMS shall be licenced for 320 cameras & 4 users clients expandable beyond in the same hardware server to support 2000 cameras and 25 User Clients . The VMS should support network joystick controller, GPU rendering support for H.264 and H.265 decoding , video on demand, Adaptive video throttling over network for Live Video, rule engine, operator role management, server based Video Motion Detection (VMD), edge storage backfill support, bookmark with manual comment, bookmark based search, timeline search, Preview search, synchronous playback, monitor wall support, surrounding camera mode, Cyber secured with features such as Digital Signing, General Data Protection Regulation (GDPR) compliance, HTTPS & SSL base, smart web client, secured firewall configuration, password expiry, non-recoverable password; support ANDROID & iOS phones, seamless integration with integrated Access Control System.			
4	SITC of 8 Port PoE Switch with 2 Port Fiber.	65	Nos	
	General Features : Switch should be 1U and rack mountable in standard 19" rack. Switch should have minimum 2GB RAM and 4GB Flash. Performance : Switch shall have minimum 60 Gbps of switching fabric and 44 Mpps of forwarding rate. Should be non-blocking and provide wire speed forwarding rate. Should be non-blocking and provide wire speed forwarding rate. Should be non-blocking and provide wire speed forwarding rate. Switch shall have minimum 32K MAC Addresses and 4000 VLAN IDs Should support minimum 10K IPv4 routes or more Switch shall have 1K or more multicast routes. Switch should support atleast 16K flow entries Switch should support atleast 16K flow entries Switch should have 6MB or more packet buffer. Functionality : Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.1ae, 802.3u, 802.3ab, 802.3z. Switch must have functionality like static routing, RIP, REP, PIM, OSPF, VRRP, PBR and QoS features from Day1. Switch should support network segmentation that overcomes the limitation of VLANs using VXLAN and VRFs. Switch should support management features like SSHv2, SNMPv2c, SNMPv3, NTP, RADIUS and TACACS+ . General Features : Switch should be 1U and rack mountable in standard 19" rack. Switch should have minimum 2GB RAM and 4GB Flash. Performance : Switch shall have minimum 60 Gbps of switching fabric and 44 Mpps of forwarding rate. Should be non-blocking and provide wire speed			

-				
	forwarding rate.			
	Switch shall have minimum 32K MAC Addresses and 4000 VLAN			
	IDs			
	Should support minimum 10K IPv4 routes or more			
	Switch shall have 1K or more multicast routes.			
	Switch should support atleast 16K flow entries.			
5	SITC of 24 Port PoE Switch with 4 port Fiber.	1	Nos	
	(for Satish Dhawan Hostel)			
	Functionality :			
	Switch should support IEEE Standards of Ethernet: IEEE 802.1D,			
	802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3,			
	802.1ae, 802.3u, 802.3ab, 802.3z.			
	Switch must have functionality like static routing, RIP, REP, PIM,			
	OSPF, VRRP, PBR and QoS features from Day1.			
	Switch should support internal field replaceable unit redundant power supply from day 1.			
	Switch should have minimum 2 GB RAM and 2 GB Flash.			
	Switch should have dedicated slot/Ports for modular stacking, in			
	6			
	addition to asked uplink ports. Should support for minimum 80 Gbps of stacking thoughput with 8 switch in single stack.			
	Performance :			
	Switch shall have minimum 128 Gbps of switching fabric and 95			
	Mpps of forwarding rate.			
	Switch shall have minimum 16K MAC Addresses and 250 active			
	VLAN.			
	Should support minimum 11K IPv4 routes or more			
	Switch shall have 1K or more multicast routes.			
	Switch should support atleast 16K flow entries			
	Switch should support 128 or more STP Instances.			
	Switch should have 6MB or more packet buffer.			
	Functionality :			
	Switch should support IEEE Standards of Ethernet: IEEE 802.1D,			
	802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3,			
	802.3u, 802.3ab, 802.3z.			
	Switch must have functionality like static routing, RIP, PIM,			
	OSPF(1000 routes), VRRP, PBR and QoS features from Day1			
	Switch should support network segmentation that overcomes the			
	limitation of VLANs using VXLAN and VRFs.			
	Switch shall have 802.1p class of service, marking, classification,			
	policing and shaping and eight egress queues.			
	Switch should support management features like SSHv2, SNMPv2c,			
	SNMPv3, NTP, RADIUS and TACACS+.			
	Switch should support IPv6 Binding Integrity Guard, IPv6 Snooping,			
	IPv6 RA Guard, IPv6 DHCP Guard, IPv6 Neighbor Discovery Inspection and IPv6 Source Guard.			
	Switch should support 802.1x authentication and accounting, IPv4 and			
	IPv6 ACLs and Dynamic VLAN assignment and MACSec-128 on			
	hardware for all ports.			
	Switch must have the capabilities to enable automatic configuration of			
	switch ports as devices connect to the switch for the device type.			
	Interfaces			
	Switch shall have 24 nos. 10/100/1000 Base-T PoE ports and			
	additional 4 nos. SFP+ uplinks ports.			
	All 24 port should support PoE (802.3af) and PoE+ (802.3at) with a			
	PoE power budget of 370 W.			
	Certification:			
	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN			
	60950 Standards for Safety requirements of Information Technology			
	Equipment.			
	Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B			
	or CE Class A/B or FCC Class A/B Standards for EMC (Electro			
	Magnetic Compatibility) requirements.			
	Magnetic Compatibility) requirements.			

	Switch / Switch's Operating System should be tested for EAL 2/NDPP or above under Common Criteria Certification. OEM should be listed in Gartner Leader Quadrant for Wired and Wireless LAN Infrastructure from last 3 years before releasing this RFP.			
6	SITC of 1G SFP Transceiver.	132	Nos	
7	Specifications Speed 1Gbps Single Mode SFP should be compatible with the offered equipments Distance: 10KM SITC of OFC Patch Cord Duplex (3 Mtrs).		Nos	
	Features: LC-LC Duplex Small diameter, light weight, easy to connect and support large capacity data transmission.			
	Supplied on 2mm Zipcord duplex cable that reduces cable congestion, allows for greater finger access in patching areas, and improves airflow around active equipment. Fiber Count: 2			
	Secondary Buffer OD: 900 ± 50μm Aramid Yarn: Aramid Yarns acting as strength member to protect the fiber cores.			
	Outer jacket OD: 2.00 mm x 4.00mm (Duplex Zip Cord) Minimum bending radius(mm): 20xD Operating Temperature: -20 °C to +60 °C Return Loss			
	>= 55dB Optical Specification: Fiber Mode SM, OS2 Insertion Loss:			
	≤ 0.30 dB Length 3 Mtr. OEM Eligibility:			
	OEM should have manufacturing unit in India for at-least 5 years or more. Should have Indian Technical Support Centre, Warehouse and RMA center in India.			
	All passive products from single OEM & should be manufactured as per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel performance. OEM should be a member of TIA organization.			
8	SITC of 6 Port LIU (Fully Loaded).	65	Nos	
	Type: 6 Port Single Mode Full Loaded LIU LIU: Standard 19" Rack mountable with 6 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application			
	Fiber Count: 6			

<b></b>				
	Loaded with Pigtails:			
	LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer			
	Material:			
	Steel			
	Loaded with Couplers:			
	LC Duplex Couplers			
	Accessories Loaded in Panel:			
	12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice			
	Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps			
	Optical Characteristics for Loaded Pigtail:-			
	Insertion Loss:			
	<= 0.3 dB			
	Return Loss:			
	>= 55  dB			
	Operating Temperature:			
	$-10 \degree C$ to $+60 \degree C$			
	RoHS Compliant:			
	Pigtails Compliant as per RoHS Directive 2011/65/EU, Complies to			
1	ANSI/TIA-568.3-D, IEC 60794-2, ISO/IEC 11801			
1	OEM Eligibility:			
	OEM should have manufacturing unit in India for at-least 5 years or			
1	more. Should have Indian Technical Support Centre, Warehouse and			
	RMA center in India.			
	NWA CERCEI III IIIUIA.			
1				
	All passive products from single OEM & should be manufactured as			
	per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel			
	performance.			
	OEM should be a member of TIA organization.			
9	SITC of 9U Weatherproof Junction Box with 500mm Depth.	42	Nos	
	1			
	Standard 19" Wall/Pole Mount, 9U with 500mm Depth			
	Panel with ventilation and cable entry facility			
	Provision to mount cooling fans on the top/Side panel			
	Weather Proof level for Outdoor Use.			
	Lockable front Door			
	Power Distribution Units 6 socket 5/15 Amp			
	1U Horizontal Cable Manager			
	Standard Accessories including fans and one Hardware Packet			
	It shall be in compliance with ROHS standards			
10	SITC of 9U Wall Mount Network Rack with 500mm Depth.	28	Nos	
	1			
	Standard 19" Wall Mount, 9U with 500mm Depth			
	Top/bottom Panel with ventilation and cable entry facility			
	Provision to mount cooling fans on the top/side panel			
	Lockable front Door			
	Power Distribution Units 6 socket 5/15 Amp			
	1U Horizontal Cable Manager			
	Standard Accessories including fans and one Hardware Packet			
	It shall be in compliance with ROHS standards			
11	SITC of 1KVA UPS with inbuilt Batteries.	65	Nos	
1	Capacity:			
1	1000VA			
	Technology :			
	PWM-MOSFET			
	Input Range :			
	Single Phase 140 -300 VAC			
1	Output (AVR Mode):			
1	230 +/- 9% 50Hz			
	Output (Battery Mode):			
1	230VAC Sine Wave			
1	Battery:			
	12V 7AH SMF-VRLA Batteries 04 Nos inbuilt			
L				1

	THD:			
	Less than 5%			
	Warranty :			
	05 Years on UPS and Batteries both			
	Certificates:			
	ISO 9001, 14001, BIS, CE, Make In India, Test Report			
12	Supply and Laying of 6 Core Armoured Optical Fibre Cable.	8000	Mtrs	
	Supply and Laying of a core minoured optical risk cousies	0000		
	Туре:			
	6 Core Armored Single mode (9/125μm) Fiber optic Cable suitable for			
	Outdoor application			
	Cable:			
	6 Core Single mode fiber optic cables armored with colored fiber			
	cores. Fiber cable is perfectly suited for both gigabit Ethernet and 10			
	gigabit Ethernet campus and backbone applications.			
	Application:			
	The constructions are of ECCS Tape Armored Uni Tube design with			
	HDPE outer Jacket making it suitable for Outdoor applications			
	Outer Sheath:			
	HDPE Jacket / Black or Yellow			
	Fiber Count: 6		1	
	Cable Specifications:		1	
	Fiber Color : Blue, Orange, Green, Brown, Grey, White		1	
	Cable diameter : $9.2 \pm 0.5$ mm		1	
	Crush Resistance:			
	3000 N/100mm			
	Bend Radius:			
	20 X D (mm)			
	Tensile Load (max):			
	2000 N			
	Optical Properties:			
	Cladding Non-circularity : $\leq 0.7$ %			
	Cladding Diameter : $125.0 \pm 0.7 \ \mu m$			
	Core/cladding Concentricity Error : $\leq 0.5 \ \mu m$			
	Primary Coating Diameter : $250 \pm 15 \mu m$			
	Attenuation Co-efficient :			
	1310 Wavelength (nm) : $\leq 0.36 \text{ dB/km}$			
	1550 Wavelength (nm) : $\leq$ 0.22 dB/km			
	Chromatic Dispersion :			
	1285 - 1330 Wavelength (nm) : $\leq$ 3.5 ps/nm.km (Min)			
	1550 Wavelength (nm) : $\leq$ 18 ps/nm.km (Min)			
	Temperature Range:			
	Operating Temperature Range: -20°C to +70 °C			
	Compliance Standard:		1	
	Complies to IEC 60793, IEC 60794 1		1	
	RoHS Compliant:		1	
	Compliant as per RoHS Directive 2011/65/EU		1	
	OEM Eligibility: OEM should have manufacturing unit in India for at least 5 years or		1	
	OEM should have manufacturing unit in India for at-least 5 years or		1	
	more. Should have Indian Technical Support Centre, Warehouse and		1	
	RMA center in India.			
	All passive products from single OEM & should be manufactured as		1	
	per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel performance.		1	
			1	
12	OEM should be a member of TIA organization.	8000	Mtera	
13	Supply and Laying of 3 Core 1.5 Sqmm Power Armoured Cable.	8000	Mtrs	
	Supply and laving of 2 Core 1.5 Same DVC Coted 1100 V		1	
	Supply and laying of 3 Core 1.5 Sqmm, PVC Coted, 1100 V graded		1	
1.4	Power cable or as per site requirement	25	De	
14	Supply and Laying of CAT6 F/UTP Cable	35	Box	
	Type: CATE FAITD Shielded I S74 Cable		1	
	Type: CAT6 F/UTP Shielded LSZH Cable 8 X 23 AWG solid bare copper Electrolytic Grade Copper Conductors		1	
L	0 A 25 A we some oare copper Electrorytic Grade Copper Colluctors		1	

	Twisted as 4 Pairs; Overall Cable Foil Shielded or Better. The twisted			
	pairs are covered with a PVC/LSZH Outer Jacket, Category 6,			
	confirming to ANSI/TIA 568.2-D for Category 6.			
	Support: Supports 10/100/1000Base-T, 155Mbps ATM, IEEE 802.3an			
	(10GBase-T) Standard requirement for Applications such as High-			
	Speed Data, Voice & Video Signals over LANs, Server Farms and			
	Other Bandwidth Sensitive Indoor Applications.			
	Conductors: Solid bare copper 23 AWG			
	Pair Separator			
	+ Shape Spline			
	Packing			
	Box of 305 meters			
	Cable Outer Diameter			
	$7.5 \pm 0.5 \text{ mm}$			
	Insulation Material :			
	Polyolefin			
	Pairing			
	2 insulated conductors twisted together			
1	Individual Pair shielding: No			
1	Overall Shield:			
1	Aluminium Polyester Foil Shielded, 100% Coverage with TC Drain			
	Wire			
1	Delay Skew:			
1	< 45 ns			
1	Conductor Resistance:			
	$\leq 95.0 \Omega / \text{km} (a) 20^{\circ} \text{C}$			
	Mutual Capacitance:			
	$\leq$ 5.6 nF/100 m @1KHz			
	Resistance Unbalance:			
	5% Max @20°C			
	Capacitance Unbalance:			
	330 pF/100 m			
	Bend Radius:			
	Minimum 8X cable diameter			
	Pulling Force:			
	80N or Better			
	Nom. Velocity of Propagation:			
	67% or Better			
	Temperature Range Operation:			
	-30 °C to +60 °C			
	Flame Properties:			
1	Flammability Test : IEC 60332-1			
1	Acid Gas Emission Test : IEC 60754			
1	Smoke Density Test : IEC 61034			
1				
1	ROHS Compliant: Should be Compliant of non PollS Directive 2011/65/EU			
	Should be Compliant as per RoHS Directive 2011/65/EU			
	OEM Eligibility:			
	OEM should have manufacturing unit in India for at-least 5 years or			
1	more. Should have Indian Technical Support Centre, Warehouse and			
1	RMA center in India.			
1				
1	All passive products from single OEM & should be manufactured as			
1	per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel			
1	performance.			
1				
1.7	OEM should be a member of TIA organization.	<b>5</b> 00		
15	SITC of RJ45 Connectors.	500	Nos	
1				
1	Туре:			
1	Filed Installation MPTL Shielded RJ45 Connector Plug with IP20			
1	Rating or Better			
1	Function:			
	Fast Installation RJ45 Plug have been designed for mechanical and			
1	electrical reliability, using quality materials, to deliver a quick male			
	electrical reliability liging quality materials to doliver a qual mala			

-				-
	connector solution that minimizes the time required by the installer to			
	complete each termination.			
	Features:			
	RJ45 Contact life $\geq 750$ times			
	Mechanical Characteristics:			
	РоЕ			
	Support IEEE 802.3bt Type 4			
	UL Listed:			
	cUL Listed			
	Performance:			
	Cat6 or Better with Min. 250Mhz and 1Gbps Support			
	Termination:			
	Termination of cable on Plug through Universal Termination Tool to			
	minimize any manual termination like punch down. All the four pairs			
	should get crimped and cut together with the help of the tool.			
	IP Rating:			
	IP20 or Better			
	Wire:			
	24 – 23 AWG			
	Operating Temperature range:			
	-10 °C to +60 °C			
	RoHS Compliant:			
	Compliant as per RoHS Directive 2011/65/EU			
	OEM Eligibility:			
	OEM should have manufacturing unit in India for at-least 5 years or			
	more. Should have Indian Technical Support Centre, Warehouse and			
	RMA center in India.			
	All passive products from single OEM & should be manufactured as			
	per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel			
	performance.			
	L			
16	OEM should be a member of TIA organization. Supply and Laying of 25mm Conduit Medium Class	2000		
16	Subbly and Laving of 25mm Conduit Medium Class			
1	Supply and Laying of Zenini Conduit Fredulin Class	2000	Mtrs	
		2000	Mtrs	
	Supply and laying of medium class, 25 mm PVC Conduit along with	2000	Mtrs	
		2000	Mtrs	
	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement			
17	Supply and laying of medium class, 25 mm PVC Conduit along with	6400	Mtrs Mtrs	
	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40mm HDPE Pipes			
	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling			
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement	6400	Mtrs	
	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling			
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement SITC of Outdoor OFC Joint Enclosure	6400	Mtrs	
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement	6400	Mtrs	
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement SITC of Outdoor OFC Joint Enclosure Supply, Installation, Testing and Commissioning of OFC Joint	6400	Mtrs	
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement SITC of Outdoor OFC Joint Enclosure Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site	6400	Mtrs	
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement SITC of Outdoor OFC Joint Enclosure Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement	6400	Mtrs Nos.	
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement SITC of Outdoor OFC Joint Enclosure Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site	6400	Mtrs	
17	Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement Supply and Laying of 33/40 mm HDPE Pipes Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement SITC of Outdoor OFC Joint Enclosure Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement	6400	Mtrs Nos.	
17	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> </ul>	6400	Mtrs Nos.	
17	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount</li> </ul>	6400	Mtrs Nos.	
17	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> </ul>	6400	Mtrs Nos.	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount</li> </ul>	6400	Mtrs Nos.	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> <li>Switch should support optional SSD to host 3rd party container based application.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> <li>Switch shall have hot swappable 1:1 redundant internal power supply</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> <li>Switch shall have hot swappable 1:1 redundant internal power supply and redundant fan.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> <li>Switch shall have hot swappable 1:1 redundant internal power supply and redundant fan.</li> <li>Switch must have dedicated port, in addition to asked uplink ports.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall bave 16 GB RAM and 16 GB Flash</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> <li>Switch shall have hot swappable 1:1 redundant internal power supply and redundant fan.</li> <li>Switch must have dedicated port, in addition to asked uplink ports.</li> <li>Should support for minimum 400 Gbps of stacking thoughput.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17       18       19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall be 16 GB RAM and 16 GB Flash</li> <li>Switch should support optional SSD to host 3rd party container based application.</li> <li>Switch shall have hot swappable 1:1 redundant internal power supply and redundant fan.</li> <li>Switch must have dedicated port, in addition to asked uplink ports.</li> <li>Should support for minimum 400 Gbps of stacking thoughput.</li> </ul>	6400 65 80	Mtrs Nos. Nos	
17 18 19	<ul> <li>Supply and laying of medium class, 25 mm PVC Conduit along with joint and bend etc as per site requirement</li> <li>Supply and Laying of 33/40 mm HDPE Pipes</li> <li>Supply and laying of 33/40 mm HDPE Pipe for outdoor fiber cabling along with joint and bend etc as per site requirement</li> <li>SITC of Outdoor OFC Joint Enclosure</li> <li>Supply, Installation, Testing and Commissioning of OFC Joint enclosure for outdoor fiber cable along with all accessories as per site requirement</li> <li>SITC of 6 Meters Pole for Cameras.</li> <li>Supply and Installation of 6 Meter GI pole for outdoor camera mount as per site requirement</li> <li>SITC of 24 port 25G/10G SFP+ Switch.</li> <li>Switch shall be 1U to 3U and rack mountable in standard 19" rack.</li> <li>Switch shall have 16 GB RAM and 16 GB Flash</li> <li>Switch shall have hot swappable 1:1 redundant internal power supply and redundant fan.</li> <li>Switch must have dedicated port, in addition to asked uplink ports.</li> <li>Should support for minimum 400 Gbps of stacking thoughput.</li> </ul>	6400 65 80	Mtrs Nos. Nos	

	<ul> <li>VLAN IDs</li> <li>Switch should support minimum 4K ACLs, 8K Multicast and 30K</li> <li>IPv4, 15K IPv6 Routes</li> <li>Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.</li> <li>Packet buffer : 16 MB</li> <li>The offer product series should be IPv6 logo certified from day one</li> <li>Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2</li> <li>Should support AES-256 support with MACSEC-256 encryption algorithm on hardware</li> <li>Support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP)</li> <li>Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.</li> <li>Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.</li> <li>Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.</li> <li>IPv6 support in hardware, providing wire rate forwarding for IPv6 network</li> <li>Should support S02.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.</li> <li>Eight egress queues per port for different types.</li> <li>During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware &amp; BIOS are authentic.</li> <li>Interface: 24 x 1/10/25G SFP28 Interfaces</li> <li>Certification:</li> <li>Switch should conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards:</li> <li>Switch / Switch's Operating System should be tested for EAL 2/NDPP</li> </ul>			
	or above under Common Criteria Certification.			
21	SITC of 10G SFP Transceiver.	36	Nos	
	Speed 10Gbps Single Mode/Multimode SFP should be compatible with the offered equipments			
22	SITC of 1G Copper SFP Monitoring System	4	Nos	
	Speed 1Gbps Shall be compatible with copper cable SFP should be compatible with the offered equipments			
23	SITC of OFC Patch Cord Duplex (3 Mtr)	36		
	Same Specification as mentioned in Sr.No.7			
24	SITC of Network Video Recorder Primary (128 Channel Network Video Storage Manager Server). Market position: The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters		Nos.	
	Chipset:			

Intel® C620 series chipset	
Form Factor:	
Max. 1U rack mounted with OEM sliding rails	
Configured CPU: Dual 3rd Generation Intel Xeon Scalable processors each with min 12	
cores 2.1GHz base frequency	
Memory slots:	
Should have min 16 DDR4 DIMM slots. Should support upto 1TB	
with speeds 3200 MT/s.	
Memory configured:	
Min 32 GB DDR4, Dual Rank	
Disks supported:	
Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay	
Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay	
RAID Controller:	
12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60	
Disks configured:	
Min 2x 480GB SSD in RAID1 for OS and Applications.	
Network Ports:	
2x 10G SFP+ Ports	
2x 32G FC ports HBA	
I/O slots	
Up to 2 PCIe Slots	
Ports:	
Front Ports	
1 x Dedicated Management micro-USB	
1 x USB 2.0	
1 x VGA Rear Ports:	
1 x USB 2.0	
1 x USB 2.0 1 x USB 3.0	
1 x Dedicated Management Ethernet port	
1 x VGA	
OS & Hypervisor supportCanonical Ubuntu Server LTS:	
Windows Server with Hyper-V	
Red Hat Enterprise Linux	
SUSE Linux Enterprise Server	
VMware ESXi	
Power Supply	
Dual, hot swap, redundant PSUs	
Management integration	
Support for integration with Microsoft System Center, VMware	
vCenter and vRealize Operations Manager, BMC Software,	
ServiceNow, Red Hat Ansible Modules, and Terraform Providers	
Power & temperature	
Real-time power meter, graphing, thresholds, alerts & capping with	
historical power counters.	
Temperature monitoring & graphing:	
Pre-failure alert	
Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply,	
memory, CPU, RAID, NIC, HDD	
Configuration & management:	
Real-time out-of-band hardware performance monitoring & alerting	
Agent-free monitoring, driver updates & configuration, power	
monitoring & capping, RAID management, external storage	
management, monitoring of FC, HBA & CNA & system health	
management, monitoring of FC, HBA & CNA & system health Out-of-band hardware & firmware inventory	
management, monitoring of FC, HBA & CNA & system health Out-of-band hardware & firmware inventory Zero-touch auto configuration to auto deploy a baseline server	
Out-of-band hardware & firmware inventory	
Out-of-band hardware & firmware inventory Zero-touch auto configuration to auto deploy a baseline server	

	to multiple servers			
	Zero-touch repository manager and self-updating firmware system			
	Virtual IO management / stateless computing			
	LCD panel			
	LCD / Security bezel. Should display system ID, status information			
	and system error code followed by descriptive text. LCD background			
	should light up in different colors during normal system operation &			
	error conditions.			
	HTML5 support			
	HTML5 support for virtual console & virtual media without using			
	Java or ActiveX plugins			
	Server security			
	Should have a cyber resilient architecture for a hardened server design			
	for protection, detection & recovery from cyber attacks			
	Server security			
	Should provide effective protection, reliable detection & rapid			
	recovery using:			
	Cryptographically signed firmware			
	Data at Rest Encryption (SEDs with local or external key			
	management)			
	Secure Boot			
	Secure Erase			
	Secure Erase Secured Component Verification (Hardware integrity check)			
	Secured Component Vermeation (Hardware Integrity check) Silicon Root of Trust			
	System Lockdown			
	TPM 2.0 FIPS, CC-TCG certified			
	Server security			
	(continued)			
	Configuration upgrades should be only with cryptographically signed			
	firmware and software. Should protect against firmware which			
	executes before the OS boots			
	Server security			
	(continued)			
	Should provide system lockdown feature to prevent change (or "drift")			
	in system firmware image(s) & prevent malicious modification of			
	server firmware			
	Intrusion alert			
	Intrusion alert in case chassis cover being opened			
	OS			
	Microsoft Windows Server 2022 OS / Red Hat Enterprise Linux 9.0 or			
	latest			
	Performance Benchmark			
	SPEC/ OSG Integer Speed, FP Speed, Integer Rates and FP Rates			
	benchmarks as per "spece, if spece, integer Rates and if Rates benchmarks as per "spec.org" to be submitted.			
	Certifications			
	Server should have BIS, IEC60950 (UL) certification.			
	Server should have EPEAT registered in India.			
	Server OEM should have ISO9001, ISO27001 and ISO45001.			
	Warranty			
	5 years On-site comprehensive Next Business Day warranty with			
	24x7x365 remote hardware support. The warranty should reflect in the			
	support web site of the OEM.			
	11			
25	SITC of Network Video Recorder Secondary (Failover)	1	Nos.	
	(128 Channel Network Video Storage Manager Server).			
	Market position:			
	The OEM for the proposed server must be in one of the top three			
	server vendors (by market share revenue in IDC) in any of the			
		1	1	
	previous 2 quarters			
	previous 2 quarters Chipset:			
	previous 2 quarters Chipset: Intel® C620 series chipset			

	1
Form Factor:	
Max. 1U rack mounted with OEM sliding rails	
Configured CPU:	
Dual 3rd Generation Intel Xeon Scalable processors each with min 12	
cores 2.1GHz base frequency	
Memory slots:	
Should have min 16 DDR4 DIMM slots. Should support upto 1TB	
with speeds 3200 MT/s.	
Memory configured:	
Min 32 GB DDR4, Dual Rank	
Disks supported:	
Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay	
Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay	
RAID Controller:	
12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60	
Disks configured:	
Min 2x 480GB SSD in RAID1 for OS and Applications.	
Network Ports:	
2x 10G SFP+ Ports	
2x 32G FC ports HBA	
I/O slots	
Up to 2 PCIe Slots	
Ports:	
Front Ports	
1 x Dedicated Management micro-USB	
1 x USB 2.0	
1 x VGA	
Rear Ports:	
1 x USB 2.0	
1 x USB 3.0	
1 x Dedicated Management Ethernet port	
1 x VGA	
OS & Hypervisor supportCanonical Ubuntu Server LTS:	
Windows Server with Hyper-V	
Red Hat Enterprise Linux	
SUSE Linux Enterprise Server	
VMware ESXi	
Power Supply	
Dual, hot swap, redundant PSUs	
Management integration	
Support for integration with Microsoft System Center, VMware	
vCenter and vRealize Operations Manager, BMC Software,	
ServiceNow, Red Hat Ansible Modules, and Terraform Providers	
Power & temperature	
Real-time power meter, graphing, thresholds, alerts & capping with	
historical power counters.	
Temperature monitoring & graphing:	
Pre-failure alert	
Should provide predictive failure monitoring & proactive alerts of	
actual or impending component failure for fan, power supply,	
memory, CPU, RAID, NIC, HDD	
Configuration & management:	
Real-time out-of-band hardware performance monitoring & alerting	
Agent-free monitoring, driver updates & configuration, power	
monitoring & capping, RAID management, external storage	
management, monitoring of FC, HBA & CNA & system health	
Out-of-band hardware & firmware inventory	
Zero-touch auto configuration to auto deploy a baseline server	
configuration profile	
Management (continued)	
Automated hardware configuration and Operating System deployment	

	to multiple servers			
	Zero-touch repository manager and self-updating firmware system			
	Virtual IO management / stateless computing			
	LCD panel			
	LCD / Security bezel. Should display system ID, status information			
	and system error code followed by descriptive text. LCD background			
	should light up in different colors during normal system operation &			
	error conditions.			
	HTML5 support			
	HTML5 support for virtual console & virtual media without using			
	Java or ActiveX plugins			
	Server security			
	Should have a cyber resilient architecture for a hardened server design			
	for protection, detection & recovery from cyber attacks			
	Server security			
	Should provide effective protection, reliable detection & rapid			
	recovery using:			
	Cryptographically signed firmware			
	Data at Rest Encryption (SEDs with local or external key			
	management)			
	Secure Boot			
	Secure Erase			
	Secure Erase Secured Component Verification (Hardware integrity check)			
	Silicon Root of Trust			
	System Lockdown			
	TPM 2.0 FIPS, CC-TCG certified			
	Server security			
	(continued)			
	Configuration upgrades should be only with cryptographically signed			
	firmware and software. Should protect against firmware which			
	executes before the OS boots			
	Server security			
	(continued)			
	Should provide system lockdown feature to prevent change (or "drift")			
	in system firmware image(s) & prevent malicious modification of $\tilde{x}$			
	server firmware			
	Intrusion alert			
	Intrusion alert in case chassis cover being opened			
	OS			
	Microsoft Windows Server 2022 OS / Red Hat Enterprise Linux 9.0 or			
	latest			
	Performance Benchmark			
	SPEC/ OSG Integer Speed, FP Speed, Integer Rates and FP Rates			
	benchmarks as per "spec.org" to be submitted.			
	Certifications			
	Server should have BIS, IEC60950 (UL) certification.			
	Server should have EPEAT registered in India.			
	Server OEM should have ISO9001, ISO27001 and ISO45001.			
	Warranty			
	5 years On-site comprehensive Next Business Day warranty with			
	24x7x365 remote hardware support. The warranty should reflect in the			
	support web site of the OEM.			
<b>a</b> .c			<i>a</i> .	
26	SITC of 1500TB SAN System for Video Storage for 90 days	1	Set	
	OEM PQ:			
	The Storage System OEM should be listed in the Top5 of IDC/Gartner			
	latest Report.			
	Storage Capacity:			
	Minimum 1500 TB Usable storage capacity to be offered to record all			
	CCTV cameras at 5MP resolution and 25FPS with H.265 video			
I	ser, calleras at still resolution and 25115 with 11.205 video			

		Г Т	
compression 24/7 for 90 days.			
Storage Type:			
Block Storage System with iS	CSI / FC protocol		
Controller:	1		
Dual Active hot swappable Co	ontrollers		
Cache:			
	oss both controllers. SSDs will not be		
considered as Cache.	ss both controllers. SSD's will not be		
RAID:			
<i>.</i>	ured with RAID6 protection and Global		
Hot Spares.			
HDD:			
Proposed Storage System	should be configured using suitable		
4TB/8TB/12TB/16TB/20TB/2	22TB 7200 RPM SATA/ SAS drives.		
Scalability:			
	be scalable to meet capacity and		
	g multiple Storage Arrays of same type.		
Host Connectivity per Control			
	uum 4 ports 32Gbps FC per controller.		
Backend Connectivity:			
12Gbps SAS			
Total Aggregate Storage Band			
Proposed Storage Solution sh	nould ensure a minimum total aggregate		
bandwidth as defined by VM	IS and camera OEM on a 90% Write &		
	. Storage OEM must provide Storage		
	ation generated from their online sizing		
tool.	anon generates nom men onne onng		
Storage Software Licenses:			
	licenses should be previded for entire		
	e licenses should be provided for entire		
supported storage capacity of	the proposed Array.		
Storage Management:			
Web based management-			
1. HTML5			
2. Single-array intuitive eleme	ent manager		
3. Common management task			
4. Manage storage profiles, ne			
Power Supply			
Dual Redundant Power Suppl	<b>X</b> 7		
Validated Solution:	y		
	1. 1.1		
Ū.	be lab validated with at least three VMS		
	VMS software. The storage OEM has to		
	tion report which should have been		
published at least 6 months be	fore the bid submission.		
Warranty:			
	ive Next Business Day warranty with		
24x7x365 remote hardware su	apport. The warranty should reflect in the		
support web site of the OEM.	-		
SAN Switch 24/48 Port:			
Switch Architecture:			
	should have 1U form factor with upto 48		
Nos. of 32Gbps Ports			
Fiber Channel Ports:			
	wood with min 24 - 22Char EC Darts		
-	gured with min 24 x 32Gbps FC Ports on		
day one			
Autosensing capabilities:			
4/8/16/32-Gb/s autosensing v	with 32Gb/s of dedicated bandwidth per		
port	-		
Virtual SANs:			
Up to 80 VSAINS per fabric			
Up to 80 VSANs per fabric Switch Core			
Up to 80 VSANs per fabric Switch Core Non-blocking			

	Classes of Service			
	Class 2, 3 and F			
	Fiber Channel Port Type			
	Standard: E, F and B			
	Enhanced: SD, ST and TE			
	Network Security:			
	• Fiber Channel Security Protocol (FC-SP) switch-to-switch			
	authentication			
	• FC-SP host-to-switch authentication			
	• Role-based access control (RBAC) using RADIUS, TACACS+, or			
	LDAP authentication, authorization, and accounting (AAA) functions			
	• Secure FTP (SFTP)			
	• Secure Shell Protocol Version 2 (SSHv2)			
	• Simple Network Management Protocol Version 3 (SNMPv3)			
	implementing Advanced Encryption Standard (AES)			
	• Secure Boot and Anti-counterfeit technology			
	Management and Management Access:			
	Data Center Network Manager (DCNM)			
	Management access through two out-of-band 10/100/1000 Mb/s			
	Ethernet ports			
	Power Supply:			
	Should have hot swappable redundant Power Supplies and fans			
	Cables:			
	5M LC-LC Multimode Optical FC cables should be provided			
	Warranty:			
	5 years On-site comprehensive Next Business Day warranty with			
	24x7x365 remote hardware support. The warranty should reflect in the			
	support web site of the OEM.			
07	SITC of Viles Management Surten Service	1	Maa	
27	SITC of Video Management System Server.	1	Nos.	
	Market position			
	The OEM for the proposed server must be in one of the top three			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s.			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications.			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications. Network Ports			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications. Network Ports 2x 10G SFP+ Ports			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications. Network Ports 2x 10G SFP+ Ports 2x 32G FC ports HBA			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications. Network Ports 2x 10G SFP+ Ports 2x 32G FC ports HBA I/O slots			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications. Network Ports 2x 10G SFP+ Ports 2x 32G FC ports HBA I/O slots Up to 2 PCIe Slots			
	The OEM for the proposed server must be in one of the top three server vendors (by market share revenue in IDC) in any of the previous 2 quarters Chipset Intel® C620 series chipset Form Factor Max. 1U rack mounted with OEM sliding rails Configured CPU 3rd Generation Intel Xeon Scalable processors each with min 12 cores 2.1GHz base frequency Memory slots Should have min 16 DDR4 DIMM slots. Should support upto 1TB with speeds 3200 MT/s. Memory configured Min 16 GB DDR4, Dual Rank Disks supported Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) in front bay Or upto 4 x 3.5-inch SAS/SATA (HDD/SSD) in front bay RAID Controller 12Gbps 8Gb cache PCIe 4.0 with RAID 0,1,5,6,10,50,60 Disks configured Min 2x 480GB SSD in RAID1 for OS and Applications. Network Ports 2x 10G SFP+ Ports 2x 32G FC ports HBA I/O slots			

• 1 3	C Dedicated Management micro-USB	
	USB 2.0	
• 1 >	x VGA	
Rear	Ports	
• 1 >	4 USB 2.0	
	x USB 3.0	
	C Dedicated Management Ethernet port	
	VGA	
	k Hypervisor support	
	nonical Ubuntu Server LTS	
	indows Server with Hyper-V	
	d Hat Enterprise Linux	
	JSE Linux Enterprise Server	
	Mware ESXi	
	er Supply	
	, hot swap, redundant PSUs	
Man	agement integration	
Supp	oort for integration with Microsoft System Center, VMware	
vCer	nter and vRealize Operations Manager, BMC Software,	
	iceNow, Red Hat Ansible Modules, and Terraform Providers	
	er & temperature	
	-time power meter, graphing, thresholds, alerts & capping with	
	rical power counters.	
	perature monitoring & graphing	
	failure alert	
	and provide predictive failure monitoring & proactive alerts of	
	al or impending component failure for fan, power supply,	
	ory, CPU, RAID, NIC, HDD	
	figuration & management	
	al-time out-of-band hardware performance monitoring & alerting	
	gent-free monitoring, driver updates & configuration, power	
	itoring & capping, RAID management, external storage	
	agement, monitoring of FC, HBA & CNA & system health	
• Ou	t-of-band hardware & firmware inventory	
• Ze	ro-touch auto configuration to auto deploy a baseline server	
confi	iguration profile	
Man	agement (continued)	
	Automated hardware configuration and Operating System	
	by ment to multiple servers	
	o-touch repository manager and self-updating firmware system	
	tual IO management / stateless computing	
	panel	
	/ Security bezel. Should display system ID, status information	
	system error code followed by descriptive text. LCD background	
	ld light up in different colors during normal system operation &	
	conditions.	
	1L5 support	
	1L5 support for virtual console & virtual media without using	
	or ActiveX plugins	
	er security	
	Id have a cyber resilient architecture for a hardened server design	
	rotection, detection & recovery from cyber attacks	
	er security	
	Ild provide effective protection, reliable detection & rapid	
	very using:	
	yptographically signed firmware	
	Data at Rest Encryption (SEDs with local or external key	
	agement)	
	cure Boot	
	cure Erase	
• Se		
• Se • Se	cured Component Verification (Hardware integrity check) licon Root of Trust	

	• System Lockdown			
	• TPM 2.0 FIPS, CC-TCG certified			
	Server security			
	(continued)			
	Configuration upgrades should be only with cryptographically signed			
	firmware and software. Should protect against firmware which			
	executes before the OS boots			
	Server security			
	(continued)			
	Should provide system lockdown feature to prevent change (or "drift")			
	in system firmware image(s) & prevent malicious modification of			
	server firmware			
	Intrusion alert			
	Intrusion alert in case chassis cover being opened			
	OS			
	Microsoft Windows Server 2022 OS / Red Hat Enterprise Linux 9.0 or			
	latest			
1	Performance Benchmark			
1	SPEC/ OSG Integer Speed, FP Speed, Integer Rates and FP Rates			
1	benchmarks as per "spec.org" to be submitted.			
1	Certifications			
1	Server should have BIS, IEC60950 (UL) certification.			
	Server should have EPEAT registered in India.			
1	Server OEM should have ISO9001, ISO27001 and ISO45001.			
	Warranty			
	5 years On-site comprehensive Next Business Day warranty with			
	24x7x365 remote hardware support. The warranty should reflect in the			
	support web site of the OEM.			
ho	SITC of VMS Client Workstotion	0	Maa	
28	SITC of VMS Client Workstation.	8	Nos.	
28		8	Nos.	
28	Processor	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better	8	Nos.	
28	Processor	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor Dual monitors should be supported	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor Dual monitors should be supported Keyboard & Mouse	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor Dual monitors should be supported Keyboard & Mouse Wired Keyboard & Mouse	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor Dual monitors should be supported Keyboard & Mouse Wired Keyboard & Mouse Form Factor	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor Dual monitors should be supported Keyboard & Mouse Wired Keyboard & Mouse	8	Nos.	
28	Processor Intel Core i5 13th Gen, 4 Core, base 2.5GHz or better RAM 32 GB DDR4 HDD 500 GB SSD Chipset Intel W680 Graphic Card 1x Nvidia T1000 8GB Graphics Network 1G Ethernet Expansion Slots 1 half height PCIe x16 Gen4; 1 half height PCIe x4 Gen 3 I/O Ports 1 – USB 3.2 Gen 2 Type C 4 – USB 3.2 Gen 1/2 1 – Universal Audio Port 1 – Audio Line OUT / IN PSU 92% efficient (80 Plus Platinum) PSU OS Windows 11 Pro Monitor Dual monitors should be supported Keyboard & Mouse Wired Keyboard & Mouse Form Factor	8	Nos.	

	Trusted Platform Module (TPM 2.0), Chassis Intrusion switch,			
	Setup/BIOS Password			
	Certification			
	BIS, Energy Star			
	Warranty			
	5 years On-site comprehensive Next Business Day warranty with			
	24x7x365 remote hardware support. The warranty should reflect in the			
	support web site of the OEM.			
29	SITC of 32" full HD LED Screen for Workstation	8	Nos.	
	Diagonal Size			
	32			
	Panel Type			
	Edge LED BLU			
	Resolution			
	FHD (1920 x 1080)			
	Brightness			
	400nit			
	Panel Technology			
	VA			
	Contrast Ratio			
	4000:01:00			
	Viewing Angle(H/V)			
	178:178			
	Response Time			
	8ms			
	Display Colors			
	1.07 Billion			
	Color Gamut			
	72%			
	Dynamic C/R			
	MEGA			
	Audio			
	Built in Speaker $(10W + 10W)$			
	INPUT Type			
	HDMI 2.0 X 2,			
	USB 2.0 x 1, Audio Input X 1			
	OUTPUT Type			
	Stereo Mini Jack, HDMI X 1			
	Duty Cycle			
	24 x 7			
	Special features			
	Anti Glare/ Haze 2%, Temperature Sensor, Pivot Display, IP5x			
	Rating, Wireless Mirrioring, 8GB internal memory			
	Logo			
	Should have Customized Logo when no signal is active			
	File support			
	Direct viewing of PPT, Word, PDF, Images and video from pen drive			
	Remote Controlling of device			
	Laptop / Desktop Should be controlled remotely by external Keyboard			
	and mouse through display			
	EXTERNAL CONTROL			
	RS232C(in) thru stereo jack, RJ45			
	Power Consumption			
	50 Si il Mala D			
	Standby Mode Power			
	less than 0.5W			
	VESA Mount			
	200*200mm			
	Operating Temperature			

			1	
	0°C∼ 40°C			
	Humidity			
	10~80%			
	Certificates			
	CE, FCC, UL, BIS			
30	SITC of 55" Video Well (2x2 Metrix) with controller	1	Sets	
50	SITC of 55'' Video Wall (2x2 Matrix) with controller	1	Sets	
	Display wall			
	It shall be made up of multiple LCD modules stacked up in 2 <sup>®</sup> rows			
	and 2( C) columns to achieve a video wall			
	OEM			
	The LCD video wall as well as the Controller should be from the same			
	OEM			
	Panel			
	55 inch Xtra Narrow Bezel			
	Bezel			
	1.8mm or lower			
	Back Light type			
	LED			
	Resolution			
	Full HD 1920 x 1080, professional-grade display			
	Display Colors			
	1.07 billion			
	Display Mode			
	Direct LED Backlight			
	Brightness (Typ.)			
	500 nits			
	Contrast Ratio (Typ.)			
	2000:1			
	Inputs			
	1x Analog RGB (D-Sub) 1x Digital DVI-D 2x HDMI 1x USB 3x			
	BNC- Component (YPbPr) 1x BNC-Composite (shared with			
	component) 1x DP 1x OPS Slot 1x Audio-In (RCA L/R) 1x Stereo			
	mini jack			
	Output			
	1x DVI / DP 1x Audio-Out 1x Speaker Out			
	Control			
	1x RS 232 In 1x RS 232 Out 1x RJ45			
	Power Control			
	AC Power ON/OFF Switch			
	Internal Speaker			
	10W x 10W			
	AC Power Input Range			
	100~240VAC, 50/60Hz			
	Power Consumption			
	Normal Mode: <150W Standby Mode: <0.5W			
	Dimensions (W x H x D)			
	1211.4 x 682.2 x 98.5 mm(@Vesa Mount)/ 106.9mm (@ Handle)			
	Operating Temperature			
	$5^{\circ}C \sim 40^{\circ}C$			
	Storage Temperature			
	-20°C $\sim$ 60°C Operating / Storage Humidity			
	Operating / Storage Humidity			
	10% ~ 90%, non-condensing			
	Operating Life			
	>50,000 hours			
	The Controller should be able to make the 4 cubes behave as one			
	logical area. It should be possible to display any or all the inputs on			
	the video wall in any desired configuration.			
				1

	Τ	Γ
OEM		
The LCD video wall as well as the Controller should be from the same	<b>x</b>	
OEM		
Architecture		
Should be based on PC architecture		
Operating System		
Windows 7 or higher -64 bit		
RAM		
4 GB or higher		
Client		
4 client licenses to be provided to control from client workstations		
HDD		
500 GB or higher		
Power Supply		
Single/Dual Redundant Power Supply		
Outputs		
15 DP/DVI outputs to the cubes		
Inputs		
4 HD inputs		
Wall Management Software		
Software to be provided to manage the layout on the display		
Layout Management		
All the Layouts can be scheduled as per user convenience. Software		
should support auto launch of Layouts according to specified time event by user. It should be possible to create offline layouts		
Log File		
•		
Software should support user log file management Live View		
The software GUI should be able to show the live view of all the		
sources on the browser		
Region Management		
System software should able to manage Videowall region into		
multiple regions as per user requirements.	,	
Caruosel		
User should be able to see multiple signal source in one window with	n	
specified time interval and with user defined sequence.		
Ipad/Android control		
User should be able to control complete system through IPAD and	1	
Android system over Wi-Fi		
Scenarios		
Software should able to Save and Load desktop layouts from Local o	r	
remote machines		
Layout Scheduler		
All the Layouts can be scheduled as per user convenience		
Software should support auto launch of Layouts according to		
specified time or event by user		
Layout Preview		
Software should support layout preview option		
Launch Application		
Software should be able to support		
Integration with 3rd party devices System should offer interface to enable, control from 3rd party device		
System should offer interface to enable control from 3rd party device like Creston, AMX etc.	, ,	
Live Preview		
Software should able to provide live preview of videowall		
Work space allocation		
	4	
AVSIEDD SHOULD DROVIDE THEODORUDAL TO THE COMMUNICIPOTOR TO dotting on	4	
System should provide functionality to the administrator to define and allocate work space for a particular broadcaster or a group o broadcasters when working on a Video wall		

		I	(	
	Software should offer 4 levels of Authentication (User accounts, Permissions for functionality & Roles etc). Offline Layouts			
	It should be possible to create offline layouts User friendly			
	Software should be user friendly Ticker			
	Ticker message can be positioned anywhere on the display wall. Inside the ticker window, font size, colour and background can be set			
	Ticker Type Software should able to prepare various kinds of tickers: text ticker, RSS ticker, transparent and time ticker			
	SNTP System should support SNTP function Protection			
	System should have Hardware License key to protect the software from unauthorized access. Source Carousel:			
	User can set multiple sources that can change sequence after some time interval without changing the layout.			
	Region management Admin can assign Videowall workspace to user based on pixel map Snap sensitivity			
	Enables the magnetic behaviour to fit the sources automatically for easy alignment on the wall Scalable GUI			
	Scalable GUI to scale to any size of Videowall screen. Scheduler			
	User can schedule the layout on specific date & time, weekday, weekend, start & end date Source positioning			
	User can position the source input on Videowall with single click IPAD Management			
	App for control should be available on App Store Transparency Controller should support transparent image and SVG content			
	Perspective sharing Should support sharing of perspectives with operator workstation and video wall.			
31	SITC of 86'' Interactive Panel Screen	2	Nos.	
	Sign in directly from QR Code on Interactive Whiteboard Software and link Cloud Storages (Google Drive, Microsoft One Drive, Box or Drop Box) Download results as Excel sheets Auto Grading of answers Create Online Quiz with Time Limit from Whiteboard Software Text to Speech inbuilt in Whiteboard Software (Male or Female Voice) Handwriting Recognition Drag and Drop YouTube videos, Direct			
	images from google search Wireless Casting on IFP from Mobile & Laptop Artificial Intelligence Pen Screen Recording Live webcast directly from Interactive Whiteboard Software to YouTube and Facebook, Same Whiteboard Software for Windows, Android & Browser Entity Management & Device Manager to Manage IFP			
	remotely without LAN, also to share Content & Broadcast Messages Remotely onto IFPs. Software FeaturesCertifications: BIS, TUV for Flicker Free & Low Blue Light, CB Power Consumption: 160W or Less Light Sensor : Yes SPEAKERS: 16W x 2 Type C: x1 (PD65W +			
	DP1.2 + Data USB2.0 + 10M/100M sharing) Type B: x2, for touch Type A: USB3.0 x4 (Front x2, Rear x2), USB2.0 x1 RJ45: x2 SPDIF: x1 Audio Out: 3.5mm x1 OPS Slot: 1 RS232: x1 VGA : 1 Audio In: PC audio in (3.5 mm)*1 HDMI In: Minimum 3 Touch Point: 40 points			
	or Higher Type/ Tech: IR Recognition/ P-Cap Storage: 128 GB or			

	More RAM: 8GB DDR4 or More Processor: Quad Core ARM Cortex A55 x 4 or Higher Android 13.0 Orientation: Landscape Thickness: 4mm Surface Treatment: Hardness: 9H or Higher Backlight Life: Minimum 30,000 hrs of Higher Viewing Angles: H = 178, V = 178 typ. Response Time: 8ms or Better Contrast Ratio: 5000:1 (DCR) Brightness: Minimum 450 Nits or Higher Colours: 1.07 Billion Colors Native Resolution: 4K60hz Aspect Ratio: 16:9 Display Area (mm): Minimum 1913.04(H) x 1083.96 (V) Type/Tech: IPS TypePanel Size: 86" or Higher Interactive Flat Panel.		
32	SITC of Smart Cooling Rack (7kW) with 42U in height with 800X1200 for Network/ Server application.	1	
	The specification includes Integrated, Modular, Intelligent data center infrastructure of self-contained, standalone system which shall be design, engineering, manufacture, assembly & testing at manufacturer's factory and delivery at site with proper installation & commissioning with testing for the proposed data center infrastructure The detail specifications of the data center infrastructure shall be in adherence to data center guidelines and best practices to ensure high availability of data operation. The Intelligent Data Center Infrastructure shall basically include Self- Contained 42U Rack, Rack Mount Air Conditioner, Rack Mount UPS in N+N configuration, Rack PDU in N+N configuration, Environment Monitoring System, Electrical Distribution Panel The Data Center infrastructure shall provide many functionality and some of the key functionalities are cold aisle containment on front side & hot aisle containment on rear side, thermal insulation in cold aisle, remote monitoring & management and single point of service. Intelligent Data Center Infrastructure having minimum 7 critical equipment out of Rack, UPS, Cooling, PDU, Electrical DB Panel and Monitoring system along with temperature & humidity sensor, IP Camera shall be from same OEM. Rack & Accessories– Rack Dimensions		
	2000 (Height) x 800 (Width) x 1200 (Depth) in mm. Rack mounting 19" mounting type.		
	Rack U Space 42U with additional 8U space vertically on front side.		
	Standards Rack shall be designed as per DIN 41494, IEC 60297 & EIA-310-D standards. Rack Design		
	Rack design shall be sturdy frame section of welded construction of GI material. Rack Frame		
	Rack frame shall be scalable and modular with load carrying capacity of 1400 Kg on enclosure frame and 1000 Kg on 19" mounting angles. Base Frame		
	Base frame shall be provided with 100 mm height for cabling & air conditioning piping. Cutouts for cable entry		
	Cut outs with rubber grommet on top and bottom plate for cable entry. Cable entry Cable entry provision from top & bottom both through Neoprene		
	grommet. Vertical cable manager Vertical cable manager on both LHS & RHS on rear side.		
	Horizontal cable manager Horizontal cable manager (04 nos.) to be provided on front side. Front Door		

Front Glass door for complete 42U height visibility and rear plane		
split door.		
Insulation		
Thermally insulated cold aisle containment.		
Blanking Panel		
Complete blanking panels (2U & 1U) of sheet metal to prevent air		
mixing.		
EM locks		
Each door shall have 02 nos. of EM (Electromagnetic) lock and 01 no.		
gas spring to allow auto door opening through access control.		
Rack Mount Air Conditioning System		
Rack Mount Cooling		
The system should include rack mount air conditioner of 7 kW $-$ 01		
no. in each rack to cater the IT load of up to 7 kW. One rack mount		
air-conditioned should not occupy more than 8U space.		
Cooling Capacity		
7 kW (2Tr)		
Mounting & U Space		
19" rack mount type and not more than 8 U space.		
Duty Operation		
24/7 with 100 % duty cycle.		
Indoor & Outdoor unit		
Cooling unit shall be of Split type indoor & outdoor unit design.		
Compressor		
Industrial grade Rotary compressor for high reliability.		
Evaporator Fan		
Radial flow evaporator fan for high energy efficiency.		
Voltage Protection		
Under voltage & over voltage safety protection.		
HP & LP Protection		
High Pressure & Low Pressure protection for safe operation.		
Insulation		
Thermal insulation on indoor unit.		
Refrigerant		
Environment friendly R410A refrigerant		
Breaker		
Individual breaker for indoor & outdoor unit.		
Outdoor Unit		
Suitable to work on high ambient 48degC to 52degC		
Drain Tray		
Long life tray material SS304		
Connection for indoor		
Flexible hose SS304 use for indoor connection		
Master slave		
Master Slave logic available for combined rack		
Monitoring-		
Monitoring Configuration		
The environmental monitoring system of data center infrastructure		
shall include critical sensor like temperature & humidity, door open,		
small include critical sensor like temperature & numberly, door open, smoke detection, water leak detection which shall enable the remote		
monitoring over IP and should be able to send email alerts.		
Remote Monitoring		
Intelligent Rack based environment remote monitoring.		
Form Factor		
1U, 19" rack mount type mounting.		
Communication		
RS 485 x 2 standard Modbus Communications. RJ45 x 1:- 10/100		
Base-T, Single window for monitoring all sensors.		
Notifications		
Real time notification providing faster management response.		
SNMP		
SNMP allowing easy integration with any enterprise management		
	I I	

system.	
GUI	
Graphical interface and historical data records for more effective	
management. Protocols	
Protocols: IPv4/IPv6, FTP/SFTP/TFTP, DHCP, SMTP,	
HTTP/HTTPS, SNMP v1/v3, SNTP, syslog, Telnet/SSH, RADIUS.	
Temperature & Humidity	
Temperature & Humidity Sensor, with LCD display and RJ45	
connector.	
Digital Inputs	
Digital inputs – 4nos. for external dry/wet contact sensing.	
Analog Inputs	
Analog inputs – 2 nos. Voltage 0-10Vdc & current – 4 to 20mA	
Relay Outputs	
Relay Output $-2$ nos.	
Environmental Sensors	
Temperature & Humidity sensor, Door opening sensor, Water leak	
detection sensor, Smoke detection sensor. Alarm device with LED flash and sound option.	
Server Health Monitoring	
Server's health monitoring using IPMI protocol on a single centralized	
dashboard.	
Beacon Alerts	
Beacon should be blow for personalized critical alarms and warnings	
Electrical Power Distribution Unit	
Configuration & U Space	
19" rack mountable Power Distribution Unit with essential breakers &	
sockets to be mounted inside the casing and shall not be more than 2U	
space.	
Main Incomer	
63 Amp 4 Pole MCB with suitable provision of terminal blocks for	
connections. Main Incomer Cable	
Integrated PVC cable shall be provided with 63 Amp industrial plug &	
socket for safe & secure connection.	
UPS Input	
2 nos. of 40 Amp SP MCB for UPS Supply.	
Cooling Input	
2 nos. of 32 Amp DP MCB for Cooling Unit Supply.	
Connectors	
All input supply cables from EPDU unit to equipment are connected	
with suitable connector (male - female) with suitable rating.	
Spares MCB	
Provision for 1 nos. UPS, 1 nos. of cooling unit inputs breakers shall	
be provided to cater the additional of rack & cooling in future.	
AC Socket	
Provision of AC socket, 5 Amp (on rear side of EPDU) to allow	
connection of LED or spare device.	
Pre-tested The Electrical Power Distribution Unit shall be, pre-assembled and	
tested in manufacturer's factory to ensure reliable operation while	
execution	
Rack Power Distribution Unit (Socket Strip/PDU)	
PDU Configuration	
Each rack shall have two vertical PDU's having total 24 sockets in	
each PDU, IEC C13 x 14 nos. C-19 x 04 nos. & 5/15 Amp x 06 nos.	
each PDU, IEC C13 x 14 nos. C-19 x 04 nos. & 5/15 Amp x 06 nos. Indian Sockets with 32 Amp "D" curve MCB with safety guard &	
each PDU, IEC C13 x 14 nos. C-19 x 04 nos. & 5/15 Amp x 06 nos. Indian Sockets with 32 Amp "D" curve MCB with safety guard & power indicator	
Indian Sockets with 32 Amp "D" curve MCB with safety guard &	

	of IEC60309 32 Amp to ensure fast & reliable connection of UPS			
	O/P power. Biometric Based Access Control System:			
	Configuration			
	The Integrated data center infrastructure shall have inbuilt biometric			
	(finger print) based access control system to operate the secure access of both front & rear door of rack.			
	Biometric / Pin / Card:			
	The biometric access control shall also have feature of pin & card			
	authorization as additional option of accessing the doors.			
	Auto Door Opening:			
	The front & rear door of rack shall open automatically through access control in case of emergency during rise in temperature (air			
	conditioner or mains supply failure) beyond threshold pre-settable			
	value.			
	Reader cum Controller:			
	The access control system shall of standalone type of reader cum controller.			
	Communication:			
	Wi-Fi, Ethernet, RS485, USB Host.			
	Display:			
	display of access control shall be of 2.4" LCD-TFT color.			
	EM locks: The EM (Electromagnetic Lock) to be provided on each front & rear			
	door (02 nos./door) and shall be connected to access control system			
	Rodent Repellent:			
	Rodent Repellent			
	Supply & Installation of 1 no. of Ultrasonic Rodent Repeller of high frequency sound. The Standalone digital Rodent Repellent shall			
	protect an enclosed area of 300 sq. ft. and have an built in transducer			
	which emits ultrasound.			
	Fire Suppression System			
	Integrated fire detection & Suppression system as per NFPA			
	guidelines. Novec 1230 gas based clean agent fire suppression system.			
	Fire system to be mounted on side panel of same server rack with			
	integrated enclosure and piping to be terminated from top of rack.			
	There should be 02 nos. of smoke detectors in cross zone mounted			
	inside the rack on top cover. There should be Abort & Release switch integrated with fire system			
	for manual action.			
	Standards			
	Manufacturer - QMS:			
	As per ISO 9001: 2015 ISO 45001 :2018			
	EMS: As per ISO 14001: 2015			
	OSHAS: As per ISO 18001: 2007			
	Quality Management System - TL 9000			
	NABL Factory calibration lab of OEM in INDIA OEM should have at least 2 valid Certified Data Center Professional			
	(CDCP) on company payroll in each Solutions, Projects & Service			
	departments			
	Warranty: Warranty 5 Year			
33	SITC of 20 KVA Online UPS with Battery backup of 120 minutes	2	Nos.	
	Capacity			
	Capacity 20 KVA (1+1 Parallel			
	Redundancy )			
	AC Input Parameters			
	AC Input Voltage 320V-480V AC Three Phase			
	520 Y -+00 Y AC THEE FHASE			

Frequency		
50 Hz +/- 10% also work on DG Set		
AC OUTPUT PARAMETERS		
Output Voltage		
220V I 230V AC Single Phase		
Technology		
IGBT-PWM with inbuilt isolation transformer		
Voltage Regulation		
+I- 1%		
Frequency		
50 HZ +/- 0.01 O/o		
Waveform		
Sinewave		
Harmonic Distortion		
Less than 3%		
Efficiency		
>94%		
Power Factor		
0.8 lagging		
Overload		
110% for 10 Minutes		
200% for 5 Cycles		
Output Distortion		
<3%		
Transient Recovery		
Within 3 Cycles		
Backup Time (Minutes)		
120 minute or higher (100ah*30nos) on Each UPS		
PROTECTION		
Battery Over Voltage		
Yes		
Battery Under Voltage		
Yes		
Output AC Over Voltage		
Yes		
Output Overload / Short Circuit		
Yes		
INDICATIONS		
Mains ON		
Yes		
Load on Batteries		
Yes		
Battery Low		
Yes		
inverter Overload		
Yes		
Load on Mains		
Yes		
Battery Boost		
Yes		
DC VOLTAGE		
360VDC		
METERING		
INTER FORMULA I		
Digital Metering Available for Output Voltage/ Battery Voltage/		
Digital Metering Available for Output Voltage/ Battery Voltage/		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc		1
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating 0 Deg. C — 50 Deg. C		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating 0 Deg. C — 50 Deg. C Storage		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating 0 Deg. C — 50 Deg. C Storage 0 Deg. C — 60 Deg. C		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating 0 Deg. C — 50 Deg. C Storage 0 Deg. C — 60 Deg. C		
Digital Metering Available for Output Voltage/ Battery Voltage/ Output Current/ Output Frequency etc AMBIENT CONDITION Operating 0 Deg. C — 50 Deg. C Storage		

r			1	
	Operating Altitude			
	upto 2000 Meter			
	Acoustic Noise			
	<60db at 1 Meter			
	Cooling			
	Forced air cooling by the internal fans			
	FEATURES			
	Hot Standby Mode			
	Yes			
	Cold start			
	Yes			
	Battery Parameter			
	Charging Current			
	minimum 10AMP			
	Battery Type			
	VRLA (Valve Regulated Lead Acid Battery), 12VDC			
	Battery Shutdown Voltage			
	10.7 V/pcs			
	Battery over voltage warning point			
	14.4V/pcs Battery over voltage Werning			
	Battery over voltage Warning			
	Comeback Voltage			
	13.7V/pcs			
	Battery low Voltage Warning point			
	11.4 V/pcs			
	Battery short protection			
	Protected by battery fuse			
	Battery Charging current			
	Charging Current should be suitable for Battery bank			
	Rack for battery			
	MS battery Rack with minimum 3 inch height from			
	ground level.			
	Charges			
	In-built with UPS with Suitable rating			
	CERTIFICATION			
	ISO 9001 / 14001 / 18001 / RoHS / CE / EMC Safety/BIS			
	Parallel Redundancy			
	Load Sharing			
	Warranty			
	Five years UPS and Battery Both should be supplied.			
34	SITC of 1.5 Ton Split AC	5	Nos.	
	Type of AC			
	Split Air conditioner (inverter type) suitable for wall mounting,			
	working on 230 volts, 50 Hz, Single Phase/Three Phase AC power			
	supply.			
	Mounting			
	Wall mounting type			
	Capacity			
	1.5 Ton / 3.0 Ton as per site requirement			
	1.5 Ton / 3.0 Ton as per site requirement Indoor Unit			
	1.5 Ton / 3.0 Ton as per site requirement			
	1.5 Ton / 3.0 Ton as per site requirement Indoor Unit			
	<ul><li>1.5 Ton / 3.0 Ton as per site requirement</li><li>Indoor Unit</li><li>Compact, light weight, sleek model with panels of durable Plastic</li></ul>			
	<ul> <li>1.5 Ton / 3.0 Ton as per site requirement</li> <li>Indoor Unit</li> <li>Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote</li> <li>Outdoor Unit</li> </ul>			
	<ul> <li>1.5 Ton / 3.0 Ton as per site requirement</li> <li>Indoor Unit</li> <li>Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote</li> <li>Outdoor Unit</li> <li>Condensing unit tube coil material should be copper</li> </ul>			
	<ul> <li>1.5 Ton / 3.0 Ton as per site requirement</li> <li>Indoor Unit</li> <li>Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote</li> <li>Outdoor Unit</li> <li>Condensing unit tube coil material should be copper</li> <li>Outdoor Unit mounting stand</li> </ul>			
	<ul> <li>1.5 Ton / 3.0 Ton as per site requirement</li> <li>Indoor Unit</li> <li>Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote</li> <li>Outdoor Unit</li> <li>Condensing unit tube coil material should be copper</li> <li>Outdoor Unit mounting stand</li> <li>Design, Supply and fixing of suitable powder coated MS /GI stands</li> </ul>			
	<ul> <li>1.5 Ton / 3.0 Ton as per site requirement</li> <li>Indoor Unit</li> <li>Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote</li> <li>Outdoor Unit</li> <li>Condensing unit tube coil material should be copper</li> <li>Outdoor Unit mounting stand</li> <li>Design, Supply and fixing of suitable powder coated MS /GI stands for outdoor unit</li> </ul>			
	<ul> <li>1.5 Ton / 3.0 Ton as per site requirement</li> <li>Indoor Unit</li> <li>Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote</li> <li>Outdoor Unit</li> <li>Condensing unit tube coil material should be copper</li> <li>Outdoor Unit mounting stand</li> <li>Design, Supply and fixing of suitable powder coated MS /GI stands</li> </ul>			

	of installation			
35	SITC of 3.0 Ton Split AC 3 phase) Type of AC Split Air conditioner (inverter type) suitable for wall mounting, working on 230 volts, 50 Hz, Single Phase/Three Phase AC power supply. Mounting Wall mounting type Capacity 1.5 Ton / 3.0 Ton as per site requirement Indoor Unit Compact, light weight, sleek model with panels of durable Plastic material along with cordless remote Outdoor Unit Condensing unit tube coil material should be copper Outdoor Unit Condensing unit tube coil material should be copper Outdoor Unit Design, Supply and fixing of suitable powder coated MS /GI stands for outdoor unit Warranty 5 years warranty for the whole AC and compressor unit from the date of installation	2	Nos.	
36	SITC of Video Processing Unit All-in-one Desktop for video processing and editing 23.5/24" 4.5K Retina Display Apple M3 processor chip with 8 core CPU (4 performance cores + 4 efficiency cores) 8 core GPU 16-core Neural Engine 512GB SSD Storage 16GB RAM 2x Thunderbolt/USB Ports Gigabit Ethernet Should be supplied with mouse and keyboard Should be preloaded with perpetually licensed Final Cut Pro software	2	Nos.	
37	Supply and Laying of 48 Core SM Fiber Cable (400 MTR)Type48 Core Armored Singlemode (9/125 $\mu$ m) Fiber optic Cable suitablefor Outdoor applicationCable6 Core Singlemode fiber optic cables armored with colored fibercores. Fiber cable is perfectly suited for both gigabit Ethernet and 10gigabit Ethernet campus and backbone applications.ApplicationThe constructions are of ECCS Tape Armored Multi Tube design withHDPE outer Jacket making it suitable for Outdoor applicationsOuter SheathHDPE Jacket / Black or YellowFiber Count12/Tube or BetterCable SpecificationsTube Color : Blue, Orange, Green, BrownCable diameter : 13.5 ± 0.5 mmCrush Resistance1000 N/100mm or BetterBend Radius20 X D (mm)		Mtrs	

1				
1	Tensile Load (max)			
[	2000 N			
	Optical Properties			
	Cladding Non-circularity : $\leq 0.7$ %			
	Cladding Diameter : $125.0 \pm 0.7 \ \mu m$			
	Core/cladding Concentricity Error : $\leq 0.5 \ \mu m$			
	Primary Coating Diameter : $250 \pm 15 \mu m$			
	Attenuation Co-efficient			
	1310 Wavelength (nm) : $\leq 0.39 \text{ dB/km}$			
	1550 Wavelength (nm) : $\leq 0.24 \text{ dB/km}$			
	Chromatic Dispersion :			
	1285 - 1330 Wavelength (nm) : $\leq$ 3.5 ps/nm.km (Min)			
	1550 Wavelength (nm) : $\leq$ 18 ps/nm.km (Min)			
	Temperature Range			
	Operating Temperature Range: -30°C to +70 °C			
	Compliance Standard			
	Complies to IEC 60793, IEC 60794 1			
	RoHS Compliant			
	Compliant as per RoHS Directive 2011/65/EU			
	OEM Eligibility OEM should have manufacturing unit in India for at-least 5 years or			
	more. Should have Indian Technical Support Centre, Warehouse and			
	RMA center in India.			
	RWIA center in maia.			
	All passive products from single OEM & should be manufactured as			
	per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel			
	performance.			
	OEM should be a member of TIA organization.			
	OLW should be a member of TTA organization.			
38	SITC of 48 Port LIU (fully loaded)	4	Nos	
	Туре			
1	48 Port Single Mode Full Loaded LIU			
	LIU			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning.			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB Return Loss			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB Return Loss >= 55 dB			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB Return Loss >= 55 dB Operating Temperature			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB Return Loss >= 55 dB Operating Temperature -10 °C to $+ 60$ °C			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB Return Loss >= 55 dB Operating Temperature -10 °C to + 60 °C RoHS Compliant			
	LIU Standard 19" Rack mountable with 48 Port LC Fiber Pigtails and accessories for installation and commissioning. Application Ethernet, Fiber Channel, ATM, LAN, MAN, WAN, Data communication, Data centers, premise installations and Indoor Application Fiber Count 48 Loaded with Pigtails LC - Simplex, Singlemode OS2, Min. 2 Mtr, 0.9mm Tight Buffer Material Steel Loaded with Couplers LC Duplex Couplers Accessories Loaded in Panel 12/24/48 Fiber Splice trays should loaded in LIU with Pigtails, Splice Tubes, Min. 2 x PG13.5 Gland, Cable Ties and Velcro Straps Optical Characteristics for Loaded Pigtail Insertion Loss <= 0.3 dB Return Loss >= 55 dB Operating Temperature -10 °C to $+ 60$ °C			

39	OEM Eligibility OEM should have manufacturing unit in India for at-least 5 years or more. Should have Indian Technical Support Centre, Warehouse and RMA center in India. All passive products from single OEM & should be manufactured as per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel performance. OEM should be a member of TIA organization. SITC of Fiber Patch cord (Duplex) (3 Mtr)	32	Nos	
	Same Specification as mentioned in Sr.No.7			
40	Supply and Laying of 33/40 mm HDPE Pipe Supply & Laying of Standard make 33/40 mm HDPE Pipe	600	Mtrs	
41	SITC of CAT6 Shielded Patch Cord (2 Mtr)         Features         Cat6 Shielded Patch Cord         26 AWG or Better with Stranded Bare Copper Conductors         No. of Pairs         4 Pairs         Jacket         LSZH         Environmental Characteristics         Operating Temperature         -10 °C to +60 °C         Length         2/3/5 Mtr.         OEM Eligibility         OEM should have manufacturing unit in India for at-least 5 years or more. Should have Indian Technical Support Centre, Warehouse and RMA center in India.         All passive products from single OEM & should be manufactured as per latest TIA/EIA or ISO/ IEC standard and have 25 years of channel performance.         OEM should be a member of TIA organization.	20	Nos	
42	SITC of Aluminium Partitioning with 12 mm thick particle board & 12 mm thick Glass Providing and fixing of Powder coated Aluminium work for doors and Partitions walls with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners for fixing of vertical sections in the ceiling to support the frame including necessary filling up of gaps at junctions, top, bottom and sides with required PVC/ neoprene felt, etc. Aluminium sections shall be smooth, rust free straight, metered and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass/ stainless steel screws all complete with powder coated aluminium section of 63.5mm X38.10mm (sectional weight of the Aluminium section should not be less than 4 Kg. for the sectional length of 15') with 12 mm thick both side pre-laminated flat pressed three layer of graded wood particle board conforming to IS:12823 grade I type II in panelling of partition walls or with float glass panes of 12 mm thickness (Modi, saint Gobain or equivalent) panelling of required height complete in all respect including all	1	Nos	

1				
	hardware fittings Total Room Size : 2 Rooms of 20'x 25' Total Four Partitions of : 1. 10' x 8' (Chairperson's Room/with 2 Aluminium half Glass Doors) 2. 10'x 17' (Meeting Room/with 1 Aluminium half Glass Door) 3. 10'x25' (Staff Room/with 1 Aluminium half Glass Door) 4. 12'x20' (Data Central & Control Room/with 1 Aluminium half Glass Door)			
43	SITC of Short wave length laser-Based Absolute Smoke Detection system with all accessories as required.	1	Nos	
	SITC of Short wave length laser-Based Absolute Smoke Detection system with 2 pipe inlets, 2000 sq m area coverage; Wide sensitivity range - 0.05%–6.56% obs/m; built in 2 alarm levels ; High efficiency aspirator; Clean air barrier optics protection; Inbuilt dual stage filtration with memory and live Monitoring of filter; 2 Nos of inbuilt potential free relay outputs, Contacts rated 2 A @ 30 VDC (Resistive); supports Linear pipe length of 220 m and branched pipe up to 392 m per detector; supports minimum 40 Nos of sampling points in very early warning configuration (Class A design with transport time less than 60 seconds for earliest possible smoke detection & alarm), Auto Learn for automatic setup of alarm threshold, Referencing & Event log; 2100 (Built in memory without need of external memory storage card) and the smoke detection chamber shall be sealed maintenance free with duel detection technology (Laser light scattering combined with CMOS imaging for highly reliable smoke readings). The cost will also include UL & FM listed power supply unit from the same OEM manufacturer as the ASD detector with 230V AC to 24 VDC 2 amps with 24 hour battery backup in normal condition and 30 minutes in alarm condition etc complete as per requirement. ASD models with spot type detectors installed inside a closed box fitted with fan ((Point in BOX) shall not be treated equivalent. Approvals- UL, FM, ULC & CSFM (All required mandatory) 24V DC operated conventional alarm sounder with built in strobe for pre alarm & alarm annunciation inside the room being protected by ASD detector (tone for pre-alarm shall be different from alarm). 25 mm dia (OD) Fire retardant (FR) CPVC pipe with nozzle and hole in pipe etc complete as per specifications and requirements including pipe supporting structure from ceiling/truss/ above false ceiling etc. Capillary Sampling Points - Flush type with end Cap for large bore pipes, 25 mm etc complete as per requirements (needed only if false ceiling is present). SITC of Complete System of Aspiration a			
44	SITC of Fire Suppression System with all Pipes, Nozzle, cable and other accessories.	1	Nos	
	The system shall UL/FM/ ULC certified technology that allows for a higher capacity to overcome frictional losses and allow for higher distances of the agent flow and also allow for better agent. Suppression system shall be provided in all the areas specified in National Building Code and all other applicable code including any local by-laws. The suppression system shall provide for high-speed release of Gas based on the concept of total Flooding protection for enclosed areas. A Uniform extinguishing concentration shall be as applicable and approved by the manufacturer/NFPA 2001/UL/ULC/FM of the gases for 70 deg F, or higher as recommended by the system / agent			

		1		1
	manufacturer.			
	The system discharge time shall be 10 seconds or less, in accordance			
	with applicable NFPA standards.			
	Sub floor and the ceiling void to be included in the protected volume.			
	The system to be supplied by the bidder must satisfy the various and			
	all			
	requirements of the Authority having Jurisdiction over the location of			
	the protected area and must be in accordance with the OEM's product			
	design criteria.			
	The discharge nozzles shall be located in the protected volume in			
	compliance to the limitation with regard to the spacing, floor and			
	ceiling covering etc. The nozzle locations shall be such that the			
	uniform design concentration will be established in all parts of the			
	protected volumes. The final number of the discharge nozzles shall be			
	according to the OEM's patented and certified software, which shall			
	also be approved by third party inspectors and certifiers such as UL / $T_{\rm M}$			
	FM/ULC.			
	The Gas shall be stored in seamless storage containers complying with			
	the SMPV Rules set out by Chief Controller of Explosives, Nagpur,			
	India. The Bidder shall be required to produce a NOC for the Chief			
	Controller of			
	Explosives, Nagpur for the storage containers against the cylinder			
	identification numbers punched on them.			
	The Gas shall be discharged through the operation of an Electric			
	(solenoid) operated device or pneumatically operated device, which			
	releases the agent through a differential pressure valve.			
	The Gas discharge shall be activated by an output directly from the			
	Gas			
	Release control panel, which will activate the solenoid valve. The Gas			
	agent is stored in the container as a liquid.			
	The manual release device fitted on the Gas Cylinder(s) shall be of a			
	manual lever type and a faceplate with clear instruction of how to			
	mechanically activate the system. In all cases, gas cylinders shall be			
	fitted with a manual mechanical operating facility that requires two-			
	action actuation to prevent accidental actuation.			
	Brass Discharge nozzles shall be used to disperse the Clean gas agent.			
	The nozzles shall be Brass with female threads and available in sizes			
	as			
	advised by the OEM system manufacturer. Each size shall come in			
	two styles: 180° and 360° dispersion patterns. The nozzles provided			
	shall be UL listed/ULC approved.			
	All the Major components of the Gas suppression system such as the			
	Cylinder, Valves and releasing devices, nozzles and all accessories			
	shall be supplied by one single manufacturer under the same brand			
	name.			
	Manual Gas Discharge stations and Manual Abort Stations, in			
	conformance to the requirements put forth in NFPA 2001 shall be			
	provided.			
	r			
	Acceptance Tests: Acceptance for the System installation, inclusive of the piping and requisite cabling shall be strictly in accordance with the			
	the piping and requisite cabling shall be strictly in accordance with the installation accordance guidalings as put forth in the NERA 2001			
	installation acceptance guidelines as put forth in the NFPA 2001.			
	The system should be designed for the room size of $40x22$ feet.			
45	SITC of 625 KVA Three whose Silent DC Set along with the	1	Nos	
45	SITC of 62.5 KVA Three phase Silent DG Set along with other		Nos	
	accessories i.e. Manual Control Panel with GPRS Enable, Fuel			
	tank, Battery with leads.			
	Reputed brand (62.5 KVA 3 Phase ) Diesel Engine, Water Cooled, at			
	1500 RPM. The engine should be provided with electrical starting			
	arrangement & should give the electrical output of 62.5 KVA. The			
1	engine should be complete with: Starter motor, Battery charging			

	alternator, Dry type air cleaner, Mico fuel pump, A1 class governing, Flywheel with flywheel housing, Residential silencer, First fill of lube oil, Engine protections: Low lube oil pressure & High Water temperature. The alternator should be of Standard make, Three-phase, 50 cycles, self regulated, self-excited, screen protected, 62.5 KVA alternator of rated capacity at 0.8 power factor. The alternator should conform to relevant BS/IS standard. The Control Panel should be a steel construction Control panel, dust & vermin proof comprising of MCB/MCCB, CTs for metering, Voltmeter, Ammeter, Frequency meter, Indications, Fuses etc. Windows for control panel should be with glass/acrylic and sealed with neoprene rubber gasket. The canopies should be soundproof using the best quality. Canopy should be four sided with 2.5 mm Thick CRCA sheet Base. The Doors & Roof should be fabricated from MS CRCA of adequate thickness with airtight EPDM foam gasket. MS/Zinc die cast hinges must be provided. The canopy should be equipped with a forced air circulation fan of reputed make. The canopy will have slope on the top surface so that rain water can drain easily. The insulation material should be PU Foam. The material should be fire retardant. Air inlet and outlet louvers, with special sound reduction dampers for proper air ventilation should be modular, bolted construction and should have access from all sides. All fasteners should be with washers. The fasteners should be SS/Zinc coated MS. I no. lamp with ON/OFF switch and socket inside the canopy should be provided. The Earthing arrangements for DG set / Canopy should be homogenous.			
	All metal surfaces should be thoroughly treated with degreasing, de- rusting and phosphating. The finish must be suitable for outdoor use. The maximum noise level permitted during full load should be 75 dB (A), measured at 1 meter distance from the edge of canopy. The product must be certified by CPCB as per latest sound norms. The fuel tank should be removable type. The tank should be fabricated from CRCA / HR pickled/ MS, minimum 2 mm thick sheet. The tank capacity should be (62.5KVA, 3 Phase) 100 Ltr. The maximum permissible temperature rise above the ambient should be 5oC to 7oC. The anti vibration pads must be provided below diesel engine and alternator. The canopy should have provision of emergency push button which should be housed in a protective enclosure with a glass front.			
46	SITC of 5MP Outdoor IR PTZ Camera Outdoor PTZ Dome Camera Supply, Installation, Testing & Commissioning of Outdoor 1/2.8 inch CMOS 5MP or better, IR PTZ Camera, Effective pixels 2592 x 1944, 5MP, 25 fps; 30x Optical Zoom & 16x Digital Zoom, tripple stream; IR distance: 150 meter; Lens type: Wide 5 to 6mm, Tele 150 to - 180mm Motorized Auto focus zoom lens; Memory card slot: Min 256GB support. Minimum Illumination- Sense up on- Color: 0.005 lux color, B/W: 0 lux IR On, WDR 120dB, Edge Video Analysis Video Motion Detection, Intrusion, Lioter, Counter & Tampering, 3DNR, BLC, HLC, White Balance, EIS, Defog, Mechanical switchable IR filter (Auto ICR), Pan Range 360° continuous, Tilt Range -10° to 90°, Pan/Tilt Modes - Pan: 0.1°/s - 180°/s; Tilt: 0.1°/s - 90°/s, Presets 256, Preset Accuracy 0.25 Deg, 16 Patrol & Tours, Alarm I/O - 2In/2Out,	10	Nos	

	2-Way Audio- 1/1 Channel In/Out, 256GB Memory card slot, 4 individually configurable privacy masks, 8 Region of Interest, POE+ (802.3 at) or 24VAC 3A for indoor/Outdoor application, IP66/67, IK 10 ; Certifications: ONVIF Profile S/G/T compliant, UL/CSA 62368- 1, CE (EN 50130-4), FCC Part 15, EN 55032, RoHS (EN63000) & NDAA Section 889 compliant.		
47	Manpower (Skilled) for 60 months AI Engineer (B.E./B.Tech) with 2 years experience in relevant domain: 02 Network Engineer (B.E./B.Tech) with 2 years experience in relevant domain: 01 Network Operator (diploma or equivalent in technical domain) with 2 years experience in relevant domain: 04 Field operator (Graduate) with 2 years experience in relevant domain: 01	Nos.	

## ESSENTIAL GENERAL INSTRUCTIONS FOR SPECIFICATION

- 1. All the bidders are required to quote the rate for all the items in the BOQ. The L1 will be determined by taking into consideration the rate quoted for all the items together.
- 2. The Institute may or may not procure all these items together. The Bidder shall not have any right in this regard.
- 3. It is the sole responsibility of the bidder to quote the rate for all the items as per BOQ. If it is found after opening of financial bid that any technically qualified bidder have not quoted a rate for all the items as per BOQ, their bid shall not be considered for financial evaluation. No correspondence shall be entertained in this regard.
- 4. Pre-installation site preparation requirements to be indicated and specified along with the bid.
- 5. Installation and training should be provided free of cost to the Institute fraternity.
- 6. The complete installation and commissioning must be carried out by the supplier at the destination in our premises. Machine package shall be opened by Bidder in presence of an IIT(BHU) representative.
- 7. Adherence to all specifications is compulsory.
- 8. Only the bid of the firms quoting the rate for "all the Items together mentioned in the price bid" will be taken into consideration for evaluation.
- 9. If necessary, Bidders might be asked to provide proof for Country of Origin or Country of Manufacturing.
- 10. Must have certified engineers in India. Contact details must be shared.
- 11. Must be able to update software remotely and must have digital advanced training as per requirement
- 12. Scanned Copy of Certificate/Undertaking indicating that the rates quoted for supply of said items by the firm are not higher than the rate of item supplied by the firm in any other Government Organization/Institutions/PSU etc.
- 13. The quoted model's technical specifications and brochure should be available on the website.
- 14. Catalogue must be enclosed containing details of equipment.
- 15. Services will be given free of cost during the warranty period.
- 16. The bidding company/firm are required to self-attest the scanned copies of documents, along with the bid, signed on each page with seal, to establish the bidder's eligibility and qualifications failing which their bid shall be summarily rejected and will not be considered. The original copies shall be produced by the bidder as and when required by the purchaser.
- 17. The technical bid must not include price bid, otherwise bid will be summarily rejected.
- 18. Equipment must be supplied with required accessories in running condition.
- 19. Please note that all the uploaded documents must be clearly marked with page no. and signature of authorized signatory. Further, the bidder must mention the page no. against each compliance in order to enable the Institute to verify the document quickly and properly.

# TECHNICAL COMPLIANCE STATEMENT

## (to be submitted on the letterhead of bidder)

# TENDER FOR SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF CCTV CAMPUS SURVEILLANCE SYSTEM AT IIT (BHU) VARANASI

Sr. No	Name and Description	Quantity	Unit	Whethertheinstrumentcomplieswiththerequiredspecification(Yes / No/ Better)	specification then
1	SITC of 5MP Bullet Camera with 50M IR	Quantity 300	Nos	/ Detter)	
	Distance.				
2	SITC of Network Video Recorder Software License for Primary & Failover (N+1) for 320 Cameras.	1	Set		
3	SITC of Video Management Software for 320 Cameras along with Client License (8 No's).	1	Set		
4	SITC of 8 Port PoE Switch with 2 Port Fiber.	65	Nos		
5	SITC of 24 Port PoE Switch with 4 port Fiber	1	Nos		
6	SITC of 1G SFP Transceiver.	132	Nos		
7	SITC of OFC Patch Cord Duplex (3 Mtrs).	132	Nos		
8	SITC of 6 Port LIU (Fully Loaded).	65	Nos		
9	SITC of 9U Weatherproof Junction Box with 500mm Depth.	42	Nos		
10	SITC of 9U Wall Mount Network Rack with 500mm Depth.	28	Nos		
11	SITC of 1KVA UPS with inbuilt Batteries.	65	Nos		
12	Supply and Laying of 6 Core Armoured Optical Fibre Cable.	8000	Mtrs		
13	Supply and Laying of 3 Core 1.5 Sqmm Power Armoured Cable.	8000	Mtrs		
14	Supply and Laying of CAT6 F/UTP Cable	35	Box		
15	SITC of RJ45 Connectors.	500	Nos		
16	Supply and Laying of 25mm Conduit Medium Class	2000	Mtrs		
17	Supply and Laying of 33/40mm HDPE Pipes	6400	Mtrs		
18	SITC of Outdoor OFC Joint Enclosure	65	Nos.		
19	SITC of 6 Meters Pole for Cameras.	80	Nos		
20	SITC of 24 port 25G/10G SFP+ Switch.	2	Nos		
21	SITC of 10G SFP Transceiver.	36	Nos		
22	SITC of 1G Copper SFP Monitoring System	4	Nos		
23	SITC of OFC Patch Cord Duplex (3 Mtr)	36			
24	SITC of Network Video Recorder Primary (128 Channel Network Video Storage Manager Server).	3	Nos.		

25	CITC of Notice de Vision Descritor Constant	1	Mat	-	
25	SITC of Network Video Recorder Secondary (Failover)	1	Nos.		
	(128 Channel Network Video Storage				
	Manager Server).				
26	SITC of 1500TB SAN System for Video	1	Set		
	Storage for 90 days				
27	SITC of Video Management System Server.	1	Nos.		
28	SITC of VMS Client Workstation.	8	Nos.		
29	SITC of 32" full HD LED Screen for Workstation	8	Nos.		
30	SITC of <b>55'' Video Wall</b> (2x2 Matrix) with controller	1	Sets		
31	SITC of 86" Interactive Panel Screen	2	Nos.		
32	SITC of <b>Smart Cooling Rack</b> (7kW) with 42U in height with 800X1200 for Network/ Server application.	1			
33	SITC of 20 KVA Online UPS with Battery backup of 120 minutes	2	Nos.		
34	SITC of 1.5 Ton Split AC	5	Nos.		
35	SITC of 3.0 Ton Split AC 3 phase)	2	Nos.		
36	SITC of Video Processing Unit	2	Nos.		
37	Supply and Laying of 48 Core SM Fiber Cable (400 MTR)	800	Mtrs		
38	SITC of 48 Port LIU (fully loaded)	4	Nos		
39	SITC of Fiber Patch cord (Duplex) (3 Mtr)	32	Nos		
40	Supply and Laying of 33/40 mm HDPE Pipe	600	Mtrs		
41	SITC of CAT6 Shielded Patch Cord (2 Mtr)	20	Nos		
42	SITC of Aluminium Partitioning with 12 mm thick particle board & 12 mm thick Glass	1	Nos		
43	SITC of Short wave length laser-Based Absolute Smoke Detection system with all accessories as required.	1	Nos		
44	SITC of Fire Suppression System with all Pipes, Nozzle, cable and other accessories.	1	Nos		
45	SITC of 62.5 KVA Three phase Silent DG Set along with other accessories i.e. Manual Control Panel with GPRS Enable, Fuel tank, Battery with leads.	1	Nos		
46	SITC of 5MP Outdoor IR PTZ Camera	10	Nos		
47	Manpower (Skilled) for 60 months	8	Nos		

\*\*The Institute may or may not procure these items. Bidders shall not have any right in this regard and the rate quoted shall not be considered for determining L1.

Date : .....

Signature of the Authorized Official with Seal

## **SECTION 9**

#### PREVIOUS SIMILAR ORDER EXECUTED

The bidder give the details of purchase orders of identical or similar equipment supplied to any IITs/IISc/IIM/IISER/NIT/IIIT/Govt. Autonomous Bodies/Central or State Govt. University/ Govt. Research Organizations/Government Offices/PSUs as per below Format for the period of 2021-22 to 2023-24

Name of the Firm

Order	Order No.	Description	Value	Date of	Remarks	Has the	Contact
placed by	and Date	and	of	completion	indicating	Equipment	Person
(Full		quantity of	Order	of delivery	reasons for late	being	along
address of		ordered		as per	delivery, if any	installed	with
Purchaser)		equipment		contract	and	satisfactorily	Telephone
					justification for	(Attach a	No.,
					price	Certificate	Fax No.
					difference of	from	and e-
					their	the	mail
					supply order &	Purchaser/	address.
					those	Consigner)	
					quoted to us		

(Kindly enclose the scan copy of aforementioned purchase orders along with satisfactory installation reports)

#### **Details of Technical Expert**

Name of application specialist / Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.

Name of the organization	Name of Contact Person	Contact No.

Signature and Seal of the Manufacturer / Bidder \_\_\_\_\_

Place :

Date : \_\_\_\_\_

## **BID SUBMISSION**

### **Online Bid Submission:**

The Online bids (complete in all respect) must be uploaded online in two Envelops as explained below:-

<b>Envelop</b> (Followi		s to be provided as single PDF file)			
Sl. No.	Document	Content	File Types		
1.	Technical Bid	Technical Compliance Sheet, compliance sheet of essential pre bid criteria	.PDF		
2.	1	Organization Declaration Sheet	.PDF		
2. 3.		Checklist, Tender Acceptance, Tender Form, Annexure I etc.	.PDF		
4.		List of organizations/ clients where the same products have bee supplied during 1 <sup>st</sup> April 2021 to 31 <sup>st</sup> March 2024 along with the contact number(s). (Annexure-III)			
5.	-	Technical supporting documents in support of all claims made at Annexure-I	.PDF		
6.		EMD and Tender fee submission proof	.PDF		
7.		Certificate as per Annexure VI, Annexure VII, VIII on the letterhead of the company	.PDF		
8.		Brochure of quoted product, Other Documents, if any which are not covered above	.PDF		
Envelop	e – 2	·			
Sl. No.	Document	Content			
1.	Financial Bid	Price bid Form should be submitted in PDF format.	.PDF		
2.		BoQ in .xls Format	.XLS		
3.	]	BoQ in .pdf Format*	.PDF		

Note : In case any difference arises between the price quoted in BoQ in .xls format and BoQ in .pdf format, the highest quoted price between the two will be considered for the purpose of financial evaluation of bid.

## ORIGINAL EQUIPMENT MANUFACTURER (OEM)/ MANUFACTURING AUTHORISATION FORM (MAF) (On Letter Head of Manufacturer)

Tender No. :- ..... Date:- .....

To The Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

Dear Sir,

We manufactures of original equipment at (.....address of factory.....address of Agent) do hereby authorize M/s (Name and address of Agent) to submit a bid, negotiate and receive the order format against your tender enquiry. M/s.

..... is authorized to bid and conclude the contract in regard to this business. We hereby extend our full guarantee and warranty as per clause ...... of the terms and conditions this Tender for the goods and services offered by the above firm.

We also confirm that we will ensure all support for our products delivered against this Tender by aforementioned firm to IIT (BHU) during warranty period, Maintenance Contract period and next 10 years after the closure of contract.

Yours Faithfully,

(Name)

(Name & Seal of Manufacturers)

## **DECLARATION**

## (to be submitted on the letterhead of Company)

To, The Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

## Ref. : OM No. F.7/10/2021-PPD(1) Ministry of Finance, Govt of India dated 23.02.2023.

Sir/Madam,

### We certify as under:

We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries, and solemnly certify that we fulfill all requirements in this regard and are eligible to be considered.

We certify that:

(a) We are not from such a country or, if from such a country, we are registered with the Competent Authority (copy enclosed).

and;

(b) We shall not subcontract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

Yours faithfully,

(Signature of the Bidder, with Official Seal)

## **DECLARATION OF LOCAL CONTENT**

[Declaration / Certificate to be provided by Statutory Auditor or Cost Auditor of the Company (in case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies) for tender value above Rs. 10 crores]

То

The Registrar Indian Institute of Technology (Banaras Hindu University) Varanasi, U.P.– 221005, India

## Subject: - Declaration of Local Content

Tender Reference No:\_\_\_\_\_

Name of Tender/ Work: \_\_\_\_\_

We hereby certify that the goods / software / solution being offered by us vide our proposal, comply with the provisions of Make In India (MII) Order No P-45021/2/2017-PP(BE-II)-Part(4)Vol.II dated 19.07.2024 issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, GoI as amended from time to time.

We hereby certify the details pertaining to goods / software / solution offered by us, against the tender requirement is given below:

Sr No		of origin	Manufacture of	of local contents	Details of the location(s) at which the local value addition is made	*Consolidated MII % for the offered solution
1	Item 1					
2	Item 2					
••••						
3	Item n					

\*The Consolidated MII % for the offered solution shall be considered for determining "Local content".

"Local Content" means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

We are solely responsible for the abovementioned declaration. False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law."

Note:

- 1. It is mandatory for bidders to quote items having local content minimum 20%.
- 2. The Country of origin / manufacturing should be declared for goods/ software/ solution being offered.

- 3. IIT(BHU) reserves the right to Accept / Reject / Cancel the bid / bidder, at its sole discretion, based on the responses received against the MII and Land border sharing declarations submitted by the bidders / vendors.
- 4. While declaring the Local content percentage, the aforementioned OM must be taken into consideration by the bidders/OEMs. In case of any ambiguity/doubt the bidders may visit DPIIT website <a href="https://dpiit.gov.in/sites/default/files/FAQ\_PublicProcurement\_22April2024.pdf">https://dpiit.gov.in/sites/default/files/FAQ\_PublicProcurement\_22April2024.pdf</a>.

Yours faithfully,

(Signature of the bidder, with Official Seal)

#### **UNDERTAKING**

(to be submitted by the bidder on their letter head)

To, The Chairperson Campus Surveillance System Institute Purchase Cell Indian Institute of Technology (Banaras Hindu University) Varanasi-221005

I/We ...(name of the representative(s))..... representing M/s..... hereby confirm that we agree to give presentation and demonstration of the Proof of Concept as part of Technical Evaluation of this tender as per the schedule notified by IIT(BHU).

I/We confirm that we will demonstrate the PoC with the same make and model which have been quoted by us against this Tender reference no. .....

I/We further confirm that the solution/system offered/quoted against this tender are fully compatible with the existing network infrastructure of IIT(BHU).

We confirm that no information has been concealed/ hidden by us.

If at any point of time during the tender process, it has been found that we have concealed any information our bid is liable to be rejected from further tendering process.

I/We shall be solely responsible for the above information.

Signature Name of Representative: Name of Bidder: Address: Mobile No..... Email :

## PROOF OF CONCEPT (POC) REQUIREMENT

During the POC stage, rooms where POC equipment are installed by Bidder will remain under the custody of IIT (BHU) till completion of POC. Bidders must ensure that the make and model of Hardware & Software used in POC must be of the same model & series as offered in their submitted bids. The same will be verified by the IIT (BHU) authorities.

Please note that the offered Solution should be compatible with the existing network of the Institute. All expenses for the POC (including testing charges, if any) will be borne by the bidder.

#### **Functional Requirement:**

Bidders shall have to demonstrate all features/ configuration of the offered solution to IIT (BHU) or its authorized representative as per points mentioned below failing which their bid shall not be considered for further processing.

Sr. No.	Equipmen t	Quantit	Functionality	Checked (Yes/No)	
1	VMS	2 clients	Verify live and playback @full HD or higher resolution	(165/110)	
			Zoom and PTZ verification from VMS Client		
			Demonstration and generation of reports		
			Verify Alarms in VMS Client		
2	5MP Bullet	Bullet   6 nos   Verify Physical Products			
			Verify Make and Model number of the offered solution		
			Verify video resolution, Frame Rate, Stream Capability and White Dynamic Range (WDR)		
			Verify and demonstrate Motion detection, Intrusion and Tampering detection Analytics		
			Mac Address of the Cameras Should be of the same OEM		
3	5MP PTZ	2 nos	Verify Physical Products		
	Camera		Verify Make and Model number of the offered solution		
			Verify video resolution, Frame Rate, Stream Capability and White Dynamic Range (WDR)		
			Verify and demonstrate Motion detection, Intrusion and Tampering detection Analytics		
			Mac Address of the Cameras Should be of the same OEM		
4	SITC of 8	SITC of 8 1 piece Verify Physical Products			
	Port PoE Switch	-	Verify Make and Model number of the offered solution		
	with 2 Port Fiber		Mac Address of the Switch Should be of the same OEM		

#### \*\*\*END OF DOCUMENT\*\*\*