### भारतीय उष्णदेशीय मौसम विज्ञान संस्थान INDIAN INSTITUTE OF TROPICAL METEOROLOGY

# (पृथ्वी विज्ञान मंत्रालय, भारत सरकार का एक स्वायत्त संस्थान)

(An autonomous Institute under the Ministry of Earth Sciences, Govt. of India) पाषाण, पुणे – 411 <u>008</u>

# PASHAN, PUNE - 411008

# वैश्विक निविदा सूचना / GLOBALTENDER NOTICE

निदेशक, भारतीय उष्णदेशीय मौसम विज्ञान संस्थान, डॉ. होमी भाभा मार्ग, पाषाण, पुणे - 411 008 (भारत) निम्नलिखित की आपूर्ति, प्रवर्तन, संस्थापन एवं संतोषप्रद निरूपण हेतु निर्माताओं/आपूर्तिकारों एवं उनके प्रत्यायित विक्रय एजेंटों से निविदाएं (भाग-।तकनीकी बोली, भाग - ॥ कीमत बोली) आमंत्रित करते हैं :

Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan, Pune - 411008 (India) invites tenders (Part-I – Technical Bid, Part-II – Price Bid) from Manufacturers / Suppliers and their accredited selling agents for the supply, installation, commissioning, and satisfactory demonstration of following.

| क्रम सं. | वैश्विक निविदा सूचना सं. | विवरण / Description   |
|----------|--------------------------|---|
| Sr. No.  | Global Tender Notice No. |   |
| 01.      | पीएस/125/27/2019         | नेटवर्क इंफ्रास्ट्रक्चर सिक्यूरिटी सर्विलांस एवं कैंपस वाइड वाय-फाय नेटवर्क सोलूशन (टर्नकी जॉब) |
|          | PS/125/27/2019           | मात्रा– 01 कार्य की आपूर्ति, स्थापना, कमीशन, एकीकरण और रखरखाव हेतु                              |
|          |                          | Supply, Installation, Commissioning, Integration & Maintenance of Network                       |
|          |                          | Infrastructure, Security Surveillance and Campus Wide WiFi Network                              |
|          |                          | Solution- Qty. 01 Job. (Turnkey Job)  |

बोली-पूर्व बैठक (ऑफलाइन) Pre-bid Meeting (Offline) ऑनलाइन मोड पर निविदा प्रस्तुत करने की अंतिम तिथि Last date of submission of Tender on online mode ऑनलाइन (तकनीकी बोलियाँ केवल) निविदा खोलने की तिथि Opening of Tenders online (Technical bids only) : 13 जनवरी 2020 को 1130 बजे : 13<sup>th</sup> January 2020 at 1130 hrs. : 30 जनवरी 2020 को 1500 बजे : 30<sup>th</sup> January, 2020 at 1500 hrs. : 30 जनवरी 2020 को 1530 बजे : 30<sup>th</sup> January, 2020 at 1530 hrs.

संस्थान को किसी निविदा या सभी निविदाओं को बिना कारण बताए निरस्त करने का अधिकार है। विस्तृत विवरण एवं बोलियों के प्रस्तुतीकरण हेतु कृपया वेबसाइट <u>https://moes.euniwizarde.com</u> देखें। संभावित बोलीदाताओं की जानकारी के लिए, निविदा विवरण भी इस संस्थान की वेबसाइट http://www.tropmet.res.in एवं सरकार का सेंट्रल प्रोक्युरमेंट पोर्टल (सीपीपी) http://www.eprocure.gov.in. पर भी उपलब्ध है।

The Institute reserves the right to reject any or all tenders without assigning any reason thereof. For details and submission of bids please visit website <a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a>. For the information of the prospective bidders, the tender details are also available on this Institute's Website: <a href="http://www.tropmet.res.in">http://www.tropmet.res.in</a> and Government's Central Procurement Portal (CPP) <a href="http://www.eprocure.gov.in">http://www.eprocure.gov.in</a>.

Sd-प्रशासनिक अधिकारी, कृते निदेशक Administrative Officer, for Director ईमेल/Email :psu.iitm@tropmet.res.in



# **Tender**

# **FOR**

Supply, Installation, Commissioning, Integration & **Maintenance Of Network Infrastructure, Security Surveillance and** Campus wide WiFi Network Solution - Qty. 01 Job. (Turnkey Job)

INDIAN INSTITUTE OF TROPICAL METEOROLOGY (AN AUTONOMOUSINSTITUTE OF MINISTRY OF EARTH SCIENCES, GOVERNMENT OF INDIA)

DR. HOMI BHABHA ROAD, PASHAN, PUNE 411 008 MAHARASHTRA, INDIA



### INDIAN INSTITUTE OF TROPICAL METEOROLOGY

(AN AUTONOMOUS INSTITUTE OF MINISTRY OF EARTH SCIENCES, GOVERNMENT OF INDIA)
DR. HOMI BHABHA ROAD, PASHAN, PUNE 411 008 MAHARASHTRA, INDIA

Tel #: 00 91 20 2590 4200, Fax #: 00 91 202586-5142

Email:psu.iitm@tropmet.res.in, Website: www.tropmet.res.in

Invitation for Bids / Notice Inviting Request for Proposal

Date: 27/12/2019

The Indian Institute of Tropical Meteorology (IITM), Pune an autonomous body under Ministry of Earth Sciences (MoES), Govt. of India. IITM is country's premiere research Institute to generate scientific knowledge in the field of meteorology and atmospheric sciences that has potential application in various fields such as agriculture, economics, health, water resources, transportation, communications, etc. It functions as a national centre for basic and applied research in monsoon meteorology. The Director, IITM would like to procure the following Goods / Services for its day-to-day research. The Technical specifications, Allied requirements and Scope of Supply are given in **Chapter 4** appended herewith.

| Sr. | Tender No.     | Brief Description of Goods / Services   | Quantity | Single / |
|-----|----------------|---|----------|----------|
| No. |                |   |          | Two Bid  |
| 1   | PS/125/27/2019 | Supply, Installation, Commissioning, Integration & Maintenance Of Network Infrastructure Security Surveillance and Campus wide WiFi Network Solution. | O1 Job   | Two      |
|     |                | (Turnkey Job)   |          |          |

- 1. The bid has to be submitted online on Institute's e-procurement system hosted at website https://moes.euniwizarde.com as per the process mentioned on the same website. Bidder has to register on the above website to participate in the bidding process through e-procurement. Bidders are advised to follow the instructions provided in 'Vendor's Guide" available on the said e-procurement website. Bidders can contact at 011-49606060 for any technical queries regarding registration and submission of bid on the above portal.
- 2. The address for submission of **Technical bids only** and for obtaining further information:

(Kind Attn.: Deputy Manager (Purchase Section))

The Director,

Indian Institute of Tropical Meteorology,

Dr. Homi Bhabha Road, Pashan, Pune - 411008 (India)

3. A Pre-bid Conference will be held on schedule mentioned below. All prospective bidders are requested to kindly submit their queries to the address indicated above so as to reach the Assistant Manager (Purchase) at least **three day** before Pre-Bid Conference.

Date Time in hours (IST) Venue

Pre-Bid Conference 13th January, 2020 1130 hrs. IITM, Pune (Aryabhatta Conference Hall)

4. The Bid prepared by the Bidder shall include the following:-

| i)  | Bid Security   |  |
|-----|--|--|
| -   | a) In case of Foreign Bidder : <b>US\$ 11,500</b>                    |  |
|     | b) In case of Indigenous Bidder : Rs.8,00,000 ( Rs. Eight Lakh only) |  |
| ii) | Forms as specified in Chapter No.8                                   |  |

- 5. All bids must be accompanied by a Bid Security as specified above and must be delivered to the above office before the date and time indicated below. In the event of the date specified for bid receipt is declared as a closed holiday, the due date for submission of bids will be the following working day at the appointed time.
- 6. The Schedule for Submission of Bids is as follows:-

|                      | Date                           | Time in hours (IST) | Submit to / Venue       |
|----------------------|--------------------------------|---------------------|-------------------------|
| Submission of Bids   | 30 <sup>th</sup> January, 2020 | Upto1500 hrs.       | As detailed at Sr. No.1 |
| Opening of Bids      | 30th January, 2020             | 1530 hrs            |                         |
| (Technical bid only) |                                |                     |                         |

7. The Director, **The Indian Institute of Tropical Meteorology (IITM), Pune** reserves the right to accept or reject any or all tenders / offers either in part or in full or to split the order without assigning any reasons there for. NIT has also been published on Government's Central Procurement Portal (CPP) http://www.eprocure.gov.in as well as this Institute's Website: http://www.tropmet.res.in which may also be referred for more details.

# **CONTENTS OF TENDER / BIDDING DOCUMENT**

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# LIST OF SHORT FORMS AND FULL FORMS

| SHORT FORM | FULL FORM  |
|------------|--|
| BG         | BANK GUARANTEE                                       |
| BS         | BID SECURITY   |
| CIF        | COST INSURANCE &FREIGHT                              |
| CIP        | CARRIAGE PAID TO                                     |
| IITM       | INDIAN INSTITUTE OF TROPICAL METEOROLOGY,            |
| CVC        | CENTRAL VIGILANCE COMMISSION                         |
| DGS&D      | DIRECTOR GENERAL OF SUPPLIES & DISPOSAL              |
| EMD        | EARNEST MONEY DEPOSIT                                |
| ESIC       | EMPLOYEES STATE INSURANCE CORPORATION                |
| FCA        | FREE CARRIER   |
| FOB        | FREE ON BOARD  |
| GCC        | GENERAL CONDITIONS OF CONTRACT                       |
| GOI        | GOVERNMENT OF INDIA                                  |
| ICC        | INTERNATIONAL CHAMBERS OF COMMERCE                   |
| IEMs       | INDEPENDENT EXTERNAL MONITORS                        |
| IP         | INTEGRITY PACT                                       |
| IPC        | INDIAN PENAL CODE                                    |
| IST        | INDIAN STANDARD TIME                                 |
| IT         | INCOME TAX   |
| ITB        | INSTRUCTIONS TO BIDDERS                              |
| JS (A)     | JOINT SECRETARY (ADMINISTRATION)                     |
| LC         | LETTER OF CREDIT                                     |
| LD         | LIQUIDATED DAMAGES                                   |
| MAF        | MANUFACTURER AUTHORISATION FORM                      |
| NIT        | NOTICE INVITING TENDER                               |
| NSIC       | NATIONAL SMALL INDUSTRIES CORPORATION                |
| PS         | PERFORMANCE SECURITY                                 |
| SCC        | SPECIAL CONDITIONS OF CONTRACT                       |
| UNCITRAL   | UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW |

Sub: Supply, Installation, Commissioning, Integration & Maintenance Of Network Infrastructure and Campus wide WiFi Network Solution.

Director, Indian Institute of Tropical Meteorology (IITM), an Autonomous Institute of Ministry of Earth Sciences (MoES), Government of India, invites sealed Bids in duplicate (with the Covering letter, format given in Proforma) in Two Bid System for implementation of **Of Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution** based on latest technology at constituent units of Ministry of Earth Sciences (viz. IITM, Pune) to meet the operational and observational huge data storage requirements.

The scope under this RFP involves supply, installation, commissioning, integration and maintenance of **Of Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution**. The requirement is a total turnkey solution. The successful bidder, during the contractual period, has to address the complete requirement of supply, installation, commissioning, integration as well as warranty and Comprehensive Annual Maintenance Contract (CAMC) services after the satisfactory acceptance of the solution by the Purchaser.

The inputs that are required to accomplish the above are provided in the tender document in different sections. The bidders are requested to go through the entire tender document, make a visit to the site locations, if required and clearly understand the environmental conditions.

Any additional inputs that are required to meet the objectives and deliverables of this tender over and above the stated ones have to be brought out clearly by the bidders, in writing, atleast 3 days before the pre-bid clarification meeting. The same will be taken up for discussion in the pre-bid clarification meeting and the inputs/clarifications required will be provided in the addendum to the RFP.

After the above step, no further discussions are permitted and no additional inputs will be provided and therefore, the bidders have to raise all the queries in writing before the pre-bid clarification meeting only, as stipulated.

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### A. Introduction

Instructions to bidder are broad guidelines to be followed while formulating the bid and its submission to the Purchaser. It also describes the methodology for opening and evaluation of bids and consequent award of contract.

### 1.1 Eligible Bidders

- 1.1.1. Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.
- 1.1.2. Bidders who fulfil the Eligibility Criteria mentioned in **Chapter 5** will be considered for Technical Evaluation of bids.

### 1.2 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.

### 1.3 Fraud and corruption

1.3.1. The purchaser requires that the bidders, suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

| Sr. No. | Term                | Meaning  |  |
|---------|---------------------|--|--|
| (a)     | Corrupt practice    | The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution. |  |
| (b)     | Fraudulent practice | a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.   |  |
| (c)     | Collusive practice  | means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, non-competitive levels.             |  |
| (d)     | Coercive practice   | means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.     |  |

1.3.2. The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

### B. The Bidding Documents

### 1.4 Cost of Bidding Documents

The bidding documents are to be downloaded from Institute's e-procurement website hosted at <a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a> as per the procedure mentioned on the said website. The bidding document is free of cost however transaction fees mentioned on the website has to be paid according to the procedure mentioned at the website.

# 1.5 Content of Bidding Documents

- 1.5.1. The Goods / Services required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction. The bidding documents, apart from the Invitation for Bids / Notice Inviting Tender have been divided into Eight Chapters.
- 1.5.2. 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.

### 1.6 Clarification of bidding documents

### 1.6.1. In case when there is NO PRE-BID CONFERENCE

A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC). The Purchaser will respond in writing to any request for clarification, provided that such request is received not later than ten (10) days prior to the due date for submission of bids. The Purchaser shall host the responseon its website, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under Clause 1.7 relating to amendment of bidding documents and Clause 1.19 relating to Due date for Submission of Bids. The clarifications and amendments issued would also be hosted on the website of the purchaser for the benefit of the prospective bidders who are expected to take cognizance of the same before formulating and submitting their bids.

### 1.6.2. In case when there is PRE-BID CONFERENCE

- a) A prospective Bidder requiring any clarification of the Biding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC), at least 3 working days before the date specified in the Invitation for Bids / NIT which would be deliberated as per Clause 1.6.2 (b) of Instructions to the Bidders No request for clarification or query shall be normally entertained after the Pre-Bid Conference. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under Clause 1.7 relating to amendment of Bidding Documents and Clause 1.19 relating to Due Date for Submission of Bids. The clarifications and amendments issued would also be hosted on the website of the Purchaser for the benefit of the other prospective bidders.
- b) A Pre-bid Conference shall be held as indicated in Invitation to Bid. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate IITM for proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries by email / Post / Courier (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach IITM at least 3 days before the date of pre-bid conference as indicated in Invitation to Bid. IITM shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. These proceedings will become a part of clarifications / amendments to the bidding documents and would become binding on all the prospective bidders. These proceedings would also be sent to prospective bidders by email as well as in hard copy.

# 1.7 <u>Amendment to Bidding Documents</u>

- 1.7.1. At any time prior to the due date 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.
- 1.7.2. All prospective bidders who have downloaded the Tender Document should visit Institute's e-procurement website http://moes.euniwizarde.com/eprochome/hild/buyer\_login.jsp from time to time to know about the changes / modifications in the Tender Document. All prospective bidders are expected to surf the website before formulating and submitting their bids to take cognizance of the amendments.
- 1.7.3. In order to allow prospective bidders reasonable time to take the amendment into account while formulating their bids, the Purchaser, at its discretion, may extend the due date for the submission of bids and will be informed to prospective bidder.

### C. <u>Preparation of bids</u>

### 1.8 Language of Bid

1.8.1. 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 only especially when the details are technical. However, if GOI makes it mandatory under Rajbhasha Abhiyan, in that case views of Rajbhasha unit of IITM may be sought.

1.8.2. The Supplier shall bear all costs of translation, if any, to the English language and bear all risks of the accuracy of such translation, for documents provided by the Supplier.

### 1.9 <u>Documents Comprising the Bid</u>

The bid prepared by the Bidder shall include the following as per the requirement of the Tender Document:

| 1.  | Bid Security as specified in the Invitation to Bids   |  |  |
|-----|---|--|--|
| 2.  | Bidder Information Form   |  |  |
| 3.  | Manufacturer's Authorization Form   |  |  |
| 4.  | Documents required to fulfil Eligibility and Qualification criteria as specified in Chapter-5 |  |  |
| 5.  | Detailed Technical Specifications and Scope of Supply   |  |  |
| 6.  | Detailed of design with diagrams for electrical, HVAC, DC layout etc.                         |  |  |
| 7.  | Schedule of requirements / detailed Bill of Material for DISK ARCHIVAL STORAGE                |  |  |
|     | SOLUTIONS.  |  |  |
| 8.  | Performance Statement Form  |  |  |
| 9.  | Service support details form  |  |  |
| 10. | Deviation Statement Form  |  |  |
| 11. | Bid form  |  |  |
| 12. | Price Schedule Form(s)  |  |  |
| 13. | Documentary evidence establishing that the bidder is eligible to bid and is qualified to      |  |  |
|     | perform the contract if its bid is accepted   |  |  |
| 14. | Documents establishing goods eligibility and conformity to bidding documents                  |  |  |

The documents comprising bid should be submitted in the above sequence in orderly manner.

### 1.10 Bid form and Price Schedule

The bidder shall complete the Bid Form and the appropriate Price Schedule form as given in Chapter-6 furnished in the bidding documents. These forms must be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. The Bid Form and the appropriate Price Schedule form shall be submitted in accordance with ITB Clause 1.18.3 of the bidding documents.

### 1.11 Bid Prices

- **1.11.1.** The Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the Goods / Services it proposes to supply / to provide (render) under the contract.
- 1.11.2. Prices indicated on the price-schedule form shall be entered separately in the following manner:

### (a) For Goods manufactured within India:

| i)   | The price of the goods quoted Ex-works including taxes already paid.                       |
|------|--|
| ii)  | GST and other taxes which will be payable on the goods if the contract is awarded.         |
| iii) | The charges for inland transportation, insurance and other local services required for     |
|      | delivering the goods at the desired destination as specified in the price schedule form.   |
| iv)  | The installation, commissioning and training charges including any incidental services, if |
|      | any.   |

### (b) For Goods manufactured abroad:

| i)   | The price of the goods, quoted on FCA (named Airport abroad) or FOB (named port of            |  |
|------|---|--|
|      | shipment), as specified in the price schedule form.   |  |
| ii)  | The charges for insurance and transportation of the goods to the port / place of destination. |  |
| iii) | The agency commission charges payable to Indian agent in Indian rupees, if any.               |  |
| iv)  | The installation, commissioning and training charges including any incidental services, if    |  |
|      | any   |  |

1.11.3. The terms FOB, FCA, CIF, CIP etc shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.

- 1.11.4. Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.
- 1.11.5. The price quoted shall remain fixed during the contract period and shall not vary on any account.
- 1.11.6. All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.
- 1.11.7. The purchases made by the purchaser for scientific purpose are exempt from Custom Duty and GST and are charged at a concessional rate, as follows:-

| <b>Custom Duty</b> | The Purchaser is <b>exempted from payment of Custom Duty</b> vide Govt. Of India Notification No.51/96-Customs dated 23 <sup>rd</sup> July, 1996.   |  |
|--------------------|---|--|
| GST                | The Purchaser is registered with Department of Scientific and Industrial Research (DSIR) for purposes of availing <b>GST concession</b> in terms of Notification No. 47/2017-Integrated Tax (Rate) dt. 14/11/2017, Notification No. 45/2017-Central Tax (Rate) dt. 14/11/2017 and Notification No. 45/2017-Union Territory Tax (Rate) dt. 14/11/2017. The maximum GST is applicable @ 5% only for goods (supplies only) procured for research purpose of the Institute. |  |

- 1.11.8. The prices quoted for import items should be on Delivery term **Delivered Duty Paid (DDP) INCOTERM 2010**. The responsibility of the supplier includes packing, loading, unloading, handling, inland transport at source and destination countries, Sea / Air freight, transit insurance, payment of customs duty and customs clearance charges etc.
- 1.11.9. The quotation should be only in Indian Rupees for indigenous items. In case of foreign quote, the vendors may quote their rates in Indian Rupees as well as in Foreign Currency.
- 1.11.10. In case of INR bids the price criteria should be on Free Delivery to IITM, Pune. Govt. Levies like GST, LBT / Octroi etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, GST etc., if any. IITM is exempted from paying Local Body Tax (LBT) & hence supplier supplying items from outside Pune Municipal limits should quote excluding LBT.
- 1.11.11. Concessional Custom Duty is levied on all import item meant for IITM. Hence, the suppliers are requested to obtain CDEC certificate from purchaser and pay the applicable concessional customs duty as the delivery term is DDP.
- Note: All payments due under the contract shall be paid after deduction of statutory levies at source (like ESIC, IT (TDS), Service Tax, WCT etc.), wherever applicable.

### 1.12 Bid Currencies

Prices shall be quoted in Indian Rupees for offers received for supply within India and in foreign currency (preferably in **USD**) in case of offers received for supply from foreign countries.

### 1.13 <u>Documents Establishing Bidder's Eligibility and qualifications</u>

- 1.13.1. The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted.
- 1.13.2. The documentary evidence of the bidders qualification to perform the contract if the bid is accepted shall establish to the purchasers satisfaction that:

| (a) | The bidder meets the qualification criteria listed in bidding documents, if any.   |
|-----|--|
| (b) | Bidder who doesn't manufacture the goods it offers to supply shall submit Manufacturers' Authorization Form using the form specified in the bidding document to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and / or supply the   |
| (c) | goods.  In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India, equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period. |

1.13.3. Conditional tenders / offers shall **not** be accepted.

### 1.14 <u>Documents Establishing Goods' Eligibility and Conformity to Bidding Documents</u>

- 1.14.1. To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.
- 1.14.2. To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:
  - (a) A detailed description of the essential technical and performance characteristics of the goods;
  - (b) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods during the warranty period following commencement of the use of the goods by the Purchaser in the Price- bid: and
  - (c) An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 1.14.3. For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

### 1.15 Bid Security (BS) / Earnest Money Deposit (EMD)

1.15.1. The Bidder shall furnish, as part of its bid, a Bid security (BS) / Earnest Money Deposit (EMD) of amount as specified in NIT in the form of a Bank Guarantee / Demand Draft drawn on any Scheduled / Commercial / Nationalized Bank in favour of the Director, The Indian Institute of Tropical Meteorology (IITM), Pune, The scan copy of the Bid Security / Earnest Money Deposit (EMD) has to be uploaded in the e-procurement website of the Institute and Original copy of the same has to be kept in the Technical Bid envelop which need to be submitted on or before date submission of bids. Alternately EMD amount can be deposited in IITM, Pune account by RTGS/NEFT/SWIFT. The details of online transfer may be communicated to IITM Pune immediately and the details should be uploaded on the e-procurement website of the Institute.

### A. In case of Foreign Bidder(s):

- a) The BS shall be submitted either by the principal or by the Indian agent.
- b) The bidder who submits the tender on behalf of their principals should produce documentary evidence in support of their authority to quote.
- c) The Bank Guarantee is insisted due to steep fluctuations in foreign exchange hence the foreign DDs/TT are not accepted towards BS/EMD

### B. In the case of indigenous bidders:

- a) The BS shall be submitted by the manufacturer or their specifically authorized dealer/bidder.
- 1.15.2. Bids submitted without BS/EMD will stand rejected. BS/EMD will not be accepted in the form of cash / cheque or any other form other than DD/Banker's Cheque/TDR/Bank Guarantee as per Chapter-8:

  Annexure A. No interest is payable on BS/EMD
- 1.15.3. The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the Bid security's forfeiture.
- 1.15.4. The bid security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:
  - (a) A Bank Guarantee (BG) issued by a Nationalized / Scheduled bank / Commercial / Foreign Bank operating in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Nationalised / Scheduled

|     | Indian bank;   |
|-----|--|
|     | OR   |
| (b) | A Banker's cheque or demand draft in favour of the <b>Purchaser</b> issued by any Nationalised |
|     | / Scheduled Indian bank / Commercial bank.   |
|     | OR   |
| (c) | EMD amount can be deposited in IITM, Pune account by RTGS/NEFT.                                |
|     | Account No. : 11099449733  |
|     | Bank Name and address : STATE BANK OF INDIA  |
|     | IFSC Code : SBIN0000454  |

- 1.15.5. The bid security shall be payable promptly upon written demand by the purchaser in case the conditions listed in the **ITB clause 1.15.11** are invoked.
- 1.15.6. The bid security should be submitted in its original form. Copies shall not be accepted.
- 1.15.7. Bid security / EMD is mandatory requirement and exemption is applicable to the firms registered with NSIC only for the manufacture of the tendered goods and not for selling products manufactured by other companies.
- 1.15.8. The Bid Security of unsuccessful bidder will be discharged / returned as promptly as possible but positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.
- 1.15.9. The successful Bidder's bid security will be discharged upon the Bidder furnishing the Performance Security, without any interest. Alternatively, the BS could also be adjusted against Performance Security, if it is paid through Demand Draft / Banker's Cheque.
- 1.15.10. In case a bidder intimates at the time of tender opening in writing that the bid security is kept inside the financial bid, then in such cases, the technical bid of the party would be accepted provisionally till opening of the financial bids with which the party has attached the bid security.
- 1.15.11. The bid security may be forfeited:
  - (a) If Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form;

    OR

    (b) In case of successful Bidder, if the Bidder fails to furnish order acceptance within 14 days of the order or fails to sign the contract and / or fails to furnish Performance Security within 14 days from the date of contract / order.
- 1.15.12. Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

### 1.16 Period of Validity of Bids

- 1.16.1. Bids shall remain valid for minimum of **180** 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.
- 1.16.2. 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 (or by fax or e-mail). The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.
- 1.16.3. Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

### 1.17 Format and Signing of Bid

- 1.17.1. The bids may be submitted as Single-bid or Two-bid as specified in the Invitation for Bids / NIT through e-procurement system hosted at website <a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a> as per the process mentioned on the same website.
- 1.17.2. In case the bids are invited on single bid basis, then the Bidder shall submit his / her technocommercial offer in a single bid through e-procurement system.

- 1.17.3. In case the bids are invited on two-bid system, the Bidder shall submit the bids in two separate parts. First part shall contain Technical bid comprising all documents listed under clause relating to Documents Comprising the Bid excepting bid form and price schedule forms. The second part shall contain the Price-Bid comprising Bid Form and Price Schedule forms. Technical & Price bids are to be submitted through e-procurement system. However copy of Technical Bid along with EMD (Original DD/TDR/BG or details of online transfer) has to be submitted to the Institute on or before the due date & time for submission of bids.
- 1.17.4. The original and all copies of the Technical bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid.
- 1.17.5. The Price Bid in the prescribed format shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract and same should be uploaded on the e-procurement system.
- 1.17.6. Any interlineations, erasures or overwriting shall be valid only if they are initialled by the person or persons signing the bid.

### D. Submission of Bids through e-procurement system

### 1.18 Submission of Bids

- 1.18.1. The bidders may submit their bids online on Institute's e-procurement portal hosted at <a href="https://moes.euniwizarde.com/eprochome/hild/buyer\_login.jsp">https://moes.euniwizarde.com/eprochome/hild/buyer\_login.jsp</a>and duly sealed technical bids (with soft copy)along with Earnest Money Deposit may be submitted generally by post or by hand at the Institute on or before last date of submission of bids.
  - a) The soft copy of the Technical Bid has to be submitted on Institute e-procurement site https://moes.euniwizarde.com as per the instruction given at the site.
  - b) Price has to be filled on Institute's e-procurement site <a href="https://moes.euniwlzarde.com">https://moes.euniwlzarde.com</a>. Bidders are required to submit the standard BoQ as per the format prescribed in the bidding document by filling the necessary white cells of the excel sheet (unprotected cells) only. In addition to this, the scanned copy of duly filled in and signed Price Bid in pdf format may also be uploaded on the above e-procurement site. The prices quoted in the excel sheet format will prevail if noticed any discrepancy in the figures of the excel sheet and pdf copy of price bid uploaded. The prices filled in the e-procurement site will be treated as final and shall be binding to the vendor.
  - c) Bidders are advised to follow the instructions provided in 'Vendor's Guide" available on the said e-procurement website. For any query / technical help regarding M/S. ITI Limited E-procurement portal, bidders may directly contact to the following officials of M/S. ITI Limited:

i) Mr. Shubhankar - +91 8076208995 ii) Mr Awesh - +91 9205898224 iii) Helpdesk Number - 011-49606060 iv) Email : helpdeskeuniwizarde@gmail.com

### 1.18.2. Sealing of Bids in the case of bids invited on Two bid basis:

d) Technical Bid should contain documents as listed in Clause- 1.9 without mentioning Prices on Bid Form and Price Schedule Form(s). The Bidder shall seal the original Bid and copy Bid, duly marking the Bids as "original" and "copy". The original and copy Bids shall then be sealed in the Envelope and marked as Technical Bid.

Price Bid should contain Bid Form and Price Schedule Form(s) with Rates / Prices filled in as per Chapter 6. Price Bid must be submitted online only through e-procurement portal.

### **1.18.3.** Marking of Envelopes for submission Technical Bids:

 a) The inner and outer envelopes shall be addressed to the Purchaser indicated in the Special Conditions of Contract (SCC).

| b) | The name and address of the bidder, Tender No., due date and a warning "Do not open before |
|----|--|
|    | " to be completed with the time and date as specified in the invitation for bids.          |
| c) | All envelopes should be super scribed with   |
|    | T 1 M 1  |

Tender Number: \_\_\_\_\_\_
 Due Date \_\_\_\_\_\_
 Name of the Vendor \_\_\_\_\_\_

Addressed To:

THE DIRECTOR
THE INDIAN INSTITUTE OF TROPICAL METEOROLOGY,
Dr.HOMI BHABHA ROAD, PASHAN,
PUNE-411 008 (MAHARASHTRA)- INDIA

1.18.4. If Technical Bid envelope is not sealed and marked as required above, the Purchaser will assume no responsibility for the bid's misplacement or premature opening of the submitted bid. In such cases, bids received in open condition within the due date and time will be accepted at the risk of the bidder if the same is presented to the Purchase Officer before expiry of the due date and time of opening of the bids.

### 1.19 Due date for Submission of Bids

- 1.19.1. Bids must be received by the Purchaser at the address specified in NIT not later than the time and date specified in NIT. In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received up to the appointed time on the next working day.
- 1.19.2. The Purchaser may, at its discretion, extend the due date for submission of bids by amending the bid documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the due date will thereafter be subject to the due date as extended.
- 1.19.3. The online tender should be submitted strictly as per the terms and conditions and procedures laid down in the website <a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a> e-procurement portal of the Institute.
- 1.19.4. Bidders may also refer instructions towards terms and conditions and procedures for bidding through e-procurement portal <a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a> as per detailed in **Annexure Q.**

# 1.20 <u>Submission of Bids</u>

- 1.20.1. Online submission of the bid will not be permitted on the e-procurement portal after expiry of submission time and the bidder shall not be permitted to submit the same by any other mode.
- 1.20.2. The copies of the documents submitted as a part of Technical Bid in e-procurement system should reach IITM, Pune within 5 working days from the last date of submission of bids on e-procurement system. The bids shall be liable to rejected if the document not received within stipulated deadline and the uploaded online bid on the portal shall be considered as non-responsive and shall not be processed further. In case of any discrepancy between online uploaded technical bid and hard copy submitted at this Institute, the online copy shall be considered as final.

### 1.21 Withdrawal, substitution and Modification of Bids

- **1.21.1.** The Withdrawal, substitution and Modification of Bids is permitted as per the provisions of the e-procurement system.
- 1.21.2. No bid may be withdrawn, substituted, or modified in the interval between the due date for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form or any extension thereof.

### E. Opening and Evaluation of Bids

### 1.22 Opening of Bids by the Purchaser

- 1.22.1. Opening of Bids by the Purchaser will be done as per the provisions of the e-procurement system. In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened at the appointed time and location on the next working day. In case of two-bid, the Price bid shall be opened only after technical evaluation.
- 1.22.2. Bidders interested in participating in the bid opening process, should witness the tender opening process on e-procurement system.

### 1.23 Confidentiality

- 1.23.1. Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until Award of the Contract.
- **1.23.2.** Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

### 1.24 Clarification of Bids

To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.

### 1.25 Preliminary Examination

- 1.25.1. The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in ITB Clause 1.9 have been provided, and to determine the completeness of each document submitted.
- 1.25.2. The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.
  - (a) All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, will be treated as non-responsive and ignored. The following are some of the important points, for which a tender may be declared as non-responsive and will be ignored, during the initial scrutiny:

| i    | The Bid is unsigned   |
|------|---|
| ii   | The Bidder is not eligible  |
| iii  | The Bid validity is shorter than the required period                                  |
| iv   | The Bidder has quoted for goods manufactured by a different firm without the required |
|      | authority letter from the proposed manufacturer                                       |
| ٧    | Bidder has not agreed to give the required performance security                       |
| ٧i   | The goods quoted are sub-standard, not meeting the required specification, etc.       |
| vii  | Against the Requirement (Scope of supply) the bidder has not quoted for the entire    |
|      | requirement as specified in Chapter 4   |
| viii | The bidder has not agreed to some essential condition(s) incorporated in the tender.  |

(b) Bid Form and Price Schedule Form, in accordance with ITB Clause 1.10. In case of two-bid system these forms shall be examined after opening of the Price Bids of the technically qualified bidders.

### 1.26 Responsiveness of Bids

1.26.1. Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:

| (a) | affects in any substantial way the scope, quality, or performance of the Goods and Related |
|-----|--|
|     | Services specified in the Tender; OR   |
| (b) | limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's    |
|     | rights or the Bidder's obligations under the Proposed Contract; <b>OR</b>                  |
| (c) | if rectified, would unfairly affect the competitive position of other bidders presenting   |
|     | substantially responsive bids.   |

- 1.26.2. The Purchasers' determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- **1.26.3.** If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.

### 1.27 Non-Conformity, Error and Omission

- 1.27.1. Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.
- 1.27.2. Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- **1.27.3.** Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
  - (a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
     (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
     (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 1.27.4. Provided that a bid is substantially responsive, the purchaser may request that a bidder may confirm the correctness of arithmetic errors as done by the purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its Bid Security may be forfeited.

### 1.28 <u>Examination of Terms & Conditions, Technical Evaluation</u>

- 1.28.1. The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.
- 1.28.2. The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with **ITB Clause**1.14, to confirm that all requirements specified in Chapter 4 of the Bidding Documents have been met without any material deviation or reservation.
- 1.28.3. If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 1.26, it shall reject the Bid.

### 1.29 Conversion to Single Currency

To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers on the date of bid opening in the case of single bid and the rates prevalent on the date of opening of the Price Bids in case of two-bid. For this purpose, exchange rate notified in <a href="www.rbl.org">www.rbl.org</a> would be used by the purchaser.

# 1.30 Evaluation and comparison of bids

- **1.30.1.** The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
- 1.30.2. To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology will be used.
- 1.30.3. The bids shall be evaluated on the basis of final landing cost which shall be arrived as under:

#### (a) For Goods manufactured within India

| i)   | The price of the goods quoted Ex-works including taxes already paid.                             |  |
|------|--|--|
| ii)  | GST and other taxes like LBT / Octroi etc. which will be payable on the goods if the contract is |  |
|      | awarded.   |  |
| iii) | The charges for inland transportation, insurance and other local services required for           |  |
|      | delivering the goods at the desired destination as specified in the price schedule form.         |  |
| iv)  | The installation, commissioning and training charges including any incidental services, if any   |  |
|      | as given in Scope of Supply (Chapter 4)  |  |

### (b) For Goods manufactured abroad

- i) The price of the goods, quoted on FCA (named Airport abroad) or FOB (named port of shipment), as specified in the price schedule form.
   ii) The charges for insurance and transportation of the goods to the port / place of destination i.e. CIP/CIF Price.
   iii) The agency commission charges payable to Indian agent in Indian rupees, if any.
   iv) The installation, commissioning and training charges including any incidental services, if any
- 1.30.4. The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF / CIP basis respectively. However, the CIF / CIP prices quoted by any foreign bidder shall be loaded further as under:-
  - (a) Towards customs duty and other statutory levies-as per applicable rates.
  - (b) Towards custom clearance, inland transportation and other incidental charges etc.- 2% of the CIF / CIP value.

**Note:** Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offers shall be rejected as incomplete.

- 1.30.5. In case of Purchase of many items against one tender, which are not inter- dependent or, where compatibility is not a problem, normally the comparison would be made on ex-works, (in case of indigenous items) and on FOB / FCA (in the case of imports) prices quoted by the firms for identifying the lowest quoting firm for each item.
- 1.30.6. Orders for Imported Goods need not necessarily be on FOB / FCA basis rather it can be on the basis of any of the Incoterms latest edition as may be amended from time to time by the ICC or any other designated authority and favourable to IITM.
- 1.30.7. Wherever the price quoted on FOB / FCA and CIF / CIP basis are the same, the Contract would be made on CIF / CIP basis only.
- 1.30.8. The GCC and the SCC shall specify the mode of transport i.e. whether by air / ocean / road / rail.

# 1.31 Comparison of Bids

The Purchaser shall compare all substantially responsive bids to determine the lowest valuated bid, in accordance with **ITB Clause1.30**.

1.31.1 This Institute is following and abide with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCl Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and subsequent amendments

to the order. Accordingly preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.

### 1.32 Contacting the Purchaser

- 1.32.1. Subject to ITB Clause 1.24, 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.
- **1.32.2.** Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

### 1.33 Post qualification

- 1.33.1. In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in **ITB Clause 1.13**.
- 1.33.2. The determination will take into account the Eligibility& Qualification criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.33.3. An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

### F. Award of contract

### 1.34 Negotiations

Normally, there shall not be any negotiation. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive bidder. Counter offers tantamount to negotiations, shall be treated at par with negotiations.

### 1.35 Award Criteria

Subject to ITB Clause 1.37, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily. The details of the award would be hosted on the website of the Purchaser.

# 1.36 <u>Purchaser's right to vary Quantities at Time of Award or later</u>

The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Chapter 4 without any change in unit price or other terms and conditions. Further, at the discretion of purchaser, the quantities in the contract may be enhanced by 25% within the delivery period without any change in unit price or other terms and conditions.

### 1.37 Purchaser's right to accept any Bid and to reject any 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.

### 1.38 Notification of Award

- 1.38.1. Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by cable or telex or fax or e mail that the bid has been accepted and a separate purchase order shall follow through post.
- 1.38.2. Until a formal contract is prepared and executed, the notification of award should constitute a binding contract.
- 1.38.3. Upon the successful Bidder's furnishing of the signed Contract Form and Performance Security pursuant to ITB Clause 1.41, the Purchaser will promptly notify each unsuccessful Bidder and discharge its bid security.

### 1.39 Signing of Contract

- 1.39.1. Promptly after notification, the Purchaser shall send the successful Bidder the Purchase Order.
- **1.39.2.** Within **fourteen (14) days** of date of the Purchase Order, the successful Bidder shall enter into Contract Agreement as per Chapter 7.

### 1.40 Order Acceptance

- 1.40.1. The successful bidder should submit Order acceptance within 14 days from the date of issue of Purchase Order, failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to ITB Clause1.15.11.
- 1.40.2. The order acceptance must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order acceptance and submission of Performance Security (PS). Even after extension of time, if the order acceptance / PS are not received, the contract shall be cancelled and limited tenders irrespective of the value shall be invited from the responding firms after forfeiting the bid security of the defaulting firm, where applicable, provided there is no change in specifications. In such cases the defaulting firm shall not be considered again for re-tendering in the particular case.

### 1.41 Performance Security

Within **14 days** of receipt of the notification of award / Purchase Order as per the GCC Clause 2.12, the Supplier shall furnish Performance Security for the amount specified in SCC, valid for the time 60 days after the warranty period.

# **CONDITIONS OF CONTRACT**

# A. GENERAL CONDITIONS OF CONTRACT

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Note: The General Conditions of Contract shall form the part of Purchase Order / Contract.

### **A.GENERAL CONDITIONS OF CONTRACT**

### 2.1. <u>Definitions</u>

The following words and expressions shall have the meanings hereby assigned to them:

| Sr. | Words /               | Meaning   |
|-----|-----------------------|---|
| No. | Expressions           | mouning .   |
| (a) | Contract              | The Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein. |
| (b) | Contract<br>Documents | The documents listed in the Contract Agreement, including any amendments thereto.   |
| (c) | Contract Price        | The price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.                                    |
| (d) | Day                   | Calendar day  |
| (e) | Completion            | The fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.   |
| (f) | GCC                   | The General Conditions of Contract.   |
| (g) | Goods                 | All of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract   |
| (h) | Services              | The services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.                              |
| (i) | SCC                   | The Special Conditions of Contract.   |
| (j) | Subcontractor         | Any natural person, private or government entity, or a combination of the above, to which any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.                 |
| (k) | Supplier              | The natural Person, Private or Government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.                             |
| (I) | Purchaser             | The Director, The Indian Institute of Tropical Meteorology (IITM), Pune an autonomous body under Ministry of Earth Sciences (MoES), Govt. of India.as specified in SCC  |
| (m) | The final destination | The place named in the SCC.   |

# 2.2 <u>Contract Documents</u>

- 2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.
- 2.2.2 Successful bidder shall have to enter into Contract Agreement on Rs.500/- non judicial stamp paper as per Contract Form given in Chapter 7 within 14 days of placement of Purchase Order having value above Rs. 25 lakh or equivalent amount in Foreign Currency.

### 2.3 Fraud and Corruption

The purchaser requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

(a) The terms set forth below are defined as follows:

| (4.) | .,                  |   |  |
|------|---------------------|---|--|
| I    | Corrupt practice    | The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution |  |
| II   | Fraudulent practice | A misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract   |  |
| III  | Collusive practice  | A scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, non-competitive levels                    |  |
| IV   | Coercive practice   | Harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract           |  |

(b) The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

### 2.4 <u>Joint Venture, Consortium or Association/Amalgamation/Acquisition, Patent Indemnity etc.</u>

If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

### 2.4.1. Amalgamation/Acquisition etc.:

In the event the Manufacturer/Supplier proposes for amalgamation, acquisition or sale its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfilment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. You may confirm this condition while submitting the bid.

# 2.4.2 Indemnity Bond

In order to safeguard the interest of IITM, the supplier should submit Indemnity Bond as given in Chapter-8 (Annexure-J) on Rs.500/- non judicial stamp paper within 14 days of placing of the order for Purchase Order having value above Rs. 25 lakh or equivalent amount in Foreign Currency.

### 2.4.3 Patent Indemnity

a) The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.4.3(a), indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

| (I)  | the installation of the Goods by the Supplier or the use of the Goods in India |
|------|--|
|      | AND  |
| (II) | the sale in any country of the products produced by the Goods                  |

b) If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

### 2.5 Scope of Supply

Scope of Supply (i.e. the Goods to be supplied and Related Services to be performed)shall be as specified in the Chapter-4 clause 4.2

### 2.6 Suppliers' Responsibilities

The Supplier shall supply all the Goods and perform all Related Services included in the Scope of Supply-Clause 2.5 of the GCC and the Delivery &Completion Schedule, as per GCC Clause 2.15 relating to delivery and document.

# 2.7 Contract price

Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

### 2.8 Copy Right

The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party

### 2.9 Application

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

### 2.10 Standards

The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, 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.

### 2.11 Use of Contract Documents and Information

- 2.11.1 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.
- 2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3 Any document, other than the Contract itself, enumerated above 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.

### 2.12 <u>Performance Security (PS)</u>

- 2.12.1 Within 14 days of receipt of the notification of award of contract / Purchase Order, the Supplier shall furnish performance security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS should be kept valid till such time the PS is submitted.
- 2.12.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 2.12.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.
- 2.12.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer / bidder.
- 2.12.5 The Performance security shall be in one of the following forms:

| (a) | A Bank guarantee or stand-by Letter of Credit issued by a Nationalized / Scheduled bank  |
|-----|--|
|     | located in India or a bank located abroad in the form provided in the bidding documents. |
|     | OR   |
| (b) | A Banker's cheque or Account Payee demand draft in favour of the purchaser.              |

- 2.12.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 2.12.7 In the event of any contract amendment, the supplier shall, within 14 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 2.12.8 The order confirmation should be received within 14 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order acceptance and PS are

not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the bid security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re-tendering in the particular case.

2.12.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, and then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

# 2.13 <u>Installation, Commissioning, Demonstration, Inspections and Tests</u>

Bidder shall be responsible for Installation, Commissioning, Demonstration, Inspections and Tests wherever applicable and for after sales service during the warranty and thereafter as specified in Chapter 4.

### 2.14 Packing

- 2.14.1. 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.
- 2.14.2. 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, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

### 2.15 Delivery and Documents

2.15.1. Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier are as given below or /and as specified in SCC.

| <b>Details of Shipping and other Documents</b> to be furnished by the Supplier are : |   |  |
|--|---|--|
| A)   | For goods manufactured or supplied from within India  |  |
|  | Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of  |  |
|  | dispatch and also supply following documents by registered post / speed post and copies thereof   |  |
|  | by FAX/email  |  |
| (a)  | Three copies of Supplier's Invoice indicating, inter-alia description and specification of the goods,   |  |
|  | quantity, unit price, total value   |  |
| (b)  | Packing list  |  |
| (c)  | Certificate of country of origin  |  |
| (d)  | Insurance certificate, if required under the contract   |  |
| (e)  | Railway receipt/Consignment note  |  |
| (f)  | Manufacturer's warrantee certificate and in-house inspection certificate, if any  |  |
| (g)  | Inspection certificate issued by purchaser's inspector, if any  |  |
| (h)  | Any other document(s) as and when required in terms of the contract   |  |
| NOT  |   |  |
| 1  | The nomenclature used for the item description in the invoice(s), packing list(s) and the delivery  |  |
|  | note(s) etc. should be identical to that used in the contract. The dispatch particulars including the   |  |
|  | name of the transporter should also be mentioned in the Invoice(s).   |  |
| 2  | The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses. |  |
| B)   | For goods manufactured or supplied from abroad  |  |
|  | Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of  |  |
|  | dispatch and also supply following documents by Registered Post / courier and copies thereof by   |  |
|  | FAX.  |  |
| (a)  | Three copies of supplier's Invoice giving full details of the goods including quantity, value, etc.   |  |
| (b   | Packing list  |  |
| (c)  | Certificate of country of origin  |  |
| (d)  | Manufacturer's warrantee and Inspection certificate, if any   |  |
| (e)  | Inspection certificate issued by the Purchaser's Inspector, if any  |  |

- Insurance Certificate, if required under the contract Name of the Vessel / Carrier (g) (h) | Bill of Lading / Airway Bill Port of Loading Date of Shipment (j) Port of Discharge & expected date of arrival of goods Any other document(s) as and when required in terms of the contract NOTE: The nomenclature used for the item description in the invoice(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s). The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses. The clearing of the consignment at Mumbai Airport shall be done by our authorized Custom House Agents (CHA). The corresponding shipping documents may be forwarded to them accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched. If there is delay in clearing of the consignment for not giving timely pre-alert then demurrage (Ware house charges), if applicable has to be refunded to us.
- 2.15.2. The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce (ICC), Paris.
- 2.15.3. The mode of transportation shall be as specified in SCC.
- 2.15.4. The Bidders may please note that the delivery of the system should be strictly within delivery schedule mentioned in the Chapter-4 / Purchase Order.
- 2.15.5. Goods should not be dispatched until the vendor receives a firm Purchase Order

### 2.16 Insurance

- 2.16.1. Indigenous goods, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.16.2. Where delivery of the goods is required by the purchaser on CIF / CIP basis for imported goods or FOR destination for Indigenous goods, the supplier shall arrange and pay for Marine / Transit Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, in the event of any loss or damage.
- 2.16.3. Where delivery is on FOB or FCA basis for imported goods or FOR dispatch station for indigenous goods, then insurance would be arranged by the vendor on behalf of the purchaser and the same will be reimburse to supplier on production of the documentary evidence.
- 2.16.4. The equipments to be supplied will be insured by the supplier against all risks of loss or damage from the date of shipment till such time it is delivered at respective sites in case of Rupee transaction
- 2.16.5. With a view to ensure that claims on insurance companies, if any, are lodged in time, the Bidders and / or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Bidder / Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the Purchaser on the event of the delay.
- 2.16.6. Where delivery is on DDP basis for imported goods, then insurance would be arranged by the supplier on their own responsibility for full coverage of the goods.

### 2.17 Transportation

2.17.1. Where the Supplier is required under the Contract to deliver the Goods on FOB basis, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods on FCA basis,

transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price.

- 2.17.2. Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.17.3. In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.
- 2.17.4. The clearing of the consignment at Mumbai Airport shall be done by our authorized Custom House Agents (CHA) for CIP / CIF consignments. The details of CHA will be given in the Purchase Order. The corresponding shipping documents may be forwarded to them accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched. If there is delay in clearing of the consignment for not giving timely pre-alert then demurrage (Ware house charges), if applicable has to be refunded to us by the Supplier / Indian Agent or the same will be deducted from any payment due to Supplier / Indian Agent against this order or any other Purchase order.
- 2.17.5. Where the shipment of DDP term basis, the supplier will be the sole responsible for clearing of the consignment from Customs Houses and transport of goods to the destination point as specified by the buyer. The customs clearance charges and transport charges will be borne by the supplier.

### 2.18 Incidental Services

The supplier may be required to provide any or all of the services, including training, if any, as specified in **Chapter 4: Clause-4.2.** 

# 2.19 Spare Parts

The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) In the event of termination of production of the spare parts:
  - (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
  - (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

# 2.20 Warranty

- a) The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- b) The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- c) Unless otherwise specified in the SCC, the warranty shall remain valid for Thirty Six (36) months 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 SCC, or for Forty Two (42) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- d) The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.

- e) The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.
- f) The equipment must be supported by a Service Centre manned by the principal vendor's technical support engineers. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. Also it should be possible to contact the Principal's vendor support Centre on a toll free number/web/mail.
- g) An undertaking from the manufacturer is required in this regard stating that they would facilitate the Bidder, Service provider on regular basis with technology / product updates & extend support for the warranty as well.
- h) Supplier will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.
- i) The Principal Supplier must have a local logistics support by maintaining a local spares depot in the country of deployment of the equipment. This is to ensure immediate delivery of spares parts from Principal Supplier of equipment to its channel partner/system integrator.
- j) Details of onsite warranty, Name of Agency that shall maintain during warranty and undertake Annual Maintenance Contract/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign quote, the name of Indian Agent who shall maintain during warranty and AMC beyond warranty shall be given in the Technical Offer.
- k) The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- I) Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- m) If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period 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.
- n) In case the Equipment / System remains non-operational or performs below the desired level for more than 1 week after intimation of the fault in the Equipment / System then Warranty period shall be extended for further period for which Equipment / System remained non-operational or performed below the desired level, without prejudice to any other terms and conditions of the Contract.
- o) The defects, if any, during the warranty period are to be rectified free of charge by arranging free replacement wherever necessary.
- p) In case of any replacement during the warranty period the same shall be made free of cost i.e. DDP for import replacement and/or free delivery to IITM for indigenous replacement. All the duties / taxes relating to these replacements have to be borne by the supplier. Dispatch details of such warranty replacements have to be informed in advance to enable us to provide documents for custom clearance.
- q) Any replacements during warranty period should be free of cost. If the defective item has to be sent back to the Principal Supplier, for such replacements / returns to the Principal Supplier / Indian Agent has to bear documentation charges. If the cost of replacement is upto Rs. 5 Lakh then the documentation charges will be Rs. 5,000 and above Rs. 5 Lakh it is Rs. 10,000. Such charges have to be paid in favour of The Director, IITM, Pune. These charges are only for documentation. Any charges regarding packing, forwarding, freight, insurance, etc. should be borne by the Principal supplier / Indian Agent for returning of defective items .In other words, any warranty replacement has to be done immediately/within a week (7 days) without expecting IITM to export the defective items to Principal supplier for repair/replacements. All charges involved for re-export of defective items have to be borne by Principal supplier / Indian Agent.

### 2.21 Terms of Payment

- 2.21.1. The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.21.2. 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 Delivery and document Clause of the GCC and upon fulfilment of other obligations stipulated in the contract.
- 2.21.3. Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the Invoice or claim by the Supplier.
- 2.21.4. Payment shall be made in currency as indicated in the contract.

### 2.22 Change Orders and Contract Amendments

2.22.1. The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC 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.  |
| e) | The delivery schedule.  |

- 2.22.2. 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 ascertained within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- 2.22.3. No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

### 2.23 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.

### 2.24 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 the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.

### 2.25 Extension of time

- 2.25.1. Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the Delivery schedule specified by the Purchaser.
- 2.25.2. 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 penalty, in which case the extension shall be ratified by the parties by amendment to the Contract.
- 2.25.3. Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

### 2.26 Penalty clause

Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver 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 the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable.

### 2.27 Termination for Default

- 2.27.1. 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 contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time:
  - (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 or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract.
- 2.27.2. In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
  - (a) The Performance Security/EMD will be forfeited;
  - (b) The Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
  - (c) However, the supplier shall continue to perform the contract to the extent not terminated.

# 2.28 Force Majeure

- 2.28.1. Notwithstanding the provisions of GCC Clauses relating to Extension of Time, Penalty and Termination for Default the Supplier shall not be liable for forfeiture of its Performance Security, 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.
- 2.28.2. For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.28.3. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. 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.
- 2.28.4. If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

### 2.29 <u>Termination for Insolvency</u>

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.

### 2.30 Termination for Convenience

- 2.30.1. The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. 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.
- 2.30.2. 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. For the remaining Goods, the Purchaser may elect:

| (a) | To have any portion completed and delivered at the Contract terms and prices ;           |
|-----|--|
| ` , | and / or   |
| (b) | To cancel the remainder and pay to the Supplier an agreed amount for partially completed |
|     | Goods / Services and for materials and parts previously procured by the Supplier.        |

### 2.31 Settlement of Disputes

- 2.31.1. 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.
- 2.31.2. If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.31.3. The dispute settlement mechanism / arbitration proceedings shall be concluded as under:
  - (a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Secretary, Ministry of Earth Sciences, Govt. of India and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to the Contract.
  - (b) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration In accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
- 2.31.4. The venue of the arbitration shall be the place from where the Purchase Order or Contract is issued.
- 2.31.5. Notwithstanding any reference to arbitration herein,

| (a) | the parties shall continue to perform their respective obligations under the Contract unless |
|-----|--|
|     | they otherwise agree; and  |
| (b) | the Purchaser shall pay the Supplier any monies due the Supplier.                            |

# 2.32 Governing Language

The Contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

### 2.33 Applicable Law / Jurisdiction

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

### 2.34 Notices

- 2.34.1. Any notice given by one party to the other pursuant to this contract / order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or / and confirmed in writing to the other party's address specified in the SCC.
- 2.34.2. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### 2.35 Taxes and Duties

- 2.35.1. For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.
- 2.35.2. For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture / production.
- 2.35.3. If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- 2.35.4. All payments due under the contract shall be paid after deduction of statutory levies (at source) (like ESIC, IT, etc.) wherever applicable.
- 2.35.5. IITM is exempted from paying LBT & hence supplier supplying from outside Pune Municipal limits should quote prices excluding LBT.

### 2.36 Right to use Defective Goods

If after delivery, installation and within commissioning & acceptance and within warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

### 2.37 Protection against Damage

The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:

- (a) Voltage 230 volts Single phase or 415 Volt for 3 phase (±10%)
- (b) Frequency 50 Hz.

### 2.38 <u>Site preparation and installation</u>

The Purchaser is solely responsible for the construction of the equipment sites unless otherwise specified in Chapter 4 in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchaser's site immediately after notification of award / contract.

# 2.39 Integrity Pact

- 2.39.1. As per directive of the CVC all organizations including IITM have to adopt an Integrity pact (IP) to ensure transparency, equity and competitiveness in major Public procurement having procurement value above Rs.5 Crore. The integrity pact envisages an agreement between the prospective bidders / vendors with the buyer committing the persons / officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. Only those bidders / vendors, who are willing to enter in to such an integrity pact with the Purchaser, would be competent to participate in the bidding.
- 2.39.2. IP also envisages Panel of Independent External Monitors (IEMs) which is constituted by MoES and approved by CVC.
- 2.39.3. The integrity Pact would be effective from the date of invitation of bids till complete execution of the contract.
- 2.39.4. The SCC shall specify whether there is a need to enter into a separate integrity pact or not. If the Integrity Pact is required for the Tender then the format of Integrity Pact is as given in Chapter 8.

# B. SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

|              | . Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.   |
|--------------|--|
| GCC Clause   | Special Condition of Contract (SCC)  |
| GCC 2.1.1(m) | The Purchaser is:  |
|              | THE DIRECTOR   |
|              | INDIAN INSTITUTE OF TROPICAL METEOROLOGY   |
|              | Dr. HOMI BHABHA ROAD, PASHAN,  |
| 000044()     | PUNE-411 008 (MAHARASHTRA)- INDIA  |
| GCC 2.1.1(n) | The Final Destination is:  |
|              | INDIAN INSTITUTE OF TROPICAL METEOROLOGY   |
|              | Dr. HOMI BHABHA ROAD, PASHAN,  |
| GCC 2.12.1   | PUNE-411 008 (MAHARASHTRA)- INDIA  The amount of the <b>Performance Security</b> shall be <b>10% of the contract value,</b> valid up to 60 days  |
| GCC 2.12.1   | after the date of completion of contract obligations including warranty obligations. Further the   |
|              | 10% Performance Security of the total contract value has to be submitted by the supplier for the   |
|              | period of CAMC / AMC plus 60 days in case of the award of CAMC.  |
| GCC 2.14.2   | The marking and documentation within and outside the packages shall be marked with proper  |
|              | paint / indelible ink.   |
|              | (a) Each package should have a packing list within it detailing the Part No.(s), description,  |
|              | quantity etc. (b) Outside each package, the Contract No., the name and address of the Purchaser and the  |
|              | Final destination should be indicated on all sides and top.  |
|              | (c) Each package should be marked as $1/x$ , $2/x$ , $3/x$ x/x, where "x" is the total No. of  |
|              | packages contained in the consignment.   |
|              | (d) All the sides and top of each package should carry an appropriate indication / label /   |
| GCC 2.15.3   | stickers indicating the precautions to be taken while handling / storage.  (a) In case of supplies from within India, the mode of transportation shall be by Air / Rail /                            |
| GCC 2.15.5   | (a) In case of supplies from within India, the <b>mode of transportation</b> shall be by <b>Air / Rail / Road.</b>   |
|              | (b) In case of supplies from abroad, the <b>mode of transportation</b> shall be by <b>Air/Sea</b> .  |
| GCC 2.15     | (a) Mode of Delivery for goods supplied from India: FOR Destination basis  |
|              | (b) Mode of Delivery for goods supplied from abroad : Delivery Duty Paid (DDP) basis   |
|              | Delivery Schedule :  |
|              | (1) Goods should be delivered within 60 Days from the date of opening of Letter of Credit (LC).  |
|              | (2) Supply, installation, commissioning, integration and successful acceptance should be   |
| GCC 2.16.1   | completed within 90 Days from the date of opening of Letter of Credit.  The <b>Insurance</b> shall be for an amount equal to <b>110% of the DDP</b> value of the contract from                       |
| GCC 2.16.1   | "warehouse to warehouse (final destination)" on "all risk basis" including strikes, riots and civil  |
|              | commotion, in addition to <b>storage policy for 60 days</b> is advised so as to ensure the inspection by   |
|              | the Indian Agent at the time of opening the packages.  |
| GCC 2.20 (c) | The period of validity of the Warranty shall be:   |
|              | The warranty shall remain valid for <b>Thirty Six (36)</b> months after the Goods, or any portion thereof  |
|              | as the case may be, have been delivered to and accepted at the final destination or for Forty Two (42) months after the date of shipment from the port or place of loading in the country of origin, |
|              | whichever period concludes earlier.  |
| GCC 2.21.1   | The <b>method and conditions of payment</b> to be made to the Supplier under this Contract shall be as   |
|              | follows:   |
|              | A Payment for Goods supplied from abroad:  |
|              | The LC for 100% value of the contract shall be established after deducting the agency  |
|              | commission payable if any, to the Indian agent from the FOB / FCA value. Payment of  |
|              | foreign currency portion shall be made in currency of the Contract in the following manner:  (a) On delivery of the goods at site and certification of physical receipt by the purchaser: Sixty      |
|              | (60%) percent of the Contract Price of the Goods shipped shall be paid through irrevocable   |
|              | letter of credit opened in favour of the Supplier in a bank in its country, upon submission of   |
|              | documents specified in GCC Clause 2.15.  |
|              | (b) On Acceptance: Forty (30%) percent of the Contract Price of Goods received shall be paid   |
|              | within thirty (30) days of successful installation & commissioning upon submission of claim  |
|              | supported by the acceptance certificate issued by the Purchaser.  (c) Ten (10%) percent of the Contract Price of Goods received, upon acceptance of  |
|              | Performance Security / Performance Bank Guarantee submitted by supplier.   |
|              | , , , , , , , , , , , , , , , , , , ,  |

|            | (d)   | The LC will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If LC is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers' account. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed. |
|------------|-------|---|
|            | В     | Payment for Goods and Services supplied from India:   |
|            |       | The payment shall be made in Indian Rupees, as follows:   |
|            | (a)   | On shipment : Sixty (60%) percent of the Contract Price shall be paid on receipt of the Goods and upon submission of the documents specified in GCC Clause 2.15   |
|            | (b)   | On Acceptance: The remaining <b>Forty (30%)</b> percent of the Contract value shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate issued by the Purchaser.   |
|            | (c)   | <b>Ten (10%)</b> percent of the Contract Price of Goods received, upon acceptance of Performance Security / Performance Bank Guarantee.   |
|            | (d)   | In case of supplies where installation & commissioning is not required payment will be made within 30 days from receipt of items by purchaser as per purchase order contract.   |
|            | (e)   | E-Payment: All payments, IITM prefers to make Electronic Transfers (RTGS) / (NEFT)  |
|            | С     | Support Charges (Manpower Support, CAMC etc.)   |
|            |       | Payment towards support charges will be made on quarterly basis on successfully completion of service support and submission of Performance Bank Guarantee from Commercial Bank for 10% of the total CAMC order value, to be valid for entire CAMC period + two months including extension if any. If no Bank Guarantee is furnished, the 10% payment will be with-held by the Institute for the entire CAMC period.  |
|            | NOTE  |   |
|            |       | All payments due under the Contract shall be paid after deduction of statutory levies at  |
| GCC 2.26.1 |       | source (like ESIC, Income Tax, etc.), wherever applicable.  As time is the essence of the contract, Delivery period mentioned in the Purchase Order   |
| GCC 2.26.1 | (a)   | should be strictly adhered to. Otherwise we will have to forfeit EMD/PS and also LD clause will be applicable /enforced   |
|            | (b)   | If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 0.5% of order value per week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the  |
|            | (c)   | IITM reserves the right to cancel the order in case the delay is more than 10 weeks.  Penalties, if any, will be deducted from the EMD/PS   |
|            | (d)   | The maximum amount of penalty shall be 10% of the contract value.   |
|            | (e)   | The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value.   |
|            | (f)   | Delay in Acceptance:  |
|            |       | In the event of the failure by the vendor to secure acceptance of the Disk Archival Solution by the purchaser after the completion of this contract, the purchaser reserves the option to recover from the vendor as liquidated damages (LD) and not by way of penalty for the period after the said 30 days, until acceptance a sum equivalent to 2% (two percent) of the contract value for each month of the failure of vendor up to a maximum of 10%, to secure acceptance or part thereof without prejudice to the purchaser's other remedies under the contract. This LD will be recovered extra, in addition to the LD as stipulated at (b) of the GCC 2.26.1 clause.                  |
| GCC 2.33.1 |       | place of jurisdiction is Pune, India.   |
| GCC 2.34.1 |       | n <b>otices</b> , the Purchaser's address is<br>DIRECTOR  |
|            |       | AN INSTITUTE OF TROPICAL METEOROLOGY  |
|            | Dr. H | OMI BHABHA ROAD, PASHAN,  |
|            |       | E-411 008 (MAHARASHTRA)- INDIA  |
|            | -     | phone # : 0091-20-25904200  |
|            |       | imile number : 0091-20- 2586-5142<br>nil address: psu.iitm@tropmet.res.in   |
| GCC 2.35   |       | changes in the tax structure within India by Government during execution of the project shall   |
|            |       | orne by the Purchaser.  |

| GCC 2.39.4 | The integrity pact need not to be signed.  |
|------------|--|
| IMP Note   | Director, IITM will be the final authority in any kind of disputes related to this Purchase Order and it |
|            | will be binding on the supplier.   |
|            | All the procurement rules and regulations of Govt. of India will be applicable and will be binding on    |
|            | the supplier.  |

(To be filled by the bidder and enclosed with the Technical Bid)

# **SCHEDULE OF REQUIREMENT**

The Schedule of Requirement must clearly specify the time frame required (Schedule) for delivery of goods and services to be completed by the bidder (in reference to Scope of Supply given in Clause-4.2 of Chapter-4) if the Contract is awarded for the offer / proposal submitted by the bidder in response to this Tender.

| Sr. No.                              | Brief Description of Goods and Services  | Quantity &<br>Unit | Delivery Schedule            |
|--------------------------------------|--|--------------------|------------------------------|
| d of deliv                           | ery shall start from :   |                    |                              |
| Term of c                            | lelivery / Delivery Term :   |                    |                              |
|                                      |  |                    |                              |
| Goods f                              | rom Abroad   |                    |                              |
| Goods f                              | rom India  |                    |                              |
| Goods f                              |  | atch of equipment: | quipment, acceptance test, t |
| Goods f Time fran etc. after Sr. No. | ne required for conducting installation, ce the arrival of consignment or before disp  | atch of equipment: |                              |
| Goods f Time frametc. after Sr. No.  | me required for conducting installation, conthe arrival of consignment or before dispositive Activity  Site Preparation  | atch of equipment: |                              |
| Goods f Time frametc. after Sr. No.  | me required for conducting installation, conthe arrival of consignment or before dispositive Activity  Site Preparation Installation & Commissioning                 | atch of equipment: |                              |
| Goods f Time frametc. after Sr. No.  | ne required for conducting installation, conthe arrival of consignment or before dispositive Activity  Site Preparation Installation & Commissioning Acceptance Test | atch of equipment: | ne Frame                     |

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

### **SPECIFICATIONS AND ALLIED TECHNICAL DETAILS**

(Provisions, Terms and conditions mentioned herein will supersede the terms & conditions mentioned elsewhere in the document)

# 4.1 Specifications of Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution

### 4.1.1 Brief description about MoES

A brief background to the Tender and requirement of Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution at the Indian Institute of Tropical Meteorology, Pune (herein after called as "Institute" or "IITM, Pune") and scope of work has been provided in Appendix-1. Appendix-2 has the address of locations where Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution shall be installed. Appendix-3 has the Technical Conditions to be met by the Vendors. Technical Specifications of Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution are provided in Appendix-4. Selection Criteria is described in Appendix-5 & Appendix-6 has all the Proforma. Annexure- I has proposed tentative layout of IT network infrastructure, Annexure-II has proposed location of Outdoor Locations for Outdoor Access Points. Annexure-III has list of buyback item..

- 4.1.2 Important Technical & Commercial Conditions to be met by the Vendors in Regard to the Offered System- Requirements/Conditions described in various parts of this entire document (all the Appendix, Sections, Sub-Sections in this Tender document, and Benchmark programs) must be complied.
  - Note: 1) Optional items mentioned in the quotation will not be considered for commercial evaluation
    - 2) Items to be supplied from India should be quoted in Indian Currency only.
    - 3) Imported items should be quoted in USD only.

### 4.2 Scope of Supply

Scope of Supply includes the following:

- (i) Supply of the equipment / system as specified in 4.1 above
- (ii) Installation & Commissioning
- (iii) Training as specified below in Appendix 3 point No. 3.9
- (iv) Comprehensive Annual Maintenance Contract for Three years after completion of warranty period as specified in 4.6.
- (v) Buyback of existing equipment as listed at Annexure III

### 4.3 Project Completion Period

Project Should be completed within 90 Days from the date of opening of Letter of Credit (LC)

### 4.4 Delivery Schedule:

- (1) Goods should be delivered within 60 Days from the date of opening of Letter of Credit (LC).
- (2) Supply, installation, commissioning, integration and successful acceptance should be completed within 90 Days from the date of opening of Letter of Credit.

### 4.5 Commercial evaluation of bid

The bid will be treated as **incomplete** if bidder has **not quoted** for all the components given in scope of supply (clause 4.2) and **the incomplete bid will be rejected**. The bidder should also quote for all incidental services. The bid will be commercially evaluated for the components in the scope of supply.

#### 4.6 Incidental Services

### (i) On site Comprehensive Warranty:

- The successful bidder shall provide a Comprehensive Warranty for Three years, after the installation and commissioning of the system. If within a warranty period after installation any such product or component is proven to be defective such product shall be replaced by the manufacturer/successful bidder. Such replacement shall be sole obligation of manufacturer/successful bidder. Successful bidder shall be responsible for payment for the shipping charges (to-and-fro) if the defective product/components are required to be sent to the manufacturer for replacement. Any design defects or installations deficiencies, if noticed during the warranty/maintenance period, shall be rectified promptly by the successful bidder with no cost at all the places, which also includes the field installations.
- Down-time call attendance should be within 24hrs.
- In case the Equipment / System remains non-operational for more than 5 days then
  warranty period will be extended for the equivalent period for which Equipment /
  System remained non-operational. Warranty extension in such case shall be done
  without prejudice to any other Term & condition of the contract

# (ii) Comprehensive Annual Maintenance Contract (CAMC):

- The firm shall quote for Comprehensive AMC for Three years subsequent to completion of warranty period. The firm shall submit the year wise breakup of CAMC charges.
- The bidder should provide comprehensive annual maintenance service (including spares) for Three years after the expiry of warranty period. The price should not be quoted as a percentage of project cost etc., but should be quoted as lump sum amount per year for Three years after the expiry of warranty period.
- The bidder should submit the list of spares stocked at them to provide the Comprehensive AMC Support for Three years. Rate of CAMC will be taken into consideration for deciding L1.

### 1. General Requirements

Indian Institute of Tropical Meteorology, Pune an Autonomous Institute under Ministry of Earth Sciences, Govt. of India is a premiere research Institute to generate scientific knowledge in the field of meteorology and atmospheric sciences that has potential application in various fields such as agriculture, economics, health, water resources, transportation, communications, etc. It function as a national centre for basic and applied research in monsoon meteorology. Institute has a IT network infrastructure and various Wifi zone in the Institute which has been implemented in the year 2010. Now Institute is planning to revamp its IT network infrastructure and also planning to make entire campus as Wifi zone for its research activities. as detailed below;

- (1) Supply, Installation, Commissioning, Integration & Maintenance Of Network Infrastructure solution.
- (2) Supply, Installation, Commissioning, Integration & Maintenance Of Security Surveillance solution
- (3) Supply, Installation, Commissioning, Integration & Maintenance Of Campus wide Wi-Fi Network Solution.

Note: Vendors can inspect the Site during any working day in working hours with prior Intimation before responding to this tender.

#### 1.1 SCOPE OF WORK

The scope of this Disk Archival HPC storage solution procurement will cover the following tasks:

- a. Supply, Installation, Commissioning, Integration & Maintenance Of Network Infrastructure solution to be installed at IITM, Pune as per requirements with the latest hardware, software within the available space and power.
- b. Supply, Installation, Commissioning, Integration & Maintenance Of Security Surveillance Solution to be installed at IITM, Pune as per requirements with the latest hardware, software within the available space and power
- c. Supply, Installation, Commissioning, Integration & Maintenance Of Campus wide WiFi Network Solution to be installed at IITM, Pune as per requirements with the latest hardware, software within the available space and power.
- d. Providing onsite and on systems training to all concerned users at IITM, Pune.
- e. Warranty for three years and Post warranty comprehensive Maintenance for a period of three years as detailed elsewhere in this document.
- f. Buy back of existing IT network equipment's listed at Annexure-III

2. Location (address) of site where Network Infrastructure and Campus wide Wi-Fi Network Solution shall be installed.

Indian Institute of Tropical Meteorology (IITM), Dr. Homi Bhabha Road, Pashan, Pune, India 411 008

### 3. Technical Conditions to be met by the Vendors

Important Technical Conditions to be met by the Vendors in regard to the Offered System-Requirements/Conditions described in various parts of this entire document (all the Chapters, Sections, Sub-Sections in this Tender document) must be complied.

#### 3.1 General

- 3.1.1 Bidders are invited from the OEM/Authorised Distributors. Those who has successfully installed and commissioned minimum 2 similar projects during last 3 year ( last date to count 3 years will be **31.12.2018**) are eligible to quote.
- 3.1.2 The system should be based on modern and latest technology with scalability and easy maintainability. The system should support open standard wherever possible.
- 3.1.3 Project has to be completed on turn-key basis which involves site preparation required for the solution, integrating hardware, system software and application software listed elsewhere in this document by a vendor. The final responsibility for deliverables and maintaining the uptime of shall be of Principle bidder.
- For the same solution either the Indian Agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. Further, to maintain sanctity of tendering system one Indian agent cannot represent two different foreign principals in one tender.
- 3.1.5 The price details of each line item of hardware, software and services should be provided separately.
- 3.1.6 Complete technical details of the Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution and the peripherals and software should be provided for each item separately.
- 3.1.7 The vendor should supply the details of the functions/capabilities of all solution components in the technical bid to ensure that the equipment being proposed is in conformity with the specifications.
- 3.1.8 The proposed Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution should be modular in nature so that the modules can be introduced or withdrawn whenever necessary and future expansion/activities can be introduced in a smooth manner without any major changes to the existing system.
- 3.1.9 The bidder should provide road map for technology development for next five years for proposed Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution.
- 3.1.10 In case Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution as offered deviates from the specifications laid down in the APPENDIX 4 of this tender document the bidder should describe in what respect and to what extent the equipment offered by them differs/ deviates from the specifications. Bidder must state categorically whether or not his offer is exact to tender specifications and indicate deviations, if any, failing which his offer will be ignored. Bidder shall make available to the purchaser full information and technical documents (along with softcopy) on the equipment being offered along with the proposal.
- 3.1.11 Warranty for Hardware. Software and system for a period of three years from the date of acceptance of the equipment is to be provided.
- 3.1.12 The post warranty maintenance support for at least 3 years in respect of spares, hardware, software and system is to be provided by the vendor. The price performance of the system will also be determined based on the annual maintenance cost for hardware and software and manpower as required during warranty support as quoted by the vendor to meet 99.5% (measured Quarterly) uptime performance.
- 3.1.13 Bidders shall furnish details of the back-up engineering and systems support that will be available to the purchaser. The maintenance of the system, after expiry of the relevant warranty period, spare parts and back-up maintenance support must be guaranteed.
- 3.1.14 Proposed OEM should have their own service centre and service depot at Pune location.
- 3.1.15 Any software bugs noticed after the acceptance test should be rectified by the vendor without any

- additional charge as and when intimated or identified.
- 3.1.16 Bidders shall enumerate the operational experience in similar deployment of **Network Infrastructure**, **Security Surveillance and Campus wide Wi-Fi Network Solution** offered along with names, addresses, FAX and phone numbers, and e-mail of user installations in Annexure -H.
- 3.1.17 Bidder should furnish his complete address along with the telephone, telex, e-mail, and telefax numbers for the purpose of further correspondence pertaining to the tender.
- 3.1.18 Each copy of the tender should be a complete document and should preferably be bound as a volume. Different copies must be bound separately. Soft copy of the tender document in CD should be submitted.
- 3.1.19 Software and optional hardware which will be supplied free and which will be charged for should be indicated separately. Purchaser will have the right to make multiple copies of software and also to use the same at other locations within the organization. Optional cost for these may be indicated. Restrictions on software usage, if any, should also be indicated. Extent of free on-site support for software as well as advice and guidance for development and implementation of customer systems should be indicated.
- 3.1.20 Training of personnel on **Network Infrastructure, Security Surveillance and Campus wide WiFi Network Solution** It is necessary for officers of the purchaser to be trained to support the System, depending on whether or not they already have experience of the actual system chosen as a result of this tender.
- 3.1.21 To supply on a continual basis and without limitation, field engineering and software releases related to the equipment for at least three years after warranty period.
- 3.1.22 To provide operational manuals including application software and hardware manuals, for each system and necessary literature for operational maintenance of the system.
- 3.1.23 To make available at no additional cost all software (programme product amendments, extensions and general releases) that are distributed by the Manufacturer, for utilization on the equipment and assist in making the software operational.
- 3.1.24 At any time prior to the deadline for submission of the tender, the purchaser may, for any reason, issue clarifications regarding the tender which will be notified to all prospective bidders who have received the tender document and will be binding on them.
- 3.1.25 The tender prepared by the bidder and all the correspondence and documents relating to the tender exchanged by the bidder and the Purchaser, shall be written in the English language.
- 3.1.26 For any third party item for which vendor may quote (e.g. hardware and software) as a part of the **Network Infrastructure**, **Security Surveillance and Campus wide Wi-Fi Network Solution**, a back to back arrangement with O.E.M. (Original Equipment Manufacturer) should be in place and evidence for the same must be submitted by the vendor.
- 3.1.27 The bidder is strongly encouraged to visit the existing site to have an idea of availability of space and other infra-structure at the respective institutions for which the **Network Infrastructure**, **Security Surveillance and Campus wide Wi-Fi Network Solution** are procured.
- 3.1.28 After inspecting the sites, the vendor should provide the pre-requisites, specifications, Loading, capacity, etc as and if applicable separately for each centre along with the technical bid.

### 3.2 Acceptance Test

- 3.2.1 Vendor shall conduct acceptance tests of the system at the installation sites.
- 3.2.2 Detailed Acceptance Test procedure for acceptance of the entire solution supplied shall have to be completed within 30 days of delivery of system.
- 3.2.3 For carrying out Acceptance tests vendor will arrange free of cost all test equipment necessary to complete Acceptance test.

#### 3.3 Acceptance Test Procedure

Acceptance tests shall be carried out at each site of installation separately.

The procedure under which the Acceptance Test for the offered system will be conducted is defined below:

- 3.3.1 The purpose of the acceptance test is to define the criteria which the Purchaser shall use to verify the offered system is functioning properly and to accept the said System as satisfying all the necessary conditions. Prior approval of this procedure will prevent confusion and uncertainty during actual Acceptance Test.
- 3.3.2 Acceptance Tests are to be conducted as below;

### 3.3.2.1 Final Acceptance Test at installation site.

The Final Acceptance Test (Site Test) after completion of installation will take place at the installation sites at respective MoES institutes on mutually agreed dates in three phases as listed below-

- Phase 1 Hardware Tests
- **Phase 2 Functional Tests**
- **Phase 3 Performance Tests**
- 3.3.2.2 These tests will be performed as described in accordance with the following Acceptance Test Procedure.
- 3.3.2.3 Details of all the Functional Tests to be carried out on the entire solution will be provided by the vendor and will be approved by the Purchaser at the time of signing the agreement.
- 3.3.2.4 Final Acceptance Tests after completion of installation at the installation site should be completed within period of 30 days after delivery and will be carried out at the installation site by the vendor in the presence of Purchaser or any other person or agency designated by the Purchaser.

#### 3.3.2.5 Hardware tests are based on complete configuration.

The main parts of the tests are:

Standard test procedures for each equipment and operation of the system for 72 consecutive hours, 24 hours a day at 99.5% uptime efficiency. Uptime efficiency will be computed as follows:

Uptime X 100

Total time for which equipment is tested

Time lost due to raw power/environmental failures will not be included in the total time

In case the required uptime efficiency is not obtained, the equipment's will be run for an additional 72 hours till the efficiency of 99.5% is obtained. The manufacturer will be given additional two chances to attain the uptime with appropriate modification. If the system fails to attain the required uptime even after three trails then MoES reserves the right to reject the equipment.

The tests will be carried out according to procedures and criteria laid down in test procedures.

### 3.3.2.6 Functional Tests

These will be carried out in accordance with the document on functional specifications as laid down in test procedures proposed by vendor and approved by Purchaser and will include all the functions specified and agreed to by both Purchaser and the vendor.

### 3.3.2.7 System Acceptance Test

The objective is to test the system capability and performance of the solution as committed by the vendor.

The acceptance tests are to be carried out by the vendor who will be responsible for the supply of all test equipment's, free of cost, needed to complete the Acceptance Test.

Acceptance Tests will be conducted within thirty (30) days, after the arrival of the equipment at specified installation site in India.

The vendor should ensure that Acceptance tests are concluded to Purchaser's satisfaction within the said thirty (30) days from the arrival of the equipment. During the said 30 days the vendor shall repair or replace, at the vendor's cost, the whole or any part of the equipment including software as may be necessary for conclusion of the acceptance tests.

At the conclusion of both the Factory Acceptance Test and the Final Acceptance Test, the respective signoff forms shall be signed by representatives of the Purchaser and the vendor and the warranty of the equipment will start from next business day.

#### 3.4 Maintenance and other Support Services

Equipment maintenance service after the warranty period is to be guaranteed by the Principle Bidder.

Warranty regarding the quality shall be given in the Proforma-08 and should be signed by the bidder and enclosed with the offer.

#### 3.5 Support and Services

(a) The selected bidder must submit SLA in line with the contract along with escalation matrix to the senior most level.

### 3.6 Total Cost of Ownership (TCO)

All the vendors should submit all the power ratings and cooling requirements supported by their technical details in the technical bid. The TCO of the **Network Infrastructure**, **Security Surveillance and Campus wide Wi-Fi Network Solution** shall be arrived at by using the following formula;

TCO = Cost of the entire Solution, installation, deployment, successful configuration, migration, training, buyback reduction, onsite manpower cost, 3 years comprehensive onsite warranty and Post warranty CAMC for three years including manpower cost.

#### 3.7 Spare Parts and Testing Equipment

Availability and supply of sub-assemblies, kits of parts, components and spare parts for at least five (07) years from the expiry of the warranty period to be guaranteed by the vendor.

#### 3.8 Site Preparation

Vendor has to inspect the site and ensure that his proposed solution can be installed within the existing environmental conditions, electrical components (including generators & UPS) and available air/water conditioning units. If the present available supporting infrastructure is/are not adequate, vendor has to submit the details of items required to meet the inadequacy and the cost of such remedies and items including installation charges with warranty & AMC inline with the proposed solution should clearly be stated in Proforma 5. Since the solution is on turnkey basis, all such costs will be accounted in calculation of TCO as per Clause 4.6. The vendor should mention his installation plan clearly as per the existing/proposed site specific conditions in his technical bid.

#### 3.9 Training

Bidders must include within the tender costs a detailed proposal for onsite training at. IITM, Pune with sufficient understanding of the internal working of the tendered software and hardware systems to enable them to provide effective day-to-day and emergency support. Details of the training required:

- i) System familiarization
- ii) System operation

- iii) Software Components
- iv) Solution maintenance and upgrades

The proposal should clearly state the topics to be covered and the duration of the course. This training should be in addition to the training on efficient use of the system to be imparted at both the sites after the installation and commissioning of the system. The training plan should be so devised as to train the personnel to enable them, inter-alia, ultimately to impart training to others and should be conducted in English. The detailed programme/period for each component should be provided along with the tender as in proforma 6.

### 3.10 Indian Expenses

All expenses made in India should be quoted in Indian Rupees only.

### 4. Technical Specifications

#### 4.1 Overview

Institute planning to upgrade/refresh it's IT network infrastructure according to proposed network layout (Appendix -I ) to connect various endpoints (PC's/Laptops/workstation's) particularly with Institute's HPC System's and various IT enabled services like Web, Mail, FTP, Intranet etc.

Further Institute is planning to augment Campus wide Wi-Fi network solution to connect Institute's various Wi-Fi users to Institute network. Also Institute proposed to augment Security Service solution. The tentative locations with required Indoor, Outdoor Access Points and Security Cameras has been listed at Appendix -II.

Vendors should consider all the licenses required for full capacity for above both solutions.

Vendors are highly encouraged to inspect the Site during any working day in working hours with prior Intimation before responding to this tender.

# 4.2 Eligibility Criteria for Bidder

| 1. | The bidder should be a company registered in India as per Company ACT and should  |
|----|---|
|    | have valid GST registration. Supporting document in this regards should be submitted along with tender document.  |
| 2. | The bidder should have experience of minimum 5 years business in India for wired & wireless network, surveillance equipment proposed in the tender document.  |
| 3. | The bidder should have operating profit during last three financial years. Audited Balance sheet or Profit/Loss statement of the firm to be provided of last three financial years i.e. 2015-16, 2016-2017 & 2017-2018.   |
| 4. | The bidder should have implemented similar infrastructure "Network setup, Security Surveillance System & Wireless network infrastructure" on the proposed / similar OEM hardware at minimum <b>two sites in last two years</b> (Two year's period will be reckoned as of last date of submission of the bid. The bidder has to submit PO as supporting documents for the same either in India or abroad). |
| 5. | The companies or firms, bidding for the tender, should have not been black listed by any of Government Authority or Public Sector Undertaking (PSUs). The bidder shall give an undertaking (on their letter head) that they have not been black listed by any of the Govt. Authority or PSUs. In case, in the past, the name of their Company was black listed by any of the Govt.                        |
| 6. | Bidder needs to furnish the authorization letter from Original Equipment Manufacturer in case of authorized partner/representative/system integrator.   |

# 4.3 Technical Specifications of the of the proposed IT network infrastructure, Security Surveillance and Campus wide Wi-Fi Network..

|    | Specification for the IT network infrastructure, Security Surveillance and Campus wide Wi-Fi Network – Qty. 1 Job   |
|----|---|
| 1. | Proposed Core architecture should be latest and should have been released in last two year. Should have support period for minimum 8 years.   |
| 2. | The entire networking solution should be from single OEM for seamless integration, control, management except CCTV Security Surveillance System. Vendor may quote different OEM devices for CCTV Security Surveillance System. However CCTV Security Surveillance System should be compatible and seamlessly integrated with proposed solution. |
| 3. | Bidder should have sales and support office at Pune with experts/specialists to handle Installation, Configuration and solving all types of issues in time.   |
| 4. | All the products must conform to open standards. Where proprietary standards or interfaces are used these must be highlighted in the suppliers response under that requirement.   |
| 5. | Bidder has to quote for entire project being a turnkey project failing which leads to disqualification.   |
| 6. | The switches should support Software Defined Network (SDN) capability which allows the  |

| separation of data (packet forwarding) and control (rotuting decision) paths, to be controlled by an SDN Controller. Institute is likely to implement it in near future. The proposed networking solution should be SDN ready.  7. Solution should be under warrantly for 3 years after completing warranty period of 3 years. Bidder has to quote for CAMC for 3 years after completing warranty period of 3 years. Bidder has to provide back to back arrangement with DEM for such service (Documentary Evidences need to be submitted) The cost of CAMC will considered in calculating TCO and evaluating Lowest Bid. However Institute reserve rights to award the CAMC.  A Core Chassis Switches : 3 Nos.  (a) Generic Requirements for Core Switches  1. The Core Switches should be Modular chassis  2. Supervisor engine / Management Engine should have minimum DRAM of 8GB and FLASH of 8 GB  3. Switch should have N+1 power supply redundancy  4. The Switch should maintain the performance and Throughput without any performance degradation in the event of failure of the Supervisor/Management engine.  5. The Switch should support for IPV4 and IPV6 routing, OSPY3, BGPV4, IPV4 & IPV6 uRPF, Dynamic ARP Inspection, IP source guard, Multicast Routing from Day one  6. The Switch should support for In service software upgrade without any loss in the production network traffic and control plane.  8. The Switch should support for in service software upgrade without any loss in the production network traffic and control plane.  8. The Switch should support hot-swappable fan trays  10. The Switch should support not swappable fan trays  11. The Switch should support for loss production redundant one swappable fan trays  12. The Switch should support Medundant not-swappable Power Supplies  13. The Switch should support more familians and removal of line cards  14. The Switch should support for line cardy modules to avoid 40G link failure in case of hyw failure of line cardy/module).  15. The Switch should support line Cards of Total no of 110 10G SPF+ Uplink  |  |  |
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| proposed networking solution should be SDN ready.  7. Solution should be under warranty for 3 years  8. Bidder has to quote for CAMC for 3 years after completing warranty period of 3 years.  8. Bidder has to provide back to back arrangement with OEM for such service (Documentary Evidences need to be submitted) The cost of CAMC will considered in calculating TCO and evaluating Lowest Bid. However institute reserve rights to award the CAMC.  A Core Chassis Switches: 3 Noes.  (a) Generic Requirements for Core Switches  1. The Core Switches should be Modular chassis  2. Supervisor engine / Management Engine should have minimum DRAM of 8GB and FLASH of 8 GB  3. Switch should have N-1 power supply redundancy  4. The Switch should maintain the performance and Throughput without any performance degradation in the event of failure of the Supervisor/Management engine.  5. The Switch should support for IPV4 and IPV6 routing, OSPFV3, BGPV4, IPV4 & IPV6 uRPF, Dynamic ARP Inspection, IP source guard, Multicast Routing from Day one  6. The Switch should support minimum Jumbo Frame size of 9000 bytes  7. The Switch should support minimum Jumbo Frame size of 9000 bytes  7. The Switch should be we support for in service software upgrade without any loss in the production network traffic and control plane  8. The Switch should be managed by single NMS platform  9. The Switch should support moline insertion and removal of line cards  10. The Switch should support holize insertion and removal of line cards  11. The Switch should support moline insertion and removal of line cards  12. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module) to avoid 40G link failure in case of h/w failure of line card/module).  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link f |  | separation of data (packet forwarding) and control (routing decision) paths, to be   |
| <ol> <li>Solution should be under warranty for 3 years</li> <li>Biddder has to quote for CAMC for 3 years after completing warranty period of 3 years. Biddder has to quote for CAMC for 3 years after completing warranty period of 3 years. Bidder has to provide back to back arrangement with OEM for such service (Occumentary Evidences need to be submitted) The cost of CAMC will considered in calculating TCO and evaluating Lowest Bid. However Institute reserve rights to award the CAMC.</li> <li>A Core Chassis Switches: 3 Nos.</li> <li>(a) Generic Requirements for Core Switches</li> <li>The Oore Switches should be Modular chassis</li> <li>Supervisor regine / Management Engine should have minimum DRAM of 8GB and FLASH of 8 GB</li> <li>Switch should have N+1 power supply redundancy</li> <li>The Switch should maintain the performance and Throughput without any performance degradation in the event of failure of the Supervisor/Management engine.</li> <li>The Switch Should support for IPv4 and IPv6 routing. OSPFv3. BGPv4. IPv4 &amp; IPv6 uRPF, Dynamic ARP Inspection, IP source guard, Multicast Routing from Day one</li> <li>The Switch Should support minimum Jumbo Frame size of 9000 bytes</li> <li>The Switch should have support for in service software upgrade without any loss in the production network traffic and control plane</li> <li>The Switch should support online insertion and removal of line cards</li> <li>The Switch should support Degrade splatform</li> <li>The Switch should support Redundant hot-swappable Power Supplies</li> <li>The Switch should support Redundant hot-swappable Power Supplies</li> <li>Hardware and Interface Requirement</li> <li>IITM-ORE Switch</li> <li>Redundant Supervisor Engine / Management Engine</li> <li>1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module).</li> <li>Bredundant Supervisor Engine / Management Engine</li> <li>2*40GE Multi</li></ol>  |  |  |
| 8. Bidder has to quote for CAMC for 3 years after completing warranty period of 3 years. Bidder has to provide back to back arrangement with OEM for such service (Documentary Evidences need to be submitted) The cost of CAMC will considered in calculating TCO and evaluating Lowest Bid. However Institute reserve rights to award the CAMC.  A Core Chassis Switches: 3 10 Kinches.  1. The Core Switches Should be Modular chassis  2. Supervisor engine / Management Engine should have minimum DRAM of 8GB and FLASH of 8 GB  3. Switch should have N+1 power supply redundancy.  4. The Switch should main the performance and Throughput without any performance degradation in the event of failure of the Supervisor/Management engine.  5. The Switch should support for IPv4 and IPv6 routing, OSPFv3, SGPv4, IPv4 & IPv6 uRPF, Dynamic ARP inspection, IP source guard, Multicast Routing from Day one  6. The Switch should support minimum Jumbo Frame size of 9000 bytes  7. The Switch should support minimum Jumbo Frame size of 9000 bytes  7. The Switch should support minimum Jumbo Frame size of 9000 bytes  8. The Switch should support noine insertion and removal of line cards  10. The Switch should support online insertion and removal of line cards  11. The Switch should support noine insertion and removal of line cards  12. 14 YOGE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/v failure of line card/module).  3. 5*24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (II) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/v failure of line card/module).  3. Minimum 2*12 Port 10GE SFPF Supported Line Cards  (II) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and |  |  |
| Bidder has to provide back to back arrangement with OEM for such service (Documentary Evidences need to be submitted) The cost of CAMC will considered in calculating TCO and evaluating Lowest Bid. However Institute reserve rights to award the CAMC.  A Core Chassis Switches: 3 Nos.  (a) Generic Requirements for Core Switches  1. The Core Switches should be Modular chassis  2. Supervisor regine / Management Engine should have minimum DRAM of 8GB and FLASH of 8 GB  3. Switch should have N+1 power supply redundancy  4. The Switch should maintain the performance and Throughput without any performance degradation in the event of failure of the Supervisor/Management engine.  5. The Switch Should support for IPv4 and IPv6 routing, OSPFv3, BGPv4, IPv4 & IIPv6 uRPF, Dynamic ARP Inspection, IP source guard, Multicast Routing from Day one  6. The Switch Should support minimum Jumbo Frame size of 9000 bytes  7. The Switch should have support for in service software upgrade without any loss in the production network traffic and control plane  8. The Switch should have support for in service software upgrade without any loss in the production network traffic and control plane  8. The Switch should support online insertion and removal of line cards  10. The Switch should support online insertion and removal of line cards  11. The Switch should support Redundant hot-swappable Power Supplies  12. If Switch should support Redundant hot-swappable Power Supplies  13. The Switch should support Redundant hot-swappable Power Supplies  14. The Switch should support Redundant hot-swappable Power Supplies  15. *2 Port 10GE SFPF supported Line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  2. *40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. *5 *2 Port 10GE SFPF supported Line Cards  (ii) CocR-core  1. Redundant Supervisor Engine / Management E |  |  |
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| 6. The Switches should support minimum Jumbo Frame size of 9000 bytes  7. The Switch should have support for in service software upgrade without any loss in the production network traffic and control plane  8. The Switch should be managed by single NMS platform  9. The Switch should support notine insertion and removal of line cards  10. The Switch should support hot-swappable fan trays  11. The Switch should support Redundant hot-swappable Power Supplies  (b) Hardware and Interface Requirement  (i) ITM-CORE Switch  1. Redundant Supervisor Engine / Management Engine  2. 12*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Typs and per slot bandwidth capacity up to 480 Gbps.  7. The Switch should support minimum 10 K lpv4 routes  5. The Swi | 0.   | ,  |
| 7. The Switch should have support for in service software upgrade without any loss in the production network traffic and control plane 8. The Switch should be managed by single NMS platform 9. The Switch should support network page in the swappable form of the swappable for the swapp | 6  |  |
| production network traffic and control plane  8. The Switch should be managed by single NMS platform  9. The Switch should support online insertion and removal of line cards  10. The Switch should support hot-swappable fan trays  11. The Switch should support Redundant hot-swappable Power Supplies  (b) Hardware and Interface Requirement  (i) IITM-CORE Switch  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. 5*24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Typs and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should bupport minimum 15 K ACL entries for QoS and Security control  9. The Switch should bupport minimum 15 K ACL entries for QoS and Security control  8. The |  |  |
| 8. The Switch should be managed by single NMS platform 9. The Switch should support holine insertion and removal of line cards 10. The Switch should support holine insertion and removal of line cards 11. The Switch should support Redundant hot-swappable Power Supplies (b) Hardware and Interface Requirement (i) IITM-CORE Switch 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. 5*24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports (ii) CCCR-Core 1. Redundant Supervisor Engine / Management Engine 2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (iii) HPC Core 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (c) Performance 1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps. 2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS) 3. The Switch should support minimum 10 K Npt Routes 5. The Switch should support minimum 15 K ACL entries for QoS and Security control 8. The Switch should support minimum 15 K ACL entries for QoS and Security control 8. The Switch should support minimum 15 K nutlicast ipv4/lpv6 routes 9. The Switch should support minimum 15 K nutlicast ipv4/lpv6 routes 1. The Switch should support minimum 15 K nutlicast ipv4/lpv6 routes 1. The Switch should support minimum 4 K  | <b>'</b> .   |  |
| 9. The Switch should support online insertion and removal of line cards 10. The Switch should support hot-swappable fan trays 11. The Switch should support Redundant hot-swappable Power Supplies (b) Hardware and Interface Requirement (I) IITM-OORE Switch 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports (II) CCCR-Core 1. Redundant Supervisor Engine / Management Engine 2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (III) HPC Core 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (G) Performance 1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps. 2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS) 3. The Switch should support minimum 32 K mac entries 5. The Switch should support minimum 100 K lpv4 routes 6. The Switch should support minimum 15 K ACL entries for QoS and Security control 8. The Switch should support minimum 15 K ACL entries for QoS and Security control 9. The Switch should support minimum 15 K nutlicast ipv4/lpv6 routes 1. The Switch should support minimum 15 K acl entries 1. The Switch should be capable to support combining of two separate physical switch in a single logical unit over 12 & 13 Multipath to support dual bandwidth and active/active configu | 0  |  |
| 10. The Switch should support hot-swappable fan trays  11. The Switch should support Redundant hot-swappable Power Supplies  (b) Hardware and Interface Requirement  (i) IITM-CORE Switch  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. 5*24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 30 K lpv4 routes  6. The Switch should support minimum 15 K ACL entries for QoS and Security control  7. The Switch should support minimum 15 K Multicast ipv4/lpv6 routes  7. The Switch should support minimum 15 K Multicast ipv4/lpv6 routes  9. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  1. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  1. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  9. The Switch should be capable to support combining of two separate physical switch in a sing |  |  |
| 11. The Switch should support Redundant hot-swappable Power Supplies  (b) Hardware and Interface Requirement  (i) IITM-CORE Switch  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K Multicast ipv4/lpv6 routes  7. The Switch should support minimum 15 K Multicast ipv4/lpv6 routes  9. The Switch should be capable to support combining of two separate physical switch in a single logical unit over L2 & L3 Multipath to support dual bandwidth and active/active configuration for the connected network devices  1. The Virtual Clustering switch should support the Standby Supervisor to take over in the event of a failure on the Active Supervi |  | 1.1  |
| (b) Hardware and Interface Requirement (I) IITM-ORE Switch  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module).  3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports (II) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module) to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (III) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (III) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  9. The Switch should bupport minimum 15 K ACL entries for QoS and Security control  8. The Switch should bupport minimum 15 K ACL  |  |  |
| (i) IITM-CORE Switch  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. 5*24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 100 K lpv4 routes  6. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  7. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  1. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  1. The Switch should be capable to support combining of two separate physical switch in a single logical unit over L2 & L3 Multipath to support dual bandwidth and active/active configuration for the connected network devices  2. The Virtual Clustering switch should support the Standby Supervisor to take over in the event of a failure on the Active Supervisor                                       |  |  |
| 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core 1. Redundant Supervisor Engine / Management Engine 2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance 1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tops and per slot bandwidth capacity up to 480 Gbps. 2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS) 3. The Switch should support minimum 32 K mac entries 5. The Switch should support minimum 100 K lpv4 routes 6. The Switch should support minimum 15 K ACL entries for QoS and Security control 8. The Switch should support minimum 15 K multicast ipv4/lpv6 routes 9. The Switch should support minimum 15 K multicast ipv4/lpv6 routes 1. The Switch should support minimum 15 K multicast ipv4/lpv6 routes 1. The Switch should support minimum 15 K multicast ipv4/lpv6 routes 1. The Switch should support minimum 4 K logical interfaces 1. The Switch should support minimum 4 K logical interfaces 1. The Switch should support minimum 4 K logical interfaces 1. The Switch should support minimum 4 K logical interfaces 1. The Switch should support the Standby Supervisor to take over in the event of a failure on the Active Supervisor            |  |  |
| 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (II) CCCR-Core  1. Redundant Supervisor Engine / Management Engine  2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SFF+ Supported Line Cards  (III) HPC Core  1. Redundant Supervisor Engine / Management Engine  2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 15 K lpv4 routes  7. The Switch should support minimum 15 K MacL entries for QoS and Security control  8. The Switch should support minimum 15 K McL entries for QoS and Security control  8. The Switch should support minimum 15 K McL entries for QoS and Security control  9. The Switch should support minimum 15 K multicast ipv4/lpv6 routes  1. The Switch should support minimum 4 K logical interfaces  (d) Chassis Virtualization Features  1. The Switch should be capable to support combining of two separate physical switch in a single logical unit over L2 & L3 Multipath to support dual bandwidth and active/active configuration for the connected network devices  2. The Virtual Clustering switch should support the Standby Sup |  |  |
| (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (II) CCCR-Core  1. Redundant Supervisor Engine / Management Engine 2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SFF+ Supported Line Cards  (III) HPC Core 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SFF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 100 K lpv4 routes  6. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K acutenties for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  9. The Switch should support minimum 15 K ACL entries for QoS and Security control  1. The Switch should be capable to suppo |  |  |
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| 3. 5 * 24 Port 10GE SFP+ supported Line Cards or Total no of 110 10G SPF+ ports  (ii) CCCR-Core  1. Redundant Supervisor Engine / Management Engine 2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (iii) HPC Core  1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance  1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tops and per slot bandwidth capacity up to 480 Gbps.  2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  3. The Switch should support 1/10/40 Gbps interface  4. The Switch should support minimum 32 K mac entries  5. The Switch should support minimum 100 K Ipv4 routes  6. The Switch should support minimum 15 K ACL entries for QoS and Security control  7. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  7. The Switch should support minimum 15 K ACL entries for QoS and Security control  8. The Switch should support minimum 15 K ACL entries for QoS and Security control  9. The Switch should support minimum 15 K acl entries for QoS and Security control  1. The Switch should support minimum 15 K acl entries for QoS and Security control  1. The Switch should support minimum 15 K acl entries for QoS and Security control  8. The Switch should support minimum 15 K acl entries for QoS and Security control  9. The Switch should support minimum 4 K logical interfaces  (d) Chassis Virtualization Features  1. The Switch should be capable to support combining of two separate  |  |  |
| (II) CCCR-Core  1. Redundant Supervisor Engine / Management Engine 2. 2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (III) HPC Core 1. Redundant Supervisor Engine / Management Engine 2. 1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module). 3. Minimum 2*12 Port 10GE SPF+ Supported Line Cards  (c) Performance 1. The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps. 2. The Switch should support forwarding rates of minimum 800 million packets per second (MPPS) 3. The Switch should support 1/10/40 Gbps interface 4. The Switch should support minimum 32 K mac entries 5. The Switch should support minimum 32 K mac entries 6. The Switch should support minimum 100 K lpv4 routes 7. The Switch should support minimum 15 K ACL entries for QoS and Security control 8. The Switch should support minimum 15 K multicast ipv4/lpv6 routes 9. The Switch should support minimum 4 K logical interfaces (d) Chassis Virtualization Features 1. The Switch should be capable to support combining of two separate physical switch in a single logical unit over L2 & L3 Multipath to support dual bandwidth and active/active configuration for the connected network devices 2. The Virtual Clustering switch should support the Standby Supervisor to take over in the event of a failure on the Active Supervisor   |  | case of h/w failure of line card/module).  |
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| 3.   The Virtual Clustering switch should support Stateful Switch over in case of a failure of   | (ii) 1. 2. 3. (iii) 1. 2. 3. (c) 1. 2. 3. 4. 5. 6. 7. 8. 9. (d) 1. | CCCR-Core  Redundant Supervisor Engine / Management Engine  2*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  Minimum 2*12 Port 10GE SPF+ Supported Line Cards  HPC Core  Redundant Supervisor Engine / Management Engine  1*40GE Single Mode QSFP+ Uplink Port and 1*40GE Multi Mode QSFP+ Uplink Port (Both these ports must be on different line cards/modules to avoid 40G link failure in case of h/w failure of line card/module).  Minimum 2*12 Port 10GE SPF+ Supported Line Cards  Performance  The Switches architecture should be capable of system bandwidth capacity minimum up to 8 Tbps and per slot bandwidth capacity up to 480 Gbps.  The Switch should support forwarding rates of minimum 800 million packets per second (MPPS)  The Switch should support minimum 32 K mac entries  The Switch should support minimum 30 K Ipv4 routes  The Switch should support minimum 15 K ACL entries for QoS and Security control  The Switch should support minimum 15 K ACL entries for QoS and Security control  The Switch should support minimum 15 K multicast ipv4/Ipv6 routes  The Switch should support minimum 15 K multicast ipv4/Ipv6 routes  The Switch should be capable to support combining of two separate physical switch in a single logical unit over L2 & L3 Multipath to support dual bandwidth and active/active configuration for the connected network devices  The Virtual Clustering switch should support the Standby Supervisor to take over in the  |
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|            | the Active Cunemiser   |  |
|------------|--|--|
| 4.         | the Active Supervisor The Virtual Clustering switch Active Supervisor is responsible for the control plane of both   |  |
| 4.         | the switches   |  |
| 5.         | The Virtual Clustering switch data planes of both the physical switches should be active   |  |
| 0.         | providing double the port bandwidth  |  |
| 6.         | The switch should support In-Service OS upgrade mechanism with a minimal or no   |  |
|            | disruption of traffic through upgrade process.   |  |
| (e)        | Layer 2 Features   |  |
| 1.         | The Switch should support Layer 2 switch port and have IEEE 802.1Q VLAN encapsulation  |  |
|            | and should support minimum 4 K VLAN  |  |
| 2.         | The Switch should support IEEE 802.3 ad Link port Trunking across line cards   |  |
| 3.         | The Switch should support Secure trunking protocol with MD5 or equivalent protocol to  |  |
|            | reduce administrative burden of configuring VLANs on multiple switches in turn   |  |
| 4          | eliminating the configuration errors & troubleshooting in secure manner  |  |
| 4.         | The Switch Should be able to discover the neighbouring devices and giving the details about the platform, IP Address, Link connected through etc., thus helping in         |  |
|            | troubleshooting connectivity problems.   |  |
| 5.         | The Switch should support mechanism to detect connectivity issues with both fiber and  |  |
| 0.         | copper cabling to ensures that a partially failed link is shut down on both sides, to avoid  |  |
|            | L2/L3 protocol convergence issues  |  |
| 6.         | The Switch should support Layer 2 trace route to ease troubleshooting by identifying the   |  |
|            | physical path that a packet takes from source to destination   |  |
| 7.         | The Switch should support extensive debugging including layer 2 debugging for  |  |
|            | troubleshooting  |  |
| 8.         | The Switch should support display and clear MAC address information in MAC Address   |  |
|            | Table  |  |
| 9.         | Spanning Tree Protocol (IEEE 802.1D, 802.1W, 802.1S)   |  |
| 10.<br>11. | Switch should support basic Multicast IGMP v1, v2, v3 Switch should support Link Aggregation for All Ports across any module or any port                                   |  |
| 12.        | Switch should support Link Aggregation for All Ports across any module of any port  Switch should support Industry Standard Port/Link Aggregation for All Ports across any |  |
| IE.        | module or any port   |  |
| 13.        | Support for broadcast, multicast and unknown unicast storm control to prevent  |  |
|            | degradation of switch performance from storm due to network attacks and vulnerabilities  |  |
| 14.        | Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding  |  |
|            | media level failures   |  |
| (f)        | Layer 3 Routing Features   |  |
| 1.         | The Switch should support VRRP or equivalent for High Availability   |  |
| 2.         | The Switch should support L3 VPN routes VRF minimum 1000   |  |
| 3.         | The Switch should support RFC 1771 - BGPv4 with 4- byte ASN  |  |
| 4.         | The Switch should support QoS, Security, Flow based Monitoring and Control Plane   |  |
|            | Protection for Multicast Traffic   |  |
| (g)        | IPv6   |  |
| 1.         | The switch should support IPV6 in hardware without the addition of special modules   |  |
| (h)        | QoS  The Switch chould cuppert conhictionted OoS and Troffic Management  |  |
| 1.<br>2.   | The Switch should support sophisticated QoS and Traffic Management  The Switch should support QoS Classification, Marking, Policing from day one                           |  |
| 3.         | The Switch should support QoS classification, Marking, Folicing from day one  The Switch should support QoS for IPv6 unicast and multicast traffic                         |  |
| 4.         | The Switch should support Per-port -per-VLAN policies  |  |
| 5.         | The Switch should support Distributed policing (up to 4 K polices)   |  |
| 6.         | The Switch should support Packet or byte-based policing  |  |
| 7.         | The Switch should support Diff ServQoS on all ports  |  |
| 8.         | The Switch should support priority queuing up to 8 Queues  |  |
| 9.         | The Switch should support IP differentiated service code point (DSCP) and IP precedence  |  |
| 10.        | The Switch should support classification and marking based on full Layer 3, 4 headers  |  |
| 11.        | The Switch should support input and output policing based on Layer 3, 4 headers  |  |
| 12.        | The Switch should support Traffic Classification: Physical Port, IP DA/SA, IP DA/SA/L4 Port  |  |
| 13.        | The Switch should support Admission Control: IP DA/SA, IP DA/SA L4, RSVP   |  |
| 14.        | The Switch should support Traffic Marking: IEEE 802.1Q/P COS, IPv4 ToS, via ACLs   |  |
| 15.        | The Switch should support Congestion Avoidance: WRED, multiple Queue Thresholds  |  |
| 16.        | The Switch should support Scheduling IP precedence, 802.1p and ISL priority, three   |  |
|            |  |  |

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|            | transmit queues on a per port basis, WRR, Strict Priority Queue TOS<->COS                                   |
| 4=         | mapping   |
| 17.        | The Switch should support Strict-Priority Queue (protects mission-critical, delay-sensitive                 |
|            | traffic)  |
| 18.        | The Ethernet ports must support Shaped round robin (SRR), Deficit weighted round robin                      |
|            | (DWRR) and Weighted Round Robin (WRR)   |
| 19.        | The Switch should support automatic QoS   |
| (i)        | Flow based Application Monitoring   |
| 1.         | The Switch should support Flow based Application Monitoring in Hardware                                     |
| 2.         | The Switch should support Egress Flow for collecting flow statistics for packets prior to                   |
|            | transmission out the egress interface or interfaces   |
| 3.         | The Switch should support Sampled Flow for records to be created based on a sample of                       |
|            | the traffic matching the flow   |
| <b>(i)</b> | Security  |
| 1.         | The Switch should have Filters/Access-List on all ports   |
| 2.         | The Switch Should support enforcement of identity based access policies                                     |
| 3.         | The Switch should support VLAN ACLs, Router ACLs, Port based ACLs, and Role based                           |
|            | ACL from day one  |
| 4.         | The Switch should support packet classification by tagging packets on ingress to the                        |
|            | network so that they can be properly identified for the purpose of applying security and                    |
|            | other policy criteria along the data path   |
| 5.         | The Switch should support secured communication on the links between devices in the                         |
|            | network with a combination of encryption, message integrity check, and data-path replay                     |
|            | protection mechanisms   |
| 6.         | The Switch should support CPU rate limiters for control plane protection                                    |
| 7.         | The Switch should have support for IEEE802.1AE MACsec encryption  |
| (k)        | Management  |
| 1.         | The Switch should support the revised IP-MIB that includes statistics collection for IPv6                   |
| 2.         | The Switch should have TACACS+/RADIUS enabled.  |
| 3.         | The Switch should have SSHv1 , SSHv2, SNMPv1, SNMPv2, SNMPv3 and NTP support                                |
| 4.         | The Switch should have Management Access Filter (Access Policies)   |
| 5.         | The Switch should support Web based, Telnet based and TFTP based access                                     |
| 6.         | The Switch should support RMON - Remote Monitoring (RMON) with 4 RMON groups                                |
| 7          | (history, statistics, alarms, and events).  The Switch should support SNMP agent - SNMPv1, SNMPv2c, SNMPv3. |
| 7.<br>8.   | The Switch should support collection of Top-N to analyse data for each physical port on a                   |
| 0.         | switch  |
| 9.         | The Switch should support collection of Top-N details for Number of input/output                            |
| J.         | broadcast packets, buffer overflow and bytes  |
| 10.        | The Switch should support collection of Top-N details for Number of input/output                            |
|            | multicast packets   |
| 11.        | The Switch should support Layer 2 trace route to identify the Layer 2 path that a packet                    |
|            | takes from a source device to a destination device  |
| (I)        | Administration and Troubleshooting  |
| 1.         | The Switch should support Multiple message categories including configuration,                              |
|            | diagnostics, environmental conditions, inventory and syslog events.   |
| 2.         | The Switch should support Continuous device health monitoring and real-time                                 |
|            | diagnostics alerts  |
| 3.         | The Switch should support each of the CPUs to report events to the management                               |
|            | processor using an out-of- band interface and log the event in non-volatile memory with a                   |
|            | time stamp  |
| 4.         | The switch must fully inter-operate with the existing WS-C2960X-48FPS-L & WS-C2960L-                        |
|            | 48TS-LL installed at Prithvi Hostel   |
| В          | Access Switches (48 Port Switches - Qty 51 Nos. & 24 Port Switches - Qty 11 Nos.)                           |
| 1.         | The supplier should provide details of the 48-port & 24 Port switch model proposed.                         |
|            | These details must include:   |
|            | Make, model number  |
|            | OS version/feature set  |
|            | The processor throughput performance in millions of packets per second (MPPS)                               |
|            | The backplane switching capacity in Gigabits per second (Gbps)  |
| 2.         | The Switch should support minimum 300 Gbps of switching capacity  |
| 3.         | The Switch should support minimum 30 K mac entries  |
|            |   |

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| 4.          | The Switch should support minimum 30 K IPv4 routes   |
| 5.          | The Switch should support minimum 15 K IPv6 routes   |
| 6.          | The Switch should support forwarding rates up to 100 million packets per second (Mpps)         |
| 7.          | The Switch should support minimum 4 K VLAN   |
| 8.          | The Switches should support minimum Jumbo Frame size of 9000 bytes                             |
| 9.          | Half and Full Duplex switching on all UTP ports.   |
| 10.         | Each switch should have minimum 2*10G uplink ports   |
| 11.         | The 48/24 Port switches must have at least 8 Multigigabit ports (100M, 1G, 2.5G, 5G).          |
| 12.         | The switches must be of a type that can be connected together in a stack and that the          |
|             | resultant stack can be managed as an integral unit using a single IP address. Stacking         |
|             | must support at least four switches.   |
| 13.         | The switch must support auto-negotiation on all ports and must also have the capability        |
|             | of manual speed configuration under port setup.  |
| 14.         | Each switch or in the case of a stack, diverse stack members, should connect at Layer 2        |
| <u> </u>    | back to diverse core switches using a single logical port channel.                             |
| 15.         | The switch must support non-blocking, full wire speed switching, with support for cut          |
| 13.         | through and/or store-and-forward switching modes on all ports.                                 |
| 16.         | All the ports on switch should be PoE+ enabled. The switch should be available with or         |
| 10.         |  |
|             | without full standards based IEEE 802.3 at on any port, which will support standard PoE+       |
| 47          | devices without the need for user configuration.   |
| 17.         | Switch should contain a degree of intelligent power management so that power                   |
| 40          | consumption is reduced if power is not required on all ports                                   |
| 18.         | The switch should include a QoS feature including multiple hardware queues for the             |
| 45          | prioritization of network traffic.   |
| <b>1</b> 9. | The switch must support converged applications. The switch must be capable of                  |
|             | automatically configuring the shared port on the switch with the correct VLAN and QoS          |
|             | settings to allow simultaneous connection of IP phones and staff PCs.                          |
| 20.         | It is desirable that the switch supports failsafe stacking.                                    |
| 21.         | It is desirable that the switch stack supports hot-swapping of switches within a stack. It     |
|             | should be possible to remove the faulty switch and insert the new switch without               |
|             | disrupting the operation of the stack. The solution should also be capable of                  |
|             | automatically downloading the appropriate software and configuration to the newly              |
|             | inserted switch.   |
| 22.         | It is desirable that the switch supports features to eliminate certain spoofing scenarios      |
|             | such as DHCP snooping and ARP inspection.  |
| 23.         | It is desirable that the switch should offer a wide variety of security features, the supplier |
|             | should list the additional security features provided on the switch that are not covered       |
|             | above.   |
| С           | 12 Port Switches   |
| 1.          | 12 ports 10GE/1GE Switch with 6*10GE MM Modules and 6*1GE Copper SFP Modules:                  |
|             | Qty - 02   |
| 2.          | 12 ports 10GE/1GE Switch with 2*10GE SM Modules and 10*1GE Copper SFP                          |
|             | Modules: Qty - 01  |
| D           | Total no of 10GE/1GE SFP+/SFP Modules  |
|             | All appropriate Small Form Factor Modules should be pluggable across all proposed              |
|             | switches.  |
|             | IITM-CORE Switch   |
|             | 40GE Single Mode QSFP-Qty-01 No and 40GE Multi Mode QSFP-Qty-01 No                             |
|             | 10GE MM SFP+ Modules-54 Nos.   |
|             | 10GE SM SFP+ Modules-06 Nos.   |
|             | CCCR-Core Switch   |
|             | 40GE Single Mode QSFP-Qty-01 No and 40GE Multi Mode QSFP-Qty-01 No                             |
|             | 10GE MM SFP+ Modules-04 Nos.   |
|             | HPC Core Switch  |
|             | 40GE Multi Mode QSFP-Qty-02 Nos.   |
|             | 10GE MM SFP+ Modules-06 Nos.   |
|             |  |
|             | Access Switch Locations – 26   |
|             | 10GE MM SFP+ Modules-Qty-52 Nos.   |
|             | NKN 10G Network – NOC  |
|             | 1GE SFP Copper Modules –Qty–12 Nos.  |
|             | 10GE MM SFP+ Modules-Qty-12 Nos.   |
|             | Prithvi Hostel   |
|             |  |

| 1GE SFP Copper Modules -Qty-10 Nos. |
|-------------------------------------|
| 10GE SM SFP+ Modules-Qty-02 Nos.    |
| Future Expansion                    |
| 10GE MM SFP+ Modules-Qty-10 Nos.    |
| 10GE SM SFP+ Modules-Qty-02 Nos.    |

| E   | Wi-Fi Wireless Controller  |  |
|-----|--|--|
| 1.  | It should have minimum 2 * 10/100/1000 Base T and minimum 2 * 10Gbase SFP+   |  |
|     | uplink ports and one console port.   |  |
| 2.  | It should be ready for supporting 100 AP's Scalability to 200 Aps support in future  |  |
|     | without adding any new hardware.   |  |
| 3.  | Controller should have capacity to handle <b>minimum 10000</b> or more concurrent devices.   |  |
| 4.  | Controller should support minimum 20 Gbps of throughput.   |  |
| 5.  | The proposed architecture should be based on centralized controller with thin AP   |  |
|     | deployment.  |  |
| 6.  | AP's should configuration from controller for improved security.   |  |
| 7.  | Ability to map SSID to VLAN and dynamic VLAN support for same SSID. Support for  |  |
|     | automatic channel selection for interference avoidance Access points can discover controllers on the same L2 domain without requiring any configuration on the access      |  |
|     | point.   |  |
| 8.  | System should provide DoS attacks and Intrusion Detection & Prevention and Control for   |  |
| 0.  | any Rough Access Points.   |  |
| 9.  | The Controller should be able to scan for rogue access points and the controller should  |  |
| J.  | be able to locate them on a floor map.   |  |
| 10. | The controller should be able to send a notification to the administrator when a rogue AP  |  |
|     | has been detected. (Either this functionality should be achieved by controller or by NMS.  |  |
|     | Kindly specify the same in compliance)   |  |
| 11. | IPV4 & IPV6 support  |  |
| 12. | Should support on board or external DHCP server.   |  |
| 13. | The controller shall be manageable using CLI, Telnet/SSH, HTTP based GUI and   |  |
|     | SNMPv2/v3.   |  |
| 14. | The controller should be able to present a customizable dashboard with information on  |  |
|     | the status of the WLAN network. (Either this functionality should be achieved by   |  |
|     | controller or by NMS. Kindly specify the same in compliance)   |  |
| 15. | The email client on the controller should support SMTP so able to raise critical alarms by   |  |
|     | sending an email through NMS or controller.  |  |
| 16. | Per SSID and Per user bandwidth Rate Limiting Self-healing on the detection of RF  |  |
|     | interference or loss of RF coverage Capability to provide preferred access for "fast"  |  |
|     | clients over "slow" clients System must support band steering where 5 GHz clients are forced to connect over 5GHz Radio to provide better load balancing among 2.4 GHz and |  |
|     | 5 GHz radios.  |  |
| 17. | System should support internal and External Database for user authentication.  |  |
| 18. | License for AP indoor and outdoor can terminate on the controller without the need for a   |  |
|     | separate license.  |  |
| 19. | Licenses of each Wireless Controller should be aggregated so that all the licenses are   |  |
|     | usable.  |  |
| 20. | AP can discover controllers across L-3 network through DHCP or DNS option  |  |
| 21. | The controller should provide latest network authentication (WEP, WPA, WPA2) and   |  |
|     | encryption types like DES/3DES, TKIP and AES.  |  |
| 22. | Authentication: 802.1X, local database   |  |
| 23. | External AAA servers: Active Directory, RADIUS, LDAP   |  |
| 24. | The controller must support integration with AAA with RADIUS and TACACS+ and policy  |  |
|     | management with user roles, device types, etc.   |  |
| 25. | The Controller must support an ability to dynamically adjust channel and power settings  |  |
| 00  | based on the RF environment.   |  |
| 26. | The Controller RF management algorithm must allow adjacent Aps to operate on   |  |
| 07  | different channels, in order to maximize available bandwidth and avoid interference.   |  |
| 27. | The Controller must support interference detection and avoidance for both Wi Fi and non-   |  |
| 28. | Wi-Fi interferes.  The controller should support advance QQS to implement role based access for data.  |  |
| 20. | The controller should support advance QOS to implement role based access for data,   |  |
| 20  | voice and video applications.  |  |
| 29. | It should support session prioritization, as well like Voice, Video and Data, should get   |  |

|             | different QOS.  |
|-------------|---|
| 30.         | Controller should able to detect application signatures for Application based QOS, Access   |
|             | Control per user or per SSID.   |
| 31.         | The access rules for access rights should be based on any combination of time, location,  |
|             | user identity and device identity.  |
| 32.         | Controller should support reliable fast roaming standards 802.11k/r Controller should   |
|             | support management frame protection.  |
| 33.         | The solution should support advance Wireless Intrusion Detection & Prevention System.   |
| 34.         | WIPS solution should Automatically blacklist clients when it attempt any attack.  |
| 35.<br>36.  | WIPS solution should be capable of wireless intrusion detection & prevention.   |
|             | The WLAN should be able to detect Rogue AP and take corrective action to prevent the rogue AP.  |
| 37.         | The system should detect and prevent an organization's wireless client connecting to rogue AP and also prevent an outside client trying to connect to organizational WLAN.  |
| 38.         | WIPS solution should detect & prevent an Ad-hoc connection (i.e. clients forming a network amongst themselves without an AP) as well as windows bridge (client that is associated to AP is also connected to wired network and enabled bridging between two interfaces) |
| 39.         | The system should detect an invalid AP broadcasting organization's valid SSID and should prevent valid clients getting connected from these AP's. WIPS Solution should track the location of interferer objects.  |
| 40.         | The WIPS solution should able to detect and locate the rogue access point on floor maps once detected.  |
| 41.         | The WIPS solution should detect and protect if a client probe-request frame will be answered by a probe response containing a null SSID to crash or lock up the firmware of any 802.11 NIC.   |
| 42.         | The WIPS solution should detect and protect if a client/tool try to flood an AP with 802.11 management frames like authenticate/associate frames which are designed to fill up the association table of an AP.  |
| 43.         | The WIPS solution should detect and protect if somebody try to spoof mac address of client or AP for unauthorized authentication.   |
| 44.         | The WIPS solution should detect and protect if a client/tool try de authentication broadcast attempts to disconnect all clients in range rather than sending a spoofed death to a specific MAC address.   |
| 45.         | The WIPS solution should detect and protect if an attacker attempts to lure a client to a malicious AP using Institute's SSID on fake AP in close proximity of the organizations premises.  |
| 46.         | It should detect When the organization's Client probes for organizations SSID and these malicious Aps respond and invite the client to connect to them.   |
| 47.         | WEEE/RoHS compliant, Wi-Fi Alliance certified.  |
| 48.         | Should be WPC approved by Govt of India.  |
| F.          | Indoor Access Point -Qty. 54 No.  |
| 1.          | Wi-Fi Standard support : 802.11a/b/g/n/ac Wave 2  |
| 2.          | Access Points channel support: 20MHz,40MHz,60MHz,160MHz   |
| 3.          | Access Points proposed must include radios for 2.4 GHz and 5 GHz with 802.11acWave 2  |
| 4.          | Access Points should support physical rate minimum of 2 Gbps on 5GHz radios.  |
| 5.          | Access Points should support MU-MIMO (Multi-user Multiple-input Multiple-output) and 4X4 (MIMO) with 3 spatial streams.   |
| 6.          | Access point should have Ethernet interface with supporting speeds of 10M, 100M, 1G 2.5 G.  |
| 7.          | Access point should have build in BLE.  |
| 8.          | Access point should have serial/console port  |
| 9.          | Access point should support powering from AC, DC, and POE+.   |
| 10.         | Access point should support 802.3af/at POE standard.  |
| 11.         | The Max transit power of the AP + Antenna should be as per WPC norms.   |
| 12.         | Must support AP enforced load-balance between 2.4Ghz and 5Ghz band.   |
| 13.         | Must incorporate radio resource management for power, channel, coverage hole detection and performance optimization   |
| 14.         | Must have -90 dB or better Receiver Sensitivity.  |
| 15.         | Must support Management Frame Protection  Should support locally significant contificator on the APa using a Public Key Infrastructure.   |
| <b>1</b> 6. | Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI).   |

| environment.  19. AP model propo   | s a sensor for wireless IDS  |
|--|--|
| environment.  19. AP model propo   | s a sensor for wheless if 3  |
| 19. AP model prope   | P that serves clients must be able to be dedicated to monitoring the RF  |
|  |  |
|  | osed must be able to be both a client-serving AP and a monitor-only AP for   |
| Intrusion Preve  |  |
| 20. Should support   | mesh capabilities for temporary connectivity in areas with no  |
| Ethernet cablin  |  |
|  | hould support QoS for voice over wireless.   |
|  | serving clients when WAN link to controller is back up again, should not   |
| reboot before jo   | • •  |
|  | support centralized wireless mode with the use of a controller, but the APs  |
|  | ort operation in autonomous mode without the presence of any controller,   |
| when needed.   | or operation in autonomous mode without the presence of any controller,  |
|  | I in remote AP mode, the AP must not disconnect any clients when the   |
|  |  |
|  | he controller fails or in the case the failed connection has been restored   |
| again.   | In any star AD and the AD and the ship to each each each each each each each each  |
|  | in remote AP mode, the AP must be able to authenticate new users with  |
|  | ver directly at the AP itself in case of link failure to controller.   |
|  | elnet and/or SSH login to APs directly for troubleshooting flexibility   |
|  | ertification for WMM   |
|  | oS and Video Call Admission Control capabilities.  |
|  | Point - Qty 20 Nos.  |
| 1. Wi-Fi Standard  | support : 802.11a/b/g/n/ac Wave2   |
| 2. Access Points of  | hannel support: 20MHz,40MHz,60MHz,160MHz   |
| <ol><li>Access Points p</li></ol>  | roposed must include radios for both 2.4 GHz and 5 GHz.  |
|  | an have integrated or external Antenna.  |
| •  | hould have -90 dB or better Receiver Sensitivity.  |
| +  | ould support 802.3af/at POE standard.  |
|  | U-MIMO (Multi-user Multiple-input Multiple-output) and 3X3 (MIMO) with 3   |
| spatial streams  |  |
|  | hysical rate minimum of 1.3 Gbps on 5GHz radios  |
|  | power of the AP + Antenna should be as per WPC norms   |
| O The May trancit  |  |
|  |  |
| 10. Access point sh  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G.  |
| <ul><li>10. Access point sh</li><li>11. Wireless AP sh</li></ul>   | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance   |
| 10. Access point sh<br>11. Wireless AP sh<br>of all mobile de  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input   | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without its from client  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input 12. Must incorpora  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without its from client ate radio resource management for power, channel, coverage hole  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the inpu  12. Must incorpora detection and p  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without ts from client ate radio resource management for power, channel, coverage hole erformance optimization   |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input 12. Must incorpora detection and p 13. Access point sh  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without ts from client ate radio resource management for power, channel, coverage hole terformance optimization all support powering from AC, DC, and POE+.  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input 12. Must incorpore detection and p 13. Access point sh 14. Access point sh  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without tes from client ate radio resource management for power, channel, coverage hole terformance optimization all support powering from AC, DC, and POE+. all support pole, wall and Cable strand mounting options.   |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input 12. Must incorpora detection and p 13. Access point sh 14. Access point sh 15. The Access point   | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without its from client ate radio resource management for power, channel, coverage hole erformance optimization all support powering from AC, DC, and POE+. all support pole, wall and Cable strand mounting options. It should be IP67 and NEMA rated.  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input 12. Must incorpora detection and p 13. Access point sh 14. Access point sh 15. The Access point 16. Wi-Fi Alliance C  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without its from client atternation resource management for power, channel, coverage hole performance optimization all support powering from AC, DC, and POE+. all support pole, wall and Cable strand mounting options. In the should be IP67 and NEMA rated.   |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the input 12. Must incorpora detection and p 13. Access point sh 14. Access point sh 15. The Access point 16. Wi-Fi Alliance C 17. Must support Q   | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without ate radio resource management for power, channel, coverage hole erformance optimization all support powering from AC, DC, and POE+. all support pole, wall and Cable strand mounting options. at should be IP67 and NEMA rated. ertification for WMM. os and Video Call Admission Control capabilities.  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the inpu  12. Must incorpora detection and p  13. Access point sh 14. Access point sh 15. The Access point 16. Wi-Fi Alliance C 17. Must support Q 18. Must support th  | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance exices, including one and two-spatial-stream devices on 802.11ac without test from client atter radio resource management for power, channel, coverage hole erformance optimization all support powering from AC, DC, and POE+. all support pole, wall and Cable strand mounting options. It should be IP67 and NEMA rated. ertification for WMM. oS and Video Call Admission Control capabilities. It ability to serve clients and monitor the RF environment concurrently.  |
| 10. Access point sh 11. Wireless AP sh of all mobile de taking the inpu  12. Must incorpore detection and p  13. Access point sh 14. Access point sh 15. The Access point 16. Wi-Fi Alliance C 17. Must support Q 18. Must support th 19. Should support   | ould have Ethernet interface with supporting speeds of 10M, 100M, 1G. ould support beam forming technology to improve downlink performance evices, including one and two-spatial-stream devices on 802.11ac without ate radio resource management for power, channel, coverage hole erformance optimization all support powering from AC, DC, and POE+. all support pole, wall and Cable strand mounting options. at should be IP67 and NEMA rated. ertification for WMM. os and Video Call Admission Control capabilities.  |
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| 1   | Natural Video Boording Storage System / Appliance: Oty 01                             |                 |  |  |
|-----|---|-----------------|--|--|
| 1.  | Network Video Recording Storage System / Appliance: Qty- 01                           | ualinar viala a |  |  |
| a.  | License/Channels/Support for 40 indoor/outdoor IP cameras for video reco              | raing, video    |  |  |
|     | playback and relay.   |                 |  |  |
| b.  | Scalable up to support 64 Cameras.  |                 |  |  |
| C.  | Network: Gigabit Network Interface Card support.                                      |                 |  |  |
| d.  | Ports: HDMI, USB, VGA.  |                 |  |  |
| e.  | Hard Disk: - Total Hard Disk Usable Capacity 32 TB After RAID 5.                      |                 |  |  |
| f.  | Disk Type: - Hot Swappable.   |                 |  |  |
| g.  | Compression :- H.265/H.264/MJPEG/MPEG4  |                 |  |  |
| h.  | Resolution:- 12 MP; 8 MP; 6 MP;5 MP;4MP;3 MP; 1080p;720p;CIF;4CIF                     |                 |  |  |
| i.  | Features:- Search, play back function, Play; Pause; Stop; Rewind; Fast play;          | Slow play:      |  |  |
| j.  | Next File; Previous File; Next Camera; Previous Camera; Full Screen; Repeat; Shuffle; |                 |  |  |
|     | Backup selection.   | ,               |  |  |
| k.  | VMS (Video Management Software) License for Server, Appliance, desktop e              | etc as per      |  |  |
|     | proposed solution.  |                 |  |  |
| 2.  | Network Indoor Camera: Qty - 24   |                 |  |  |
| a.  | Min 3 Megapixel High Resolution   |                 |  |  |
| b.  | Day/Night capability  |                 |  |  |
| C.  | Full HD1080p Video  |                 |  |  |
| d.  | Dual Video Streams  |                 |  |  |
|     | 3D Digital Noise Reduction  |                 |  |  |
| e.  |   |                 |  |  |
| f.  | PoE Support   |                 |  |  |
| g.  | Min IR Range 100 ft (30 m)  |                 |  |  |
| h.  | H.264/MJPEG   |                 |  |  |
| i.  | Along with necessary accessories (mounting kit, screws, clamps etc.)                  |                 |  |  |
| 3.  | Network Outdoor Camera: Qty - 12  |                 |  |  |
| a.  | Min 3 Megapixel High Resolution   |                 |  |  |
| b.  | Day/Night capability  |                 |  |  |
|     | Full HD1080p Video  |                 |  |  |
| c.  | Dual Video Streams  |                 |  |  |
| d.  | 3D Digital Noise Reduction  |                 |  |  |
| e.  | PoE Support   |                 |  |  |
| f.  | Min IR Range 100 ft (30 m)  |                 |  |  |
| g.  | H.264/MJPEG   |                 |  |  |
| h.  | Along with necessary accessories (mounting kit, screws, clamps etc.)                  |                 |  |  |
| i.  | 25" Full HD LED Monitor with wall mounting kit & Accessories Qty- 02                  |                 |  |  |
|     | Ports: HDMI Port: - 02 Nos., VGA Port:- 01Nos Vendor has to ensure that the           | ese monitors    |  |  |
|     | will be used for day to monitoring of Security System and will be installed at        |                 |  |  |
|     | Gate. Vendors may inspect the site and quote necessary accessories / device           | •               |  |  |
|     | fulfilling the purpose.   |                 |  |  |
| J.  | Passive Work  |                 |  |  |
| 1.  | Supply, laying, termination of CAT-6 E UTP cable 4 pair (Dlink/ Finolex/              | Approx.         |  |  |
|     | Polycab or equivalent ) in existing wall/cable tray/casing patti.                     | 7000 Mtr.       |  |  |
| 2.  | Supply and fixing of 25mm dia pvc pipes/casing patti/flexible cacing                  | Approx.         |  |  |
|     | /clamped in the existing wall/cable tray with suitable supports for CAT-              | 500 Mtr.        |  |  |
|     | 6E cables   |                 |  |  |
| 3.  | Supply and laying of underground 2" HDPE pipe along with excavation of                | Approx.         |  |  |
|     | ground to a depth of 2 feet level and width of 1 feet and refilling etc. for          | 2500 Mtr        |  |  |
|     | laying the HDPE pipe. Extra earth after re-filling to be levelled in low lying        |                 |  |  |
|     | area as directed by the Site in-charge. (For Perimeter fencing)                       |                 |  |  |
| 4.  | Supply, laying, termination of Multimode OM4 Fibre optic cable: - 6 core              | Approx.         |  |  |
|     | multimode fibre cable.  | 1000            |  |  |
|     |   | Mtr.            |  |  |
| 5.  | LIU: 24 core fibre supported OM4 MM LIU fully loaded with Sc pigtails                 | 01 Nos.         |  |  |
| 6.  | LIU: 06 core fibre supported OM4 MM LIU fully loaded with Sc pigtails                 | 04 Nos.         |  |  |
| 7.  | Patch Cords: 2 Mtr. LC/SC multimode fibre patch cord                                  | 12 Nos.         |  |  |
| 8.  | Supply, laying, termination of Single mode OS2 Fibre optic cable: - 6 core            | Approx.         |  |  |
| ]   | Single mode fibre cable.  | 500 Mtr         |  |  |
| 9.  | LIU: 06 core fibre supported SM LIU fully loaded with Sc pigtails                     | 02 Nos.         |  |  |
| 10. | Patch Cords: 2 Mtr. LC/SC Single mode fibre patch cord                                | 04 Nos.         |  |  |
| 11. | 5 to 8 Mtr height GI pole depending on location with necessary mounting               | Approx.         |  |  |
|     | To to o mit neight of pole depending on location with necessary mounting              | Thhiov:         |  |  |

|                | bracket and Civil works for outdoor AP and IP Camera .(Above Ground Level)  | 28 Nos.  |
|----------------|---|----------|
| 12.            | Supply of CAT-6E patch cords of 2 Mtr. [For Stock] (Dlink/ AMP/Finolex/ Polycab)  | 500 Nos. |
| 13.            | 9U wall mounted rack made out of powder coated materials with Cooling fans, glass door in front side. The rack shall be provided with suitable power sockets/strips, lock and key, cable manager etc.   | 04 Nos.  |
| 14.            | Bidder has to mandatorily consider necessary Racks and Patch Panels fully loaded along with IOs, including patch cords for rack dressing as per the switches and their port count considering the present site condition. Cost of the same will be considered in TCO and evaluation of lowest bid. (Institute has existing racks with loaded- LIU, Patch Panels, Cable Manager, power strips etc. at the site, where there is already having switches and fibre cable termination. Vendor has to inspect the site and decide on using the existing rack (9 U Rack with W 600 X D 500 .)  12U wall mounted rack made out of powder coated materials with Cooling fans, glass door in front side. The rack shall be provided with suitable power sockets/strips, lock and key, cable manager etc. The cost should include  (a) Cost of 12 U Rac with necessary accessories for accommodating proposed switches  (b) Cost of Patch Panels along with CAT6 / CAT6E Termination as per proposed layout  (c) Cost of termination of existing fiber.  (d) Installation Charges | 25 Nos.  |
| 15.            | Chambers –Approx Qty-40 Nos. along with cable marker needs to be quoted mandatorily. Chambers should be of minimum 2'X.2' (approx as per site conditions) with matching depth of fibre along with the necessary chamber cover of ISO thallic grade resin as per approved sample by IITM.  | 40 Nos.  |
| 16.            | Note: The quantity mentioned at Sr. No 1,2,3,4,8,11,13,14,15 are approximate and will be considered for L1 evaluation. However payment for the same will be made at actual quantity / running meter.  |          |
| K.             | Manpower Support  |          |
| 1.             | The selected bidder must submit SLA in line with the contract along with escalation matrix to the senior most level.  |          |
| 2.             | The selected bidder must provide two (2) specialists/ engineers (Graduate )with minimum 2 years of experience in system and network administration & maintenance for the proposed solution. Unit cost of manpower must be provided in the price bid.  The support has to be provided on site during prime time (9.30am to 5.30pm) (8 X 5) and for weekends/ holidays / beyond office hours on call with a response time of 3 hours.   |          |
|                |   |          |
| L.             | Warranty and CMC Support Terms  |          |
| 1.             | 8 X 5 X Next Business day service support/ Same day attendance and maximum next business day part replacement from the OEM.   |          |
| 2.             | The Switch should be capable of migrating the Licenses & Software to latest   | hardware |
| <del>_</del> - |   |          |

### 5. Selection Criteria

- 1.1 Technical evaluation will be carried out of responsive bids from those vendors which received before the closing date & time, with the requisite EMD.
- 1.2 From among these eligible bids, further shortlisting will be made by selecting only those bids who qualify all requirements of this document as well as all the technical specifications mentioned in this document.
- 1.3 Vendors should make presentation on the complete proposed Network Infrastructure, Security Surveillance and Campus wide Wi-Fi Network Solution to Technical Purchase Committee / Technical Evaluation Committee. The presentation should highlight the capabilities of vendor in successful deployment of the proposed solutions, post installation services and support. Technical Purchase Committee / Technical Evaluation Committee will evaluate the same and shortlist the final successful vendors.
- 1.4 Price bids of only shortlisted successful bidders in 1.3 above shall be opened and total price (cost of ownership as described in 4.6) for all the configurations, including software, services etc. shall be taken into account.
- 1.5 Only lowest evaluated bid (L1) shall be considered thereafter for awarding of contract.

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# **PROFORMA 01**

Important: The bidder may use the given set of proforma for submitting quotation. In case the space is not sufficient, tender may be submitted in separate sheets retaining the format.

Configuration of Network Infrastructure, security servilance and Campus wide WiFi Network Solution.

| comiguration of Network inflastructure, security s | servilance and campus wide with Network Solution. |
|--|---|
| HARD   | WARE  |
| Core Chassis Switch                                |   |
| Access Switches                                    |   |
| Network Video Recorder                             |   |
| Indoor Camera                                      |   |
| Outdoor Camera                                     |   |
| Wifi Wireless Controller                           |   |
| Indoor Access Point                                |   |
| Outdoor Access Point                               |   |
| Network Monitoring System                          |   |
| ADDITIONAL HARWARE                                 |   |
| SOFT   | WARE  |
| Please indicate which of the following software a  | re present and indicate the name of the software  |
| when required. Also indicate the licensing p       | olicy(Network/Node-locked) for all the licensed   |
| packages.  | , ,   |
| p week and a second                                |   |
| DOCUME   | INTATION  |
| List of printed documentation material available,  |   |
| recommended and offered                            |   |
| Environmental Requirements                         |   |
| (i) Temperature (C)                                |   |
| (ii) Relative Humidity                             |   |
| (iii) Power(KW)                                    |   |
| (iv) Heat Generated in MKS Units                   |   |
| (v) Footprint area requirement for Network         |   |
| Infrastructure and Campus wide WiFi Network        |   |
| Solution   |   |
| (vi) Any other requirements                        |   |
| System software Included in the Offer:             |   |
| •  |   |
|  |   |
| Witness  |   |
|  |   |
| Signature  | Company Seal                                      |
|  |   |
|  |   |
|  |   |
| Name :   |   |
|  |   |
| Address:   |   |
|  |   |
| Date :   |   |
|  |   |
|  |   |

Tender No.:

# PROFORMA 04

# **Recommended Tools and Tests Equipment**

| SL. NO. | DESCRIPTIONOF<br>THE ITEM | MAKE<br>ANDMODEL NO | QTY. | UNITPRICE      | SUB-TOTAL |
|---------|---------------------------|---------------------|------|----------------|-----------|
|         |                           |                     |      |                |           |
|         |                           |                     |      |                |           |
|         |                           |                     |      |                |           |
|         |                           |                     |      | Total          |           |
|         |                           |                     |      | Freight        |           |
|         |                           |                     |      | Insurance      |           |
|         |                           |                     |      | Taxes          |           |
|         |                           |                     |      | Duties         |           |
|         |                           |                     |      | (Customs Duty, |           |
|         |                           |                     |      | Excise Duty)   |           |
|         |                           |                     |      | Total          |           |

| Witness   |              |
|-----------|--------------|
| Signature | Company Seal |
|           |              |
|           |              |
| Name :    |              |
| Address : |              |
| Date :    |              |
|           |              |

Tender No.:

# PROFORMA 05

# **Recommended spares**

| SL. NO. | DESCRIPTIONOF<br>THE ITEM | Part No. | QTY. | UNITPRICE      | SUB-TOTAL |
|---------|---------------------------|----------|------|----------------|-----------|
|         |                           |          |      |                |           |
|         |                           |          |      |                |           |
|         |                           |          |      |                |           |
|         |                           |          |      | Total          |           |
|         |                           |          |      | Freight        |           |
|         |                           |          |      | Insurance      |           |
|         |                           |          |      | Taxes          |           |
|         |                           |          |      | Duties         |           |
|         |                           |          |      | (Customs Duty, |           |
|         |                           |          |      | Excise Duty)   |           |
|         |                           |          |      | Total          |           |

| Witness   |              |
|-----------|--------------|
| Signature | Company Seal |
|           |              |
| Name :    |              |
| Address:  |              |
| Date :    |              |

Tender No.:

# **PROFORMA 06**

# Details of the training. (The proposed training should be in English).

| Course<br>Module | Place<br>Training | of | Duration | No.<br>Trainees | of | Requirement | Fees<br>Trainee | per |
|------------------|-------------------|----|----------|-----------------|----|-------------|-----------------|-----|
|                  |                   |    |          |                 |    |             |                 |     |
|                  |                   |    |          |                 |    |             |                 |     |
|                  |                   |    |          |                 |    |             |                 |     |
|                  |                   |    |          |                 |    |             |                 |     |
|                  |                   |    |          |                 |    | Total       |                 |     |

| Witness       |              |
|---------------|--------------|
| Signature     | Company Seal |
|               |              |
| Name :        |              |
| Designation : |              |
| Address:      |              |
| Date :        |              |

#### **CHAPTER 5**

### **Qualification Requirements**

The Bidder shall furnish documentary evidence along with Technical Bid to support the following Qualification Criteria:

1) The bidder shall furnish documentary evidence to demonstrate that the bidder satisfies the bidders' eligibility criteria, as mentioned in ITB Clause 1.1.2in the form as per Annexure-K of Chapter-8.

### 2) Financial Qualifying Criteria:

The Bidder shall furnish documentary evidence to meet the following Financial Qualifying Criteria:

- a) An **undertaking (self-certificate)** is to be submitted that the Organization has not been blacklisted during last 3 years by any Central / State Government Department/Organization in the form as per **Annexure-L of Chapter-8**.
- b) The Creditworthy report MIRA inform report of the OEM / Principal supplier for the Current Financial Year is to be enclosed along with the Technical Bid if the total price of the Equipment/System is more than Rs. 1 crore (Rs.10 million). The minimum rating for Financial Qualification is Rating-Ba.

The Creditworthy Report may be obtained from:

M/s. MIRA INFORM PRIVATE LIMITED, 605, Palmspring, Near D'Mart, Link Road, Malad (West), Mumbai: 400 064:

Tel Nos.: 022 - 40448000 (44 lines) Fax No. 022-0448045 / 40448046;

E-mail: mira@mirainform.com; info@mirainform.com

Website: http://www.mirainform.com

Note: The creditworthy report from other reputed and equivalent firms (such as Dun & Bradstreet) is also acceptable. However, report should have been obtained after 1st April 2018.

The Bidder should be a manufacturer /authorized representative of a manufacturer who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the "Technical Specification". The **Manufacturers' Authorization Form** Chapter-8: Annexure B must be enclosed with the technical bid.

#### 4) Experience and Technical Capacity:

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

- a) The bidder should have supplied, installed and commissioned during past 3 years at least two similar type of projects as mentioned in Chapter -4. The bidder should furnish the information on all past supplies and satisfactory performance during past 3 years in the Performance Statement Form (Chapter 8, Annexure D). Bidder shall invariably furnish documentary evidence (Client Certificate) in support of the satisfactory operation of the equipment / system.
- b) Equipment / System offered must be of the most recent series/models (released after 01.01.2017) incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening.
- c) Experience and technical qualification criteria should be fulfilled as specified in Chapter 4
- d) Details of Service Centres and information on service support facilities that would be provided after the warranty period (in the **Service Support Form** Chapter-8 Annexure-F).

- e) That adequate and specialized expertise is already available **or** will be made available following the execution of the contract in the Purchaser's country, to ensure that **the support services are responsive and adequate** as per **ITB 1.13.2(c)**.
- 5) The Indian Agents of foreign manufacturers/ suppliers quoting directly on behalf of their principals for items appearing in the **restricted list of the current EXIM policy of the Govt. of India** must be registered with DGS&D.
- Either the Indian Agent on behalf of the foreign principal or the foreign principal directly could bid in a tender **but not both**. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. Further, to maintain sanctity of tendering system **one Indian agent cannot represent two different foreign principals in one tender**.

The bidders who do not fulfil the above Eligibility, Financial and Technical Qualification Criteria shall be rejected during the Evaluation of Technical Bid.

### **CHAPTER 6-: PRICE SCHEDULE**

| Sr. No. | Item Description   | INR Component | USD Component |
|---------|--|---------------|---------------|
| (1)     | Supply of Network Infrastructure as per  |               |               |
|         | specifications   |               |               |
|         | (System cost + Training + Installation +   |               |               |
|         | Warranty 3 years including taxes, duties & levis)                                      |               |               |
| (2)     | Comprehensive AMC for Network Infrastructure   |               |               |
|         | as per specifications for 4th, 5th & 6th year  |               |               |
|         | including support charges.(including taxes) Each                                       |               |               |
|         | year charges may be provided in separate sheet.  |               |               |
| (3)     | Supply of <b>Security Surveillance Solution</b> As per                                 |               |               |
|         | specification  |               |               |
|         | (System cost + Training + Installation + Warranty                                      |               |               |
|         | 3 years including taxes, duties & levis)   |               |               |
| (4)     | Comprehensive AMC for Security Surveillance  |               |               |
|         | Solution as per specifications for 4th, 5th & 6th                                      |               |               |
|         | year including support charges.(including taxes)                                       |               |               |
|         | Each year charges may be provided in separate  |               |               |
| (=)     | sheet.   |               |               |
| (5)     | Supply of Campus wide WiFi Network Solution  |               |               |
|         | As per specification   |               |               |
|         | (System cost + Training + Installation + Warranty                                      |               |               |
| (0)     | 3 years including taxes, duties & levis)   |               |               |
| (6)     | Comprehensive AMC for Campus wide WiFi Network Solution as per specifications for 4th, |               |               |
|         | 5 <sup>th</sup> & 6 <sup>th</sup> year including support                               |               |               |
|         | charges.(including taxes) Each year charges may  |               |               |
|         | be provided in separate sheet.   |               |               |
| (7)     | Supply of <b>Passive Components</b> As per   |               |               |
| (')     | specification  |               |               |
|         | (System cost + Training + Installation + Warranty                                      |               |               |
|         | 3 years including taxes, duties & levis)   |               |               |
| (8)     | Comprehensive AMC for Passive Components   |               |               |
| (-)     | as per specifications for 4th, 5th & 6th year  |               |               |
|         | including support charges (including taxes) Each                                       |               |               |
|         | year charges may be provided in separate sheet.  |               |               |
| (9)     | Manpower Support Charges for entire solution   |               |               |
|         | for 3 years during warranty period including   |               |               |
|         | taxes - Two Manpower   |               |               |
| (10)    | Manpower Support Charges for entire solution   |               |               |
|         | for 3 years during CAMC period including taxes -                                       |               |               |
|         | Two Manpower   |               |               |
| (11)    | TOTAL  |               |               |
| (40)    | T D D 1  |               |               |
| (12)    | Less Buy Back cost of the Items listed in  |               |               |
|         | Annexure-III   |               |               |
| (13)    | Grand Total  |               |               |

Note: The prices mentioned at Sr. No. 13 should exactly be submitted at e-procurement website (Price Bid) and soft copies of price schedule along with relevant chapter 6A & 6B have to be uploaded on e-procurement web portal. The prices submitted on e-procurement website will treated as final and comparison will based on the said prices only. Details of taxes, duties & levies applicable has to be given. Falling to provide the breakup of taxes, duties & levies will result in rejecting the bid. Bifurcation of the above cost has to be given in the separate sheet

| Note : Details of breakup of each item shall | I submitted as per format giv | en in Chapter 6 of the R | FP Document |
|--|-------------------------------|--------------------------|-------------|
|  |                               |                          |             |

| Note : Details of breakup of each | ch item shall submitted as per format given in Chapter 6 of the RFP Document |
|-----------------------------------|--|
| Signature                         | Company Seal   |
| Name :                            |  |
| Address :                         |  |
| Date :                            |  |

# INDIAN INSTITUTE OF TROPICAL METEOROLOGY CHAPTER 6- A:PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD (Bidder should quote in this format however, if quoted in different format; all parameters given below should be covered) Name of Firm Tender No. **Tender Date Ouotation No Quotation Date** Bid Valid Upto Country of Origin Currency Catalogue, Part/Model No. of Item No. Specification of Item No. Quantity Unit **Description of Item** Sr. No. Rate **Amount** Item Name a) Network Infrastructure b) Security Surveillance Solution c) Campus wide WiFi Network Solution d) Passive Components Required Spares/ Consumables (if 2 any) a) Network Infrastructure b) Security Surveillance Solution c) Campus wide WiFi Network Solution d) Passive Components 3 Accessories (if any) Additional Items 4 Total Ex-Works Price (-) LESS: Discount % (if any) Net Ex-Works Price (+) Packing & Forwarding Charges (+) Inland Freight Charges (INCO TERM): FOB / FCA International Airport, (+) Freight upto Mumbai & Insurance Charges CIF / CIP MUMBAI Price (+) Transpotation Charges upto IITM Pune & Insurance Charges **DDP Prices** Approximate Weight of the Consignment Approximate Dimensions of the Consignment TENDER CLAUSE NO. **TERM CONDITION** Mode of Shipment (By Air/ GCC/SCC 2.15.3 SEA / Road) Delivery GCC 2.15.2

|                          | Torm  |                          |                |  |  |
|--------------------------|---|--------------------------|----------------|--|--|
|                          | Term<br>(INCOTERM)                                |                          |                |  |  |
|                          | Delivery<br>Schedule                              |                          |                |  |  |
|                          | Period of delivery shall count                    |                          |                |  |  |
|                          | from  |                          |                |  |  |
| CHAPTER 3                | Time Frame required for conducting Installation & |                          |                |  |  |
|                          | commissioning of the                              |                          |                |  |  |
|                          | equipment, Acceptance Test,                       |                          |                |  |  |
|                          | Training, etc. Port of                            |                          |                |  |  |
|                          | destination                                       | Mumbai, India            |                |  |  |
|                          | Final Destination                                 | IITM Pune                |                |  |  |
|                          | a) Installation & Commiss                         | ioning Charges (Ir       | cluding Tax)   |  |  |
|                          | i) Network Infrastructure                         |                          |                |  |  |
|                          | ii) Security Surveillance<br>Solution             |                          |                |  |  |
|                          | iii) Campus wide WiFi                             | 1                        |                |  |  |
|                          | Network Solution                                  |                          |                |  |  |
|                          | iv) Passive Components                            |                          |                |  |  |
| Chapter 4 Clause no. 4.2 | Total   |                          |                |  |  |
| Chapter 4 Clause no. 4.2 | b) Training Details & Charges (Including Tax)     |                          |                |  |  |
|                          | i) Network Infrastructure                         |                          |                |  |  |
|                          | ii) Security Surveillance<br>Solution             |                          |                |  |  |
|                          | iii) Campus wide WiFi                             |                          |                |  |  |
|                          | Network Solution iv) Passive Components           |                          |                |  |  |
|                          | Total   |                          |                |  |  |
| GCC/SCC 2.20(c)          |   | <br>Warranty             |                |  |  |
| 000,000 2.20(0)          | 3,1   | Period                   | Charges if any |  |  |
|                          | i) Network Infrastructure                         | 1st Year                 | gov is single  |  |  |
|                          |   | 2nd Year                 |                |  |  |
|                          |   | 3rd Year                 |                |  |  |
|                          |   | Total                    |                |  |  |
|                          | ii) Security Surveillance<br>Solution             | 1st Year                 |                |  |  |
|                          |   | 2nd Year                 |                |  |  |
|                          |   | 3rd Year                 |                |  |  |
|                          |   | Total                    |                |  |  |
|                          | iii) Campus wide Wi-Fi                            |                          |                |  |  |
|                          | Network Solution                                  | 1st Year                 |                |  |  |
|                          |   | 2nd Year                 |                |  |  |
|                          |   | 3rd Year                 |                |  |  |
|                          | iv) Passive Components                            | <b>Total</b><br>1st Year |                |  |  |
|                          | - Trassive domponents                             | 2nd Year                 |                |  |  |
|                          |   | 3rd Year                 |                |  |  |
|                          |   | Jiu ieai                 |                |  |  |

|                               |                           |                                    | Total  |                |
|-------------------------------|---------------------------|------------------------------------|--|----------------|
|                               | Total of all wa           | arrantv                            | Total  |                |
|                               | (i+ii+iii+iv)             |                                    |  |                |
|                               |                           |                                    | 1st Year                                     |                |
|                               |                           |                                    | 2nd Year                                     |                |
|                               |                           |                                    | 3rd Year                                     |                |
|                               |                           |                                    | Total  |                |
|                               |                           | + Inst.+Trg.+ Wa<br>ıring Warranty | rranty+                                      |                |
| Chapter 4 Clause no. 4.6 (ii) |                           | Compre                             | hensive AMC                                  |                |
|                               |                           |                                    | Period                                       | Charges if any |
|                               | i) Network Inf            | rastructure                        | 1st Year                                     |                |
|                               |                           |                                    | 2nd Year                                     |                |
|                               |                           |                                    | 3rd Year                                     |                |
|                               |                           |                                    | Total  |                |
|                               | ii) Security Surveillance |                                    | 1st Year                                     |                |
|                               | Solution                  |                                    | 2nd Year                                     |                |
|                               |                           |                                    | 3rd Year                                     |                |
|                               |                           |                                    | Total  |                |
|                               | iii) Campus wi            |                                    | 1st Year                                     |                |
|                               | Network Solut             | ion                                | 2nd Year                                     |                |
|                               |                           |                                    | 3rd Year                                     |                |
|                               |                           |                                    | Total  |                |
|                               | iv) Passive Cor           | mponents                           | 1st Year                                     |                |
|                               |                           |                                    | 2nd Year                                     |                |
|                               |                           |                                    | 3rd Year                                     |                |
|                               |                           |                                    | Total  |                |
|                               |                           | mprehensive AM                     |  |                |
|                               | for entire solut          | Support Charges tion for 3 years   | 1st Year                                     |                |
|                               |                           | period including                   | 2nd Year                                     |                |
|                               | taxes - Two Manpower      |                                    | 3rd Year                                     |                |
|                               |                           |                                    | Total  |                |
|                               | B) Total ( all (          | Comprehensive A<br>during C-AM(    | AMC + Manpower                               |                |
|                               | C) (-) Less Buy           | y Back cost of the                 | Items  |                |
|                               |                           | GRAN                               | D TOTAL (A+B-C)                              |                |
| GCC/SCC 2.21.1                | Payment Term              | 1                                  |  |                |
| GCC/SCC 2.21.1 (d)            | Bank<br>Charges           |                                    | o IITM account and (<br>beneficiary's accour |                |

# **SIGNATURE OF AUTHORISED PERSON**

| AND AN INCOMPUTE OF TRANSPORTAL METEROPOLOGY  |   |                   |                     |  |                |       |
|---|---|-------------------|---------------------|--|----------------|-------|
| INDIAN INSTITUTE OF TROPICAL METEOROLOGY  |   |                   |                     |  |                |       |
|   | CHAPTER 6- B:PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA  |                   |                     |  |                |       |
| (Bido   | (Bidder should quote in this format however, if quoted in different format; all parameters given below should be covered) |                   |                     |  |                |       |
|   | Name of Firm  |                   | ,                   |  |                |       |
|   | Tender No.  |                   |                     |  | Tender         |       |
|   |   |                   |                     |  | Date Quotation |       |
|   | Quotation No  |                   |                     |  | Date           |       |
|   | Bid Valid Upto  |                   |                     |  | •              |       |
|   | 0 . 1   |                   |                     |  |                |       |
|   | Catalogue, Part/Model   |                   |                     |  |                |       |
|   |   | tion of Item No.  |                     |  |                | (D.)  |
| Sr. No.   | Description of Item   | Quantity          | Unit                | Rate                                     | Amount         | (Rs.) |
| 1   | Item Name   |                   |                     |  |                |       |
|   | a) Network Infrastructure   |                   |                     |  |                |       |
|   | b) Security Surveillance<br>Solution  |                   |                     |  |                |       |
|   | c) Campus wide WiFi<br>Network Solution   |                   |                     |  |                |       |
|   | d) Passive Components   |                   |                     |  |                |       |
| 2   | Required Spares/<br>Consumables (if any)  |                   |                     |  |                |       |
|   | a) Network Infrastructure   |                   |                     |  |                |       |
|   | b) Security Surveillance<br>Solution  |                   |                     |  |                |       |
|   | c) Campus wide WiFi<br>Network Solution   |                   |                     |  |                |       |
|   | d) Passive Components   |                   |                     |  |                |       |
| 3   | Accessories (if any)  |                   |                     |  |                |       |
| 4   | Additional Items  |                   |                     |  |                |       |
|   |   |                   |                     | Total Ex-Works Price                     |                |       |
|   |   |                   | (-) LES             | SS: Discount % (if any)                  |                |       |
|   |   |                   |                     | Net Ex-Works Price                       |                |       |
|   | Excise Duty : Ex  | xempted against l | Notification No.10, | /97 applicable to IITM                   |                |       |
|   |   |                   | (+) Packing &       | & Forwarding Charges                     |                |       |
|   |   |                   | (+) Tı              | ransportation Charges                    |                |       |
|   |   |                   |                     | GST Charges :                            |                |       |
| (IITM is  | s having GST Concession an<br>(I  |                   |                     | 5% on supplies only) ne tender document) |                |       |
| SUB TOTAL   |   |                   |                     |  |                |       |
| Local Body Tax: IITM is exempted vide PMC Reg. No. LBT-005-0064836 for supplies from outside Pune Muncipal Corporation limits |   |                   |                     |  |                |       |
|   |   |                   |                     | Grand Total                              |                |       |
|   | Approximate Weight o  | of the Consignmen | nt                  | Approximate Dir                          |                | he    |
| Consignation the consignment Consignment Consign  |   |                   |                     | iment                                    |                |       |

| TENDER CLAUSE NO.        | TERM  |                   | DITION  |  |
|--------------------------|---|-------------------|---|--|
| GCC/SCC 2.15.3           | Mode of Shipment  | (By Air/<br>Road) | ·   |  |
| GCC 2.15.2               | Delivery Term   | Free Del          |   |  |
|                          | Delivery Schedule   |                   |   |  |
|                          | Period of delivery shall count from   |                   | As enclosed in<br>Technical Bid as<br>per Chapter 3 |  |
| CHAPTER 3                | Time Frame required for conducting Installation & commissioning of the equipment, Acceptance Test, Training, etc. | n per Cl          |   |  |
|                          | Port of destination   | Mumbai            | , India   |  |
|                          | Final Destination   | IITM Pu           | ne  |  |
|                          | a) Installation & Commissioning Charge  | s (Including      | g Tax)  |  |
|                          | i) Network Infrastructure   |                   |   |  |
|                          | ii) Security Surveillance Solution  |                   |   |  |
|                          | iii) Campus wide WiFi Network Solution  |                   |   |  |
|                          | iv) Passive Components  |                   |   |  |
| Chapter 4 Clause no. 4.2 | Total   |                   |   |  |
| Chapter 4 Clause no. 4.2 | b) Training Details & Charges (Inc  | luding Tax)       |   |  |
|                          | i) Network Infrastructure   |                   |   |  |
|                          | ii) Security Surveillance Solution  |                   |   |  |
|                          | iii) Campus wide WiFi Network Solution  |                   |   |  |
|                          | iv) Passive Components  |                   |   |  |
|                          | Total   |                   |   |  |
| GCC/SCC 2.20(c)          | c) Warranty   |                   |   |  |
|                          |   | Period            | Charges<br>if any                                   |  |
|                          | i) Network Infrastructure   | 1st Year          |   |  |
|                          |   | 2nd Year          |   |  |
|                          |   | 3rd Year          |   |  |
|                          |   | Total             |   |  |
|                          | ii) Security Surveillance Solution  | 1st Year          |   |  |
|                          |   | 2nd Year          |   |  |
|                          |   | 3rd Year          |   |  |
|                          |   | Total             |   |  |
|                          | iii) Campus wide WiFi Network Solution  | 1st Year          |   |  |
|                          |   |                   |   |  |
|                          |   | 3rd Year          |   |  |
|                          |   | Total             |   |  |
|                          | iv) Passive Components  | 1st Year          |   |  |
|                          |   | 2nd Year          |   |  |
|                          |   | 3rd Year          |   |  |
|                          |   | Total             |   |  |
|                          | Total of all warranty (a+b+c+d)   |                   |   |  |

|                               | ) M C : C!  | C · ·                                  |          |                |
|-------------------------------|---|--|----------|----------------|
|                               | v) Manpower Support Char<br>solution for 3 years during |  | 1st Year |                |
|                               | including taxes - Two Manpower                          |  | 2nd Year |                |
|                               |   |  | 3rd Year |                |
|                               |   |  | Total    |                |
|                               | A) Grand Total + Inst.+Tr<br>Manpower during Warra      |  |          |                |
| Chapter 4 Clause no. 4.6 (ii) | Co  | omprehensive AMC                       |          |                |
|                               |   |  | Period   | Charges if any |
|                               | i) Network Infrastructure                               |  | 1st Year |                |
|                               |   |  | 2nd Year |                |
|                               |   |  | 3rd Year |                |
|                               |   |  | Total    |                |
|                               | ii) Security Surveillance So                            | lution                                 | 1st Year |                |
|                               |   |  | 2nd Year |                |
|                               |   |  | 3rd Year |                |
|                               |   |  | Total    |                |
|                               | iii) Campus wide WiFi Netv                              | work Solution                          | 1st Year |                |
|                               |   |  | 2nd Year |                |
|                               |   |  | 3rd Year |                |
|                               |   |  | Total    |                |
|                               | iv) Passive Components                                  |  | 1st Year |                |
|                               |   |  | 2nd Year |                |
|                               |   |  | 3rd Year |                |
|                               |   |  | Total    |                |
|                               | Total of all Comprehensiv                               | ve AMC (a+b+c+d)                       |          |                |
|                               | v) Manpower Support Char                                |  | 1st Year |                |
|                               | solution for 3 years during including taxes - Two Man   |  | 2nd Year |                |
|                               | menuming taxes - 1 wo Mail                              | 20 W C1                                | 3rd Year |                |
|                               |   |  | Total    |                |
|                               | B) Total ( all Compre<br>Manpower dur                   |  |          |                |
|                               | C) (-) Less Buy Bank cost                               | of the Items                           |          |                |
|                               | GRA   | ND TOTAL (A+B-C)                       |          |                |
| GCC/SCC 2.21.1                | Payment Term  |  |          |                |
| GCC/SCC 2.21.1 (d)            | Bank Charges  | Inside India to IITM<br>India to benef |          |                |

# **SIGNATURE OF AUTHORISED PERSON**

# CHAPTER 6- C: PRICE SCHEDULE (Bill of Quantity)

(Bidder should quote in this format however, if quoted in different format; all parameters given below should be covered)

Tender No:

Tender Date:

| Quotation No |  | ender Date:<br>Ouo | tation Vali   | d Unto                 |                        |
|--------------|--|--------------------|---------------|------------------------|------------------------|
| Sr. No.      | Item Description   | Qty                | Unit<br>Price | Taxes, Duties & levies | Total<br>DDP<br>Prices |
| Α            | Supply and installation of Network Infrastructure                                  |                    |               |                        |                        |
| 1.           | Main Core Chassis Switch   | 1                  |               |                        |                        |
| 2.           | HPC Core Chassis Switch  | 1                  |               |                        |                        |
| 3.           | CCCR Core Chassis Switch   | 1                  |               |                        |                        |
| 4.           | 24 Port Access Switch  | 7                  |               |                        |                        |
| 5.           | 48 Port Access Switch  | 32                 |               |                        |                        |
| 6.           | 12 ports 10GE/1GE Switch with 6*10GE MM  | 02                 |               |                        |                        |
|              | Modules and 6*1GE Copper SFP Modules   | <u> </u>           |               |                        |                        |
| 7.           | 12 ports 10GE/1GE Switch with 2*10GE SM Modules and 10*1GE Copper SFP Modules:     | 01                 |               |                        |                        |
| 8.           | 10GE SFP+ MM Modules   | 54                 |               |                        |                        |
| 9.           | 10GE SFP+ SM Modules   | 02                 |               |                        |                        |
| 10.          | 1GE SFP Copper Modules   | 22                 |               |                        |                        |
| 11.          | Network Monitoring System  | 01                 |               |                        |                        |
| 12.          | AMC for 3 year After Warranty Period of 3 year (Year Wise breakup may be provided) | OI.                |               |                        |                        |
|              | Total A  |                    |               |                        |                        |
| В            | Supply and installation Security Surveillance                                      |                    |               |                        |                        |
| <b>13</b> .  | Network Video Recorder   | 01                 |               |                        |                        |
| 14.          | Indoor Camera  | 22                 |               |                        |                        |
| <b>1</b> 5.  | Outdoor Camera   | 12                 |               |                        |                        |
| <b>16</b> .  | 25"Full HD LED Monitor with Wall mount Kit   | 02                 |               |                        |                        |
| 17.          | AMC for 3 year After Warranty Period of 3  |                    |               |                        |                        |
|              | year (Year Wise breakup may be provided)   |                    |               |                        |                        |
|              | Total B  |                    |               |                        |                        |
| С            | Supply and installation of Campus wide Wifi<br>Network                             |                    |               |                        |                        |
| 18.          | Wireless Controller  | 01                 |               |                        |                        |
| 19.          | Indoor Access Points   | 54                 |               |                        |                        |
| 20.          | Outdoor Access Point   | 20                 |               |                        |                        |
| 21.          | AMC for 3 year After Warranty Period of 3  |                    |               |                        |                        |
|              | year (Year Wise breakup may be provided)   |                    |               |                        |                        |
|              | Total C  |                    |               |                        |                        |
| D            | Passive Components   |                    |               |                        |                        |
| 22.          | Supply, laying, termination of CAT-6 E UTP   | Approx.            |               |                        |                        |
|              | cable 4 pair (Dlink/ Finolex/ Polycab or   | 7000               |               |                        |                        |
|              | equivalent ) in existing wall/cable  | Mtr.               |               |                        |                        |
|              | tray/casing patti.   |                    |               |                        |                        |
| 23.          | Supply and fixing of 25mm dia pvc  | Approx.            |               |                        |                        |
|              | pipes/casing patti/flexible cacing   | 100 Mtr.           |               |                        |                        |
|              | /clamped in the existing wall/cable tray   |                    |               |                        |                        |
|              | with suitable supports for CAT-6 cables  |                    |               |                        |                        |
| 24.          | Supply and laying of underground 1" HDPE   | Approx.            |               |                        |                        |
|              | pipe along with excavation of ground to a  | 2500 Mtr           |               |                        |                        |
|              | depth of 3 feet level and width of 1 feet  |                    |               |                        |                        |
|              | and refilling etc. for laying the HDPE pipe.                                       |                    |               |                        |                        |
|              | Extra earth after re-filling to be levelled in                                     |                    |               |                        |                        |
|              | low lying area as directed by the Site in-   |                    |               |                        |                        |
|              | charge. (For Perimeter fencing)  |                    |               |                        |                        |
| 25.          | Supply, laying, termination of Multimode   | Approx.            |               |                        |                        |
|              | OM4 Fibre optic cable: - 6 core multimode  | 1000               |               |                        |                        |
|              | fibre cable.   | Mtr.               |               | 1                      | <u> </u>               |
| 26.          | LIU: 24 core fiber supported OM4 MM LIU  | 01 Nos.            |               |                        |                        |

|     | fully loaded with Conistails  |          |   |   |   |
|-----|---|----------|---|---|---|
| 0.7 | fully loaded with Sc pigtails   | 02 Nac   |   |   |   |
| 27. | LIU: 06 core fiber supported OM4 MM LIU   | 03 Nos.  |   |   |   |
| 00  | fully loaded with Sc pigtails   | 40 No.   |   |   |   |
| 28. | Patch Cords: 2 Mtr. LC/SC multimode   | 12 Nos.  |   |   |   |
| 20  | fibre patch cord  | A        |   |   |   |
| 29. | Supply, laying, termination of Single mode  | Approx.  |   |   |   |
|     | OM4 Fibre optic cable: - 6 core Single  | 500 Mtr  |   |   |   |
| 20  | mode fibre cable.   | OO Noo   |   |   |   |
| 30. | LIU: 06 core fiber supported OM4 SM LIU   | 02 Nos.  |   |   |   |
| 24  | fully loaded with Sc pigtails   | O4 Nos   |   |   |   |
| 31. | Patch Cords: 2 Mtr. LC/SC Single mode   | 04 Nos.  |   |   |   |
| 20  | fibre patch cord  | OO Noo   |   |   |   |
| 32. | 5 to 8 Mtr height GI pole depending on  | 28 Nos.  |   |   |   |
|     | location with necessary mounting bracket  |          |   |   |   |
|     | and Civil works for outdoor AP.(Above Ground Level)                                   |          |   |   |   |
| 33. | Supply of CAT 6 patch cords of 2 Mtr.   | 400 Nos. |   |   |   |
| 33. | (Dlink/ Finolex/ Polycab or equivalent)   | 400 NOS. |   |   |   |
| 34. | 6U wall mounted rack made out of powder   | 04 Nos.  |   |   |   |
| J4. | coated materials with Cooling fans, glass   | UT NUS.  |   |   |   |
|     | door in front side. The rack shall be   |          |   |   |   |
|     | provided with suitable power  |          |   |   |   |
|     | sockets/strips, lock and key, cable   |          |   |   |   |
|     | manager etc.  |          |   |   |   |
| 35. | 12U wall mounted rack made out of   | 01 Nos.  |   |   |   |
| 00. | powder coated materials with Cooling  | 021100.  |   |   |   |
|     | fans, glass door in front side. The rack  |          |   |   |   |
|     | shall be provided with suitable power   |          |   |   |   |
|     | sockets/strips, lock and key, cable   |          |   |   |   |
|     | manager etc.  |          |   |   |   |
| 36. | Institute has existing racks at the site  |          |   |   |   |
|     | where there is already having switches and  |          |   |   |   |
|     | fiber cable termination. Vendor has to  |          |   |   |   |
|     | inspect the site and decide on using the  |          |   |   |   |
|     | existing rack. In case the new racks are  |          |   |   |   |
|     | required the same may be considered in  |          |   |   |   |
|     | their solutions. Cost of the same will be   |          |   |   |   |
|     | considered in TCO and evaluation of lowest  |          |   |   |   |
|     | bid.  |          |   |   |   |
| 37. | Note: The quantity mentioned at Sr.No   |          |   |   |   |
|     | 1,2,3,4,8 are approximate and will be   |          |   |   |   |
|     | considered for L1 evaluation. However   |          |   |   |   |
|     | payment for the same will be made at  |          |   |   |   |
|     | actual running meter.   |          |   |   |   |
| 38. | AMC for 3 year After Warranty Period of 3   |          |   |   |   |
|     | year (Year Wise breakup may be provided)  |          |   |   |   |
| _   | Total D   |          |   |   |   |
| E   | Manpower Support Charges for entire   |          |   |   |   |
| 39. | Manpower Support Charges for entire   |          |   |   |   |
|     | solution for 3 years during warranty period including taxes - Two Manpower (Year Wise |          |   |   |   |
|     |   |          |   |   |   |
| 40. | breakup may be provided)  |          |   |   |   |
| 40. | Manpower Support Charges for entire   |          |   |   |   |
|     | solution for 3 years during warranty period   |          |   |   |   |
|     | including taxes - Two Manpower (Year Wise breakup may be provided)                    |          |   |   |   |
|     | Total E   |          |   |   |   |
|     | Grand Total (A+B+C+D+E)   |          |   |   |   |
|     | - 131/AUG 101/AL(ATSTLTITE)   |          | Ì | I | I |

#### **CHAPTER 7**

| Co | nt | ract | : Fo | rm | ١ |
|----|----|------|------|----|---|
|----|----|------|------|----|---|

| Contract No.           | Date:   |
|------------------------|---|
| THIS CONTRA            | CT AGREEMENT is made                              |
| the [ <b>insert: n</b> | mber ]day of [ insert: month ], [ insert: year ]. |

- (1) Indian Institute of Tropical Meteorology registered under the Societies Registration Act 1860 of the Government of India having its registered office at Dr. Homi Bhabha Road, Pashan, Pune 411 008, India (hereinafter called "the Purchaser"), and
- [Insert name of Supplier], a corporation incorporated under the laws of [Insert: country of Supplier] and having its principal place of business at [Insert: address of Supplier] (hereinafter called "the Supplier").

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(les)] (hereinafter called "the Contract Price").

#### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

**BETWEEN** 

- 01. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- O2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:

| (a) | This Contract Agreement  |
|-----|--|
| (b) | General Conditions of Contract   |
| (c) | Special Conditions of Contract   |
| (d) | Technical Requirements (including Schedule of Requirements and Technical Specifications) |
| (e) | The Supplier's Bid and original Price Schedules  |
| (f) | The Purchaser's Notification of Award  |
| (g) | [Add here any other document(s)]   |

- O3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
- 04. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- O5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Indian Institute of Tropical Meteorology, Pune

Signed: [insert signature]

in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

Signed : [ insert signature ]

in the capacity of [ insert title or other appropriate designation ] in the presence of [ insert identification of official witness ]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

# **CHAPTER 8**

# **OTHER STANDARD FORMS**

| Sr. No. | Name of the Form                          | Annexure |
|---------|---|----------|
| 1       | Bidder Information Form                   | А        |
| 2       | Manufacturers' Authorization Form         | В        |
| 3       | Bid Security Form / Earnest Money Deposit | С        |
| 4       | Performance Statement Form                | D        |
| 5       | Deviation Statement Form                  | E        |
| 6       | Service Support Detail Form               | F        |
| 7       | Bid Form                                  | G        |
| 8       | Performance Security Form                 | н        |
| 9       | Acceptance Certificate Form               | I        |
| 10      | Indemnity Bond                            | J        |
| 11      | Eligibility Certificate                   | К        |
| 12      | Non Black List Certificate                | L        |
| 13      | Warranty                                  | М        |
| 14      | Declaration                               | N        |
| 15      | Power of Attorney                         | o        |

NOTE: The Successful Bidder shall submit Documents with reference to Annexure – H, I & J after Award of Contract as mentioned in Purchase Order.

# **Bidder Information Form**

(a) [The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No ::[insert number from Invitation for bids]

| 01. | Bidder's Legal Name [insert Bidder's legal name]  |
|-----|---|
| 02. | In case of JV, legal name of each party: [insert legal name of each party in JV]                              |
| 03. | Bidder's actual or intended Country of Registration: [insert actual or intended Country of                    |
|     | Registration]   |
| 04. | Bidder's Year of Registration: [insert Bidder's year of registration]   |
| 05. | Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration] |
| 06. | Bidder's Authorized Representative Information  |
|     | Name: [insert Authorized Representative's name]   |
|     | Address: [insert Authorized Representative's Address]   |
|     | Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers]                             |
|     | Email Address: [insert Authorized Representative's email address]   |
| 07. | Attached are copies of original documents of:   |
|     | Articles of Incorporation or Registration of firm named in 1, above.  |

| Signature of Bidder |  |
|---------------------|--|
| Name                |  |
| Business Address    |  |

#### **MANUFACTURERS' AUTHORIZATION FORM**

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No. :[insert number from Invitation For Bids]

To : [insert complete name and address of Purchaser]

#### WHFRFAS

We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 2.20 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

| Duly authorized to sign | this Authorization on b | ehalf of: [insert o | complete name o    | fBidder] |
|-------------------------|-------------------------|---------------------|--------------------|----------|
| Dated on                | day of                  |                     | insert date of sig | ning]    |

# **BID SECURITY FORM**

| Wherea                       | s  |
|------------------------------|--|
| (hereina                     | after called the tenderer)   |
| has sub                      | mitted their offer dated   |
| for the                      | supply of  |
| (hereina                     | after called the tender)   |
| Against                      | the Purchaser's Tender No  |
| KNOW                         | ALL MEN by these presents that WE  |
| of                           | having our registered office at(hereinafter called the "Purchaser")  |
|                              | are bound unto(hereinafter called the "Purchaser")   |
| In                           | the sum of   |
|                              | ch payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and by these presents. Sealed with the Common Seal of the said Bank thisday of   |
| THE CO                       | NDITIONS OF THIS OBLIGATION ARE:   |
| (1)                          | If the tenderer withdraws or amends or modifies or impairs or derogates from the Tender in any respect within the period of validity of this tender.   |
| (2)                          | If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity  |
| (3)                          | If the tenderer fails to furnish the Performance Security for the due Performance of the contract.   |
| (4)                          | Fails or refuses to accept/execute the contract.   |
| the Pur<br>amount<br>occurre | ertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without chaser having to substantiate its demand, provided that in its demand the Purchaser will note that the claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the d condition or conditions.                          |
|                              | arantee will remain in force up to and including 45 days after the period of tender validity and any in respect thereof should reach the Bank not later than the above date.   |
|                              | (Signature of the authorized officer of the Bank)  |
| Duo                          | Name and designation of the officer<br>Seal, name & address of the Bank and address of the   |
| Branch                       |  |
| Note:                        | Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc. |

# **PERFORMANCE STATEMENT FORM**

# Details of similar equipment / systems supplied & installed during past 3 years in India & Abroad

| Order Placed by<br>(full address of<br>Purchaser) | Order No.<br>and date | Description and quantity of ordered equipment | Value<br>of<br>order | Date of<br>completion<br>of deliver as<br>per<br>contract | Date of actual completion of delivery | Remarks<br>indicating reasons<br>for late delivery, if<br>any | Has the equipment been installed/working satisfactory? (Attach a certificate from the purchaser / Consignee) | Name of Contact<br>person along with<br>Telephone No.,<br>FAX No. and<br>e-mail address |
|---|-----------------------|---|----------------------|---|---------------------------------------|---|--|---|
|   |                       |   |                      |   |                                       |   |  |   |

| Signature and Seal of the manufacturer/Bidder |   |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|
| Place   | : |  |  |  |  |  |  |  |  |  |
| Date  | : |  |  |  |  |  |  |  |  |  |

Name of the Firm \_\_\_\_\_

# **DEVIATION STATEMENT FORM**

# PART –I The following are the particulars of deviations from the requirements of the tender specifications:

| CLAUSE | DEVIATION | REMARKS<br>(INCLUDING<br>JUSTIFICATION) |
|--------|-----------|---|
|        |           |   |
|        |           |   |
|        |           |   |
|        |           |   |
|        |           |   |
|        |           |   |
|        |           |   |

The system configuration/technical specifications furnished in the tender document shall prevail over those of any other document forming a part of our bid, except only to the extent of deviations furnished in this statement.

| Place: |                           |
|--------|---------------------------|
| Date:  |                           |
|        | Signature and seal of the |
| NOTE:  | Manufacturer/Bidder       |

Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

# <u>PART - II</u> (<u>Refer Clause 1.25 of Tender Document</u>)

| Sr.No. | TENDER REQUIREMENT  | COMPLIANCE                     | Document<br>Submitted |  |  |
|--------|---|--------------------------------|-----------------------|--|--|
| 1      | Bid is Signed   | Yes / No                       | Yes / NA              |  |  |
| 2      | This is to certify that we are eligible to bid for this tender as per clause No.1.1 (As per Chapter 8 Annexure-K)               | Yes / No                       | Yes / NA              |  |  |
| 3      | Bid Validity (180 days after the date of Bid opening)   | Yes / No<br>Bid valid up<br>to | Yes / NA              |  |  |
| 4      | Warranty: As per Clause 4.5 (i) of Chapter-4- from Installation & Commissioning and date of acceptance                          | Yes / No                       | Yes / NA              |  |  |
| 5      | Agree to submit Performance Security 10% of PO Value as per Clause 2.12.1   | Yes / No                       | Yes / NA              |  |  |
| 6      | Bidder Information Form enclosed as per Chapter 8: Annexure -A  | Yes / No                       | Yes / NA              |  |  |
| 7      | Manufacturers Authorisation Form (MAF) (If Applicable) Chapter 8, Annexure-B  | Yes / No                       | Yes / NA              |  |  |
| 8      | Certification of non-black listing (Self Certification) as specified in Chapter 5, (Sr.No.3 )& (Chapter 8 Annexure-L)           | Yes / No                       | Yes / NA              |  |  |
| 9      | Performance Statement Form enclosed as per Annexure - D of Chapter 8 with reference to Chapter 5 - 4(a) & 4(b)                  | Yes / No                       | Yes / NA              |  |  |
| 10     | Service Support details enclosed as per Annexure - F of Chapter 8 with reference to Chapter 5 - 4(c) & 4(d)                     | Yes / No                       | Yes / NA              |  |  |
| 11     | Integrity Pact as per Annexure – P of Chapter 8   | Yes/ No                        | Yes /NA               |  |  |
| 12     | Copy of Firm's / Company's Permanent Account No. (PAN) issued by Income Tax Department, Govt. of India.                         | Yes/No.                        | Yes/NA                |  |  |
| 13     | Copy of Firm's / Company's Goods & Service Tax (GST) Registration issued by GST Department / Authority of the respective state. | Yes/No.                        | Yes/NA                |  |  |

The Bidder should **submit other documents** such as fulfilment of financial qualification criteria (MIRA Inform Report), Schedule of Requirement (Chapter-3) and various forms as specified in Chapter-8.

# **SERVICE SUPPORT DETAIL FORM**

| Sr.<br>No. | List of similar type of equipment's serviced in the past 3 years | Address, Telephone<br>Nos., Fax No. and<br>e-mail address of the<br>buyer | Nature of training<br>Imparted/ service<br>provided | Name and address of service provider |
|------------|--|---|---|--------------------------------------|
|            |  |   |   |                                      |
|            |  |   |   |                                      |
|            |  |   |   |                                      |
|            |  |   |   |                                      |
|            |  |   |   |                                      |
|            |  |   |   |                                      |
|            |  |   |   |                                      |

| Signature and Seal of the manufacturer/Bidder |
|---|
|   |
|   |
| Place:  |
| Date:   |

# **Bid Form**

| [The | e Bidder sl | nall fill i | n this  | Form in  | n accordan  | ce wit | h the | instructions | indicated | No | alterations | to | its | format |
|------|-------------|-------------|---------|----------|-------------|--------|-------|--------------|-----------|----|-------------|----|-----|--------|
| sh   | all be pern | nitted ar   | nd no s | substitu | tions shall | be acc | epte  | d.]          |           |    |             |    |     |        |

| Date   | : [Insert date (as day, month and year) of Bid Submission]  |  |  |  |  |  |  |
|--------|---|--|--|--|--|--|--|
| Tend   | er No. :  |  |  |  |  |  |  |
| То     | To : Director, IITM, Pune   |  |  |  |  |  |  |
| We, t  | he undersigned, declare that:   |  |  |  |  |  |  |
| (a)    | We have examined and have no reservations to the Bidding Documents, Annexure thereto including Addenda No.: [insert the number and issuing date of each Addenda]                                  |  |  |  |  |  |  |
| (b)    | We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery   |  |  |  |  |  |  |
|        | Schedule specified in the Schedule of Requirements the following Goods and Related Services   |  |  |  |  |  |  |
| (c)    | [insert a brief description of the Goods and Related Services]as specified in Chapter 4  The total price of our Bid, excluding any discounts offered in item (d) below, is: [insert the total bid |  |  |  |  |  |  |
| (0)    | price in words and figures, indicating the various amounts and the respective currencies]   |  |  |  |  |  |  |
| (d)    | The discounts offered and the methodologies for their application are:  |  |  |  |  |  |  |
| (4)    | <b>Discounts.</b> If our bid is accepted, the following discounts shall apply. <b>[Specify in detail each</b>   |  |  |  |  |  |  |
|        | discount offered and the specific item of the Schedule of Requirements to which it applies.]  |  |  |  |  |  |  |
| (e)    | Our bid shall be valid for the period of time specified in ITB Clause 1.16, from the date fixed for the   |  |  |  |  |  |  |
|        | bid submission due date in accordance with ITB Clause 1.19 and it shall remain binding upon us  |  |  |  |  |  |  |
|        | and may be accepted at any time before the expiration of that period  |  |  |  |  |  |  |
| (f)    | If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause  |  |  |  |  |  |  |
| (6)    | 1.41 and GCC Clause 2.12 for the due performance of the Contract  The following commissions, gratuities, or fees have been paid or are to be paid with respect to the                             |  |  |  |  |  |  |
| (g)    | 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 Recipient Address Reason Amount  |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
| (If no | ne has been paid or is to be paid, indicate "none.")  |  |  |  |  |  |  |
| (h)    | 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.  |  |  |  |  |  |  |
| (i)    | We understand that you are not bound to accept the lowest evaluated bid or any other bid that you   |  |  |  |  |  |  |
|        | may receive.  |  |  |  |  |  |  |
|        | ed : [insert signature of person whose name and capacity are shown] e capacity of [insert legal capacity of person signing the Bid Submission Form]   |  |  |  |  |  |  |
| Name   | e : [insert complete name of person signing the Bid Submission Form]  |  |  |  |  |  |  |
|        | authorized to sign the bid for and on behalf of: [insert complete name of Bidder] d on day of,, [insert date of signing]  |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |
|        |   |  |  |  |  |  |  |

# **PERFORMANCE SECURITY FORM**

#### MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

| WHEREAS  (name and address of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contract no datedto supply (description of goods and services) (herein after called "the contract").  |
|---|
| AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;  |
| AND WHEREAS we have agreed to give the supplier such a bank guarantee;  |
| NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of   |
| We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.   |
| We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification. |
| This guarantee shall be valid until the day of, 20  |
| (Signature of the authorized officer of the Bank)   |
| Name and designation of the officer   |
| Seal, name & address of the Bank and address of the Branch  |
| Note: Whenever the hidder chooses to submit the Performance Security in the form of Bank Guarantee  |

Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

|       |          | Acceptance co   | <u>ertificate fo</u> | <u>rm</u>                                |
|-------|----------|---|----------------------|--|
| No.   |          |   |                      | Dated:                                   |
| M/s.  | _        |   |                      |  |
|       | -        |   |                      |  |
|       |          | Sub: Certificate of con   | nmissioning          | of equipment                             |
| 01.   | wit      | is is to certify that the equipment as detailed the all the standard and special accessories stalled and commissioned.                    |                      |  |
| (a)   | Co<br>Da | ntract No.<br>te:   |                      |  |
| (b)   | _        | scription of the equipment  |                      |  |
| (c)   |          | me of the consignee   |                      |  |
| (d)   | Sc       | heduled date of delivery of the consignment to<br>boratory / Institutes   | the                  |  |
| (e)   | Ac       | tual date of receipt of consignment by the Lab  | oratory /            |  |
| (f)   |          | heduled date for completion of tallation/commissioning  |                      |  |
| (g)   |          | tual date of completion of installation/comm  | ssioning             |  |
| (h)   |          | nalty for late delivery (at Laboratory / Institut   |                      |  |
| (i)   | Pe<br>Rs | nalty for late installation (at Laboratory $/$ Insti  | tutes level          |  |
| 02    |          | Details of accessories/items not yet supplied   | and recoverie        | es to be made on that account:           |
| Sr. I | No.      | Description   |                      | Amount to be recovered                   |
| 03    | C        | The acceptance test has been done to our enticontractual obligations satisfactorily  OR The supplier has failed to fulfil his contractual |                      |  |
| Sr. N |          | Failure   | T                    | Amount to be recovered                   |
| (a    |          |   |                      |  |
| (b    | )        |   |                      |  |
| (C    | )        |   |                      |  |
|       |          | unt of recovery on account of failure of th at para03.  | e supplier t         | o meet his contractual obligations is as |
| For S | upp      | lier For  | Purchaser            |  |
| Signa |          |   | ature                |  |
| Name  |          | Nan   |                      |  |
| Desig | gnati    |   | gnation              |  |
| Name  | e of     | the firm IND  | IAN INSTITU          | UTE OF TROPICAL METEOROLOGY              |
| Date  |          | Dat   | <b>;</b>             |  |

# **INDEMNITY BOND**

| No. ———   | Date:  |
|---|--|
| 1) Amalgamation/Acquisition   |  |
| other firm during this contract period, I Company are liable to execute, fulfill common / M/s. — a indemnify itself to the Director, INDIAN IN obligations as per the terms of the IITM Common dated — and INDIAN INSTITUTE | roposes for amalgamation, acquisition or sale of its business to any M/s.————————————————————————————————————  |
| 2) JointVenture, Consortium or Association  | on .   |
| to the IITM for the fulfillment of the proleader with authority to bind the join  | um, or association, all the parties shall be jointly and severally liable ovisions of the Contract and shall designate one party to act as an venture, consortium, or association. The composition or the lum, or association shall not be altered without the prior consent of  |
| 3) Patent Indemnity   |  |
| harmless from and against any and all su<br>damages, costs, and expenses of any na<br>as a result of any infringement or alle<br>trademark, copyright, or other intellectual  | pliance and indemnify and hold IITM and its employees and officers uits, actions or administrative proceedings, claims, demands, losses, ture, including attorney's fees and expenses, which IITM may suffer ged infringement of any patent, utility model, registered design, all property right registered or otherwise existing at the date of the nof the Goods by the Supplier or the use of the Goods in India; and a produced by the Goods. |
| For M/s. ———  | For M/s. ———   |
| Principal Supplier.   | Indian Agent.  |

# **ANNEXURE-K**

# **Eligibility Certificate**

| This is to certify that we are not associated, or ha with a firm or any of its affiliates which have been engage for the preparation of the design, specifications, and other goods to be purchased under this Invitation of Bids / Tendon | r documents to be used for the procurement of the |
|--|---|
|  | Authorised Signatory                              |
|  | Name:   |
|  | Designation:                                      |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  | ANNEXURE-L  |
| Non-Black listin   | ng Self Certificate                               |
| This is to certify that M/s Government Department / organization in last 3 years.  | has not been blacklisted by any Central / State   |
|  |   |
|  |   |
|  | Authorised Signatory                              |
|  | Name:   |
|  | Designation:                                      |

| <b>.</b> . |    |    |   | _ |   |
|------------|----|----|---|---|---|
|            | nn | er | N | ^ | • |
|            |    |    |   |   |   |

Annexure-M

#### WARRANTY

We warrant that everything to be supplied by us hereunder shall be brand new, free from all defects/faults in material and workmanship. It shall be of the highest grade and quality and consistent with the established and generally accepted standards for material of the type ordered, shall be in full conformity with the specification, drawings or samples, if any, and shall operate properly. We shall be fully responsible for its efficient operation. This warranty shall survive inspection of and payment for, and acceptance of the goods, but shall expire (except in respect of complaints of which the supplier has been notified prior to such date) **36 months** after their successful installation and acceptance by the purchaser.

The obligations under the Warranty expressed above shall include all costs relating to labour, spares, maintenance (preventive and unscheduled), and transport charges from site to manufacturer's works and back and for repair/adjustment or replacement at site of any part of the equipment which under normal and proper use and maintenance prove defective in design, material or workmanship or fails to confirm to the specifications if promptly given by the purchaser to the supplier.

| Witness   |              |
|-----------|--------------|
| Signature | Company Seal |
|           |              |
| Name :    |              |
| Address : |              |
| Date :    |              |

Tender No. :

Annexure - N

# Undertaking

| correct and nothing has been concealed or t | here in and as per the document submitted is true and campered with. We have gone through all the conditions for furnishing false information / documents. |
|---|--|
| Dated this day of                           | 2017   |
|   |  |
|   |  |
| Signature                                   |  |
| (Company Seal)                              |  |
|   |  |
| In the capacity of                          |  |
| Duly authorized to sign hids for and on hel | half of:   |

Annexure - O

#### **Format of Power-of-Attorney**

#### **POWER OF ATTORNEY**

(On Stamp Paper of relevant value)

Know all men by these presents, we (name of the company and address of the registered office) do hereby appoint and authorize Mr. (full name and residential address) who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our proposal for contactless smart card in response to the tenders invited by the Director, IITM, MoES including signing and submission of all documents and providing information/responses to Director, IITM, MoES in all matters in connection with our Bid.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

| Dated this day of                         | _2017 |
|---|-------|
| For                                       |       |
| (Signature)                               |       |
| (Name, Designation and Address)           |       |
| Accepted                                  |       |
| (Signature)                               |       |
| (Name, Title and Address of the Attorney) |       |
| Date:                                     |       |

#### Instructions for Online Bid Submission on E-Wizard Web Portal:

The bidders are required to submit soft copies of their bids electronically on the e-tender Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the e-Procurement Portal <a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a>, prepare their bids in accordance with the requirements and submitting their bids online on the e-Procurement Portal.

More information useful for submitting online bids on the e-Procurement Portal may be obtained at: https://moes.euniwizarde.com

#### REGISTRATION

- Bidders are required to enroll on the e-Procurement Portal (<a href="https://moes.euniwizarde.com">https://moes.euniwizarde.com</a>) with clicking on the link "Online bidder Registration" on the e-tender Portal by paying the Registration fee of Rs. 2360/-per year charge.
- 2. As part of the enrolment process, the bidders will be required to choose a unique user name 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 with the bidder.
- 4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption 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 DSC"s 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 / e-Token.
- 7. The scanned copies of all original documents should be uploaded on portal.
- 8. For any Query contact to our helpdesk Number 011-49606060, Email: helpdeskeuniwizarde@gmail.com, Mr. Sunil 8448288990.

#### **SEARCHING FOR TENDER DOCUMENTS**

- 9. There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Item/work id, Title, Date, etc
- 10. Once the bidders have selected the tenders they are interested in, the bidder can pay the processing fee of Rs. .....+ 18 % GST-/ (NOT REFUNDABLE) by net-banking / Debit / Credit card and then download the required documents / tender schedules, Bid documents etc. Once both tender fees are paid, it will be moved to the respective "requested" Tab. This would enable the e-tender Portal to intimate the bidders through e-mail in case there is any corrigendum issued to the tender document.

#### PREPARATION OF BIDS

- 11. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 12. 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.
- 13. 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 /JPEG formats. Bid Original documents may be scanned with 100 dpi with Colored option which helps in reducing size of the scanned document.
- 14. 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 Documents" available to them to upload such documents.
- 15. These documents may be directly submitted from the "My Documents" 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.

#### SUBMISSION OF BIDS

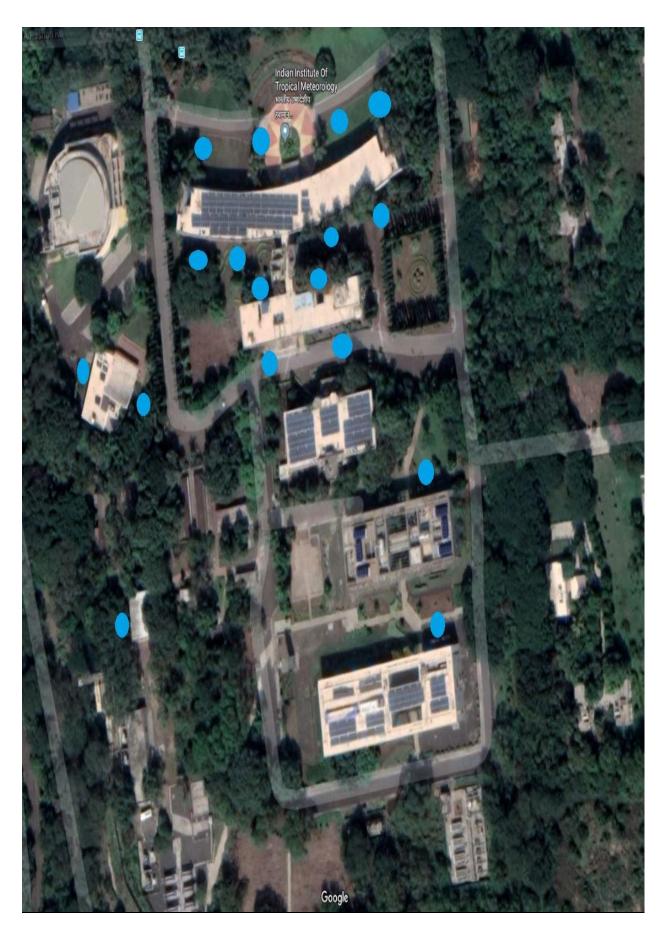
- 16. Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 17. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 18. Bidder has to select the payment option as "DD" to pay the EMD as applicable and enter details of the instrument.
- 19. Bidder should prepare the EMD as per the instructions specified in the tender document & submit EMD fee manually at department end. The original bid should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 20. \*Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. 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.
- 21. 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.
- 22. 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. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 23. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 24. Upon the successful and timely submission of bid click "Complete" (i.e. after Clicking "Submit" in the portal), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details.
- 25. The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### **ASSISTANCE TO BIDDERS**

1. For any Query contact to our helpdesk Number 011-49606060, Email <a href="helpdeskeuniwizarde@gmail.com">helpdeskeuniwizarde@gmail.com</a>, Mr. Shubhankar- +91 8076208996; Mr Awesh - 91 9205898224

#### **Annexure-I**

# **Proposed IT Network layout** BLLSP3-48 PORT BLLSP1-48PORT BLLSP1-48PORT ARYABHATTA-48PORT GUEST HOUSE-48PORT ANANTKRISHNAN HOSTEL-24PORT AUDITORIUM-24PORT C&H ACCOUNT 3-48PORT C&H ACCOUNT 1-48PORT C&H ACCOUNT 1-48PORT 18-OT2-24PORT IITM CORE SWITCH GA2-24PORT CORE EXTN.-48PORT CORE EXTN.-48PORT DESK-48PORT DESK2-48PORT CANTEEN-24PORT MAIN GATE-24PORT 10G SFP LINK SM DIRECTOR BUNGLOW-24PORT 10G SFP LINK MM 40 GB LINK MM CCCR3-48PORT 40 GB LINK SM FIBER TO BE LAID NO. OF 24 PORT ACCESS SWITCH-9 NO. OF 48 PORT ACCESS SWITCH-49 STOCK SWITCHES- 24PORT-2 48PORT-3 Proposed IITM Network



|        | Proposed CAMERA LOCATIONS |          |  |  |  |  |
|--------|---------------------------|----------|--|--|--|--|
| Sr.No. | Camera Locations          | Quantity | Description  |  |  |  |
| 1      | Security Main Gate        | 03 Nos.  | 1- Towards Meghdoot,1- Towards<br>Main Gate,1- ON Main building<br>entrance road.  |  |  |  |
| 2      | Material Gate             | 01 Nos.  | 1- Towards Material Gate.  |  |  |  |
| 3      | Workshop                  | 01 Nos.  | Near workshop Towards canteen  |  |  |  |
| 4      | Substation                | 01 Nos.  | Near substaion   |  |  |  |
| 5      | DB Gate                   | 02 Nos.  | 1- Towards Campus,1- Towards<br>Colony Road  |  |  |  |
| 6      | Colony Gate               | 02 Nos.  | 1- Towards Colony Gate,1-<br>Towards Shishir.  |  |  |  |
| 7      | HPC building              | 01 Nos.  | Towards HPC Builbing Entrance  |  |  |  |
| 8      | Training Hall             | 01 Nos.  | Towards Training Hall Entrance   |  |  |  |
| 9      | CCCR Building             | 01 Nos.  | Towards CCCR Builbing Entrance   |  |  |  |
| 10     | Guest House               | 02 Nos.  | 1- Reception Entrance,1- Dining Entrance.  |  |  |  |
| 11     | LIP Building              | 01 Nos.  | Towards LIP Builbing Entrance  |  |  |  |
| 12     | Meghdoot Inside           | 02 Nos.  | 1- Reception ,1- Passage.  |  |  |  |
| 13     | Main Building Phase-II    | 07 Nos.  | 2- At main Reception, 1- CGMD<br>Entrance,1- Varahamihir<br>Entrance,1- First Floor East wing,1-<br>Second Floor East wing,1-Ground<br>Floor Near SAFAR LAB. |  |  |  |
| 14     | Main Building Phase-I     | 07 Nos.  | 1- GA Entrance,1-Towards GA<br>Section, 1-CCRL Lab, 2- First Floor<br>East & West wing, 2- Second Floor<br>East & West wing                                  |  |  |  |
| 15     | Two Wheeler Parking       | 01 Nos.  | Towards Parking.   |  |  |  |
| 16     | Four Wheeler Parking      | 01 Nos.  | Towards Parking.   |  |  |  |
|        | TOTAL                     | 34 Nos.  |  |  |  |  |

|                         |                      | List of Buyback | Item                                 | S                    |                          |   |                    |                    |                 |
|-------------------------|----------------------|-----------------|--------------------------------------|----------------------|--------------------------|---|--------------------|--------------------|-----------------|
| Department              | Current Switches     | Serial Number   | 1<br>G<br>E<br>S<br>F<br>P<br>S<br>M | 1G<br>E<br>SFP<br>MM | 10GE<br>SFP+<br>X2<br>SM | 10GE<br>SFP+<br>X2<br>MM                      | 10GE<br>SFP+<br>SM | 10GE<br>SFP+<br>MM | Buy<br>bac<br>k |
|                         |                      |                 |                                      |                      |                          |   |                    |                    |                 |
| CCRL                    | WS-C2960S-48FPD-L    | F0C1502Y1D4     |                                      | 1                    |                          |   |                    | 1                  | YES             |
| I&OT                    | WS-C2960S-24PS-L     | F0C1508Y62F     |                                      | 3                    |                          |   |                    |                    | YES             |
| GA1                     | WS-C2960S-24PS-L     | F0C1508Y5ZX     |                                      | 3                    |                          |   |                    |                    | YES             |
| ENVIS                   | WS-C2960S-48FPD-L    | F0C1502Y1CX     |                                      | 1                    |                          |   |                    | 1                  | YES             |
|                         | WS-C2960-24TT-L      | FOC1134W0PW     |                                      |                      |                          |   |                    | _                  | YES             |
| PM&A                    | WS-C2960S-48FPD-L    | F0C1737Z08U     |                                      | 1                    |                          |   |                    | 1                  | YES             |
| PM&A3                   | WS-C2960S-48FPD-L    | FOC1606X3TD     |                                      |                      |                          |   |                    |                    | YES             |
| PM&A2_300lab            | WS-C2960-24TT-L      | F0C1312Z04B     |                                      |                      |                          |   |                    |                    | YES             |
| CGMD                    | WS-C2960S-48FPD-L    | F0C1728Z3BQ     |                                      | 1                    |                          |   |                    | 1                  | YES             |
|                         | WS-C2960S-48FPS-L    | F0C1624W19Z     |                                      |                      |                          |   |                    |                    |                 |
| ADMIN                   | WS-C2960S-48FPD-L    | FOC1502Y1GA     |                                      | 1                    |                          |   |                    | 1                  | YES             |
|                         | WS-C2960S-24PS-L     | F0C1508Y60H     |                                      |                      |                          |   |                    |                    | YES             |
| FRD                     | WS-C2960S-48FPD-L    | F0C1502Y1D9     |                                      | 1                    |                          |   |                    | 1                  | YES             |
|                         | WS-C2960S-24PS-L     | F0C1508Y5Z4     |                                      |                      |                          |   |                    |                    | YES             |
| BLLSP                   | WS-C2960S-48FPD-L    | F0C1502Y1F5     |                                      | 2                    |                          |   |                    |                    | YES             |
|                         | WS-C2960-24TT-L      | F0C1134X0V3     |                                      |                      |                          |   |                    |                    | YES             |
| C&H_Account             | WS-C2960S-48FPD-L    | FOC1502Y1FX     |                                      | 1                    |                          |   |                    | 1                  | YES             |
|                         | WS-C2960S-24PS-L     | F0C1508Y60A     |                                      |                      |                          |   |                    |                    | YES             |
| TSD                     | WS-C2960S-48FPD-L    | F0C1502W1F9     |                                      | 1                    |                          |   |                    | 1                  | YES             |
|                         | WS-C2960S-24PS-L     | F0C1508Y600     |                                      |                      |                          |   |                    |                    | YES             |
| LIP                     | WS-C2960G-24PS-L     | F0C1530X67X     |                                      | 2                    |                          |   |                    |                    | YES             |
| Aryabhatta              | WS-C2960S-24PS-L     | F0C1508Y60N     |                                      | 2                    |                          |   |                    |                    | YES             |
| DESK                    | WS-C2960S-48FPD-L    | F0C1502W198     |                                      | 1                    |                          |   |                    | 1                  | YES             |
| Auditorium              | WS-C2960S-48FPS-L    | F0C1837W7HP     |                                      | 1                    |                          |   |                    |                    | YES             |
| Guest House             | WS-C2960S-24PS-L     | F0C1552X0H1     |                                      | 2                    |                          |   |                    |                    | YES             |
| Anantkrushnan<br>Hostel | WS-C2960S-24PS-L     | FCW1945A2QC     | 2                                    |                      |                          |   |                    |                    | YES             |
| NOC                     | WS-C3750G-24TS-S     | FD01249Z0BW     | -                                    |                      |                          |   |                    |                    | YES             |
| 1100                    | WS-C3750G-24TS-S     | FD01225X2EX     |                                      |                      |                          |   |                    |                    | +               |
| HPC Core                | Nexus5548            | SSI16120402     |                                      |                      |                          |   | 2                  | 6                  | YES             |
| 111 0 0010              | WS-C2960S-48FPD-L    | F0C1625Z0CH     |                                      |                      |                          |   | _                  | 1                  | YES             |
|                         | WS-C2960S-48FPS-L    | F0C1624W17G     |                                      |                      |                          |   |                    | _                  | YES             |
| Stack Switches          | WS-C2960S-48FPS-L    | F0C1624W1AK     |                                      |                      |                          |   |                    |                    | YES             |
|                         | WS-C2960S-48FPD-L    | F0C1625Z0CE     |                                      |                      |                          |   |                    | 1                  | YES             |
| CCCR-Core               | WS-C4506-E           | F0X1347H6F5     |                                      |                      |                          |   |                    | _                  | 1.20            |
| OOON OOIC               | Supervisor 6L-E 10GE | 10/1204711010   |                                      |                      |                          |   |                    |                    | +               |
|                         | (X2). Two 10GE X2    |                 |                                      |                      |                          |   |                    |                    |                 |
|                         | ports                |                 |                                      |                      |                          | 2   |                    |                    | YES             |
|                         | 4 * 48 Port 1GE      |                 |                                      |                      |                          | _   |                    |                    | +               |
|                         | RJ45 Line Card       |                 |                                      |                      |                          |   |                    |                    | YES             |
|                         | 1 * 12 Port 1GE SFP  |                 |                                      |                      |                          |   |                    |                    | +               |
|                         | Line Card            |                 |                                      |                      |                          |   |                    |                    | YES             |
|                         | WS-C2960S-48FPS-L    | FOC1615Z4QV     |                                      |                      |                          |   |                    |                    | YES             |
| Stack Switches          | WS-C2960S-48FPS-L    | F0C1624W19N     |                                      |                      |                          |   |                    |                    | YES             |
| _ 13.3.1 • 11.101100    | WS-C2960S-48FPS-L    | F0C1624X15M     |                                      |                      |                          |   |                    |                    | YES             |
| IITM-Core               | WS-C4506-E           | . COLOR IXLONI  |                                      |                      |                          |   |                    |                    | 1.5             |
| 3010                    | Supervisor 6L-E 10GE |                 |                                      |                      | <u> </u>                 |   | 1                  |                    | +               |
|                         | (X2). Two 10GE X2    |                 |                                      |                      |                          |   |                    |                    |                 |
|                         | ports                |                 |                                      |                      | 2                        |   |                    |                    | YES             |
|                         | 1 * 48 Port 1GE      |                 |                                      |                      | † <b>-</b>               |   | 1                  |                    | +               |
|                         | RJ45 Line Card       |                 |                                      |                      |                          |   |                    |                    | YES             |
|                         | 3 * 6 Port 10GE X2   |                 |                                      |                      |                          | 14  |                    |                    | YES             |
| _                       |                      | 1               | 1                                    | l                    | L                        | <u> ·                                    </u> | <u> </u>           | 1                  |                 |

|              | Line Card             |             |   |    |  |     |
|--------------|-----------------------|-------------|---|----|--|-----|
|              | 1 * 48 Port 1GE SFP   |             |   |    |  |     |
|              | Line Card             |             | 6 | 24 |  | YES |
| Wireless     |                       |             |   |    |  |     |
| Controller   | AIR-CT5508-K9         | FCW1623L0GQ |   |    |  | YES |
| Access Point | AIR-CAP2702I-D-K9     | FGL2133A4PN |   |    |  | YES |
|              | AIR-CAP2702I-D-K9     | FGL2133A4PS |   |    |  | YES |
|              | AIR-CAP2702I-D-K9     | FGL2133A4PX |   |    |  | YES |
|              | AIR-CAP2702I-N-K9     | FGL1847X9VM |   |    |  | YES |
|              | AIR-CAP2702I-N-K9     | FGL1837X7WM |   |    |  | YES |
|              | AIR-CAP2702I-N-K9     | FGL1837X7WR |   |    |  | YES |
|              | AIR-CAP2702I-N-K9     | FGL1837X1KN |   |    |  | YES |
|              | AIR-CAP2702I-N-K9     | FGL1837X1D0 |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38M |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38P |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38T |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38S |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38Q |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38N |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38U |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S38K |   |    |  | YES |
|              | AIR-CAP3502I-N-K9     | FGL1625S399 |   |    |  | YES |
|              | AIR-LAP1042N-N-K9     | FGL1448S5J2 |   |    |  | YES |
|              | AIR-LAP1042N-N-K9     | FGL1448S5J4 |   |    |  | YES |
|              | AIR-LAP1252G-A-K9     | FCW1406Z0L0 |   |    |  | YES |
|              | AIR-LAP1252G-A-K9     | FCW1406Z0L6 |   |    |  | YES |
|              | AIR-CAP1602I-N-K9     | FGL1836XB70 |   |    |  | YES |
|              | Security Surveillance |             |   |    |  | YES |
|              | Server Qty -01        |             |   |    |  |     |
|              | Indoor Ip Cameras     |             |   |    |  | YES |
|              | Qty -06               |             |   |    |  |     |
|              | Outdoor IP Camera     |             |   |    |  | YES |
|              | Qty-01                |             |   |    |  |     |
|              | PTZ Camera Qty-01     |             |   |    |  | YES |

Sd/ -

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