

**WORK: “Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years.”**

**TENDER NOTICE No.: AMD/EDISAC/LAN-UPGRADE/2026 date 13/04/2026**

**Last Date of Submission: 08/06/2026**

**Tender opening: 18/06/2026**

**ATOMIC MINERALS DIRECTORATE FOR EXPLORATION  
AND RESEARCH, HYDERABAD - 500016**

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Section I: Notice Inviting Tender (NIT)

**Government of India  
Department of Atomic Energy  
Atomic Minerals Directorate for Exploration & Research  
Electronic Data and Information Security Audit Cell  
NOTICE INVITING e-TENDER**

**Tender No. AMD/EDISAC/LAN-UPGRADE/2026**

**Date: 13/04/2026**

## **1. INTRODUCTION**

Director, Atomic Minerals Directorate for Exploration & Research (AMD), DAE, AMD Complex, 1-10-153 to 156, Begumpet, Hyderabad 500016 on behalf of the President of India invites online item rate tender (in two bids) from eligible reputed and experienced contractors having experience in similar works and enrollment in CPP Portal.

Only Class-I or Class-II Local Supplier as defined in Letter no. P45021/2/2017-PP (BE-II) dated 16.09.2020 issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, Government of India (GoI) or as amended from time to time and until the date of submission of the bids by the bidders are eligible to participate in this tender.

### **1.4 Description of work**

“Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years.”

### **1.5 Estimated Cost**

The estimated cost of the work is approximately Rs. 6,10,54,700/- (Rupees Six Crore Ten Lakhs Fifty-Four Thousand Seven Hundred only) (Inclusive of GST).

The Tender should be addressed to the Director, AMD, DAE, AMD Complex, 1-10-153 to 156, Begumpet, Hyderabad 500016, and should be submitted online on or before the date and time of Bid opening date as mentioned in critical date sheet.

**No manual bids will be accepted. All tenders (both Technical and Financial) should be submitted in the CPP portal** [<https://eprocure.gov.in/epublish/app>].

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

## **2. DETAILED SCOPE OF WORK**

Detailed Scope of work shall be briefly but not limited to the scope of work as mentioned in Section VII to this Detailed tender document. The scope of work shall include all specifications, terms and conditions, schedule of rates etc. as included in the bidding document and its subsequent Amendment, if any.

### 3. TIME SCHEDULE

The time schedule for completion of work in all respects shall be 6 (six) calendar months to be reckoned from the 15th day after the date of award of work order.

### 4. SALIENT FEATURES OF BIDDING DOCUMENT

|    |                                                 |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----|-------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Tender No.                                      | : | AMD/EDISAC/LAN-UPGRADE/2026<br>Date: 13/04/2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2. | Work Description                                |   | Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3. | Estimated cost put to tender<br>(Including GST) | : | <b>Rs. 6,10,54,700/-</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. | EMD                                             | : | <p>Earnest Money Deposit (EMD) of <b>Rs. 12,21,094/-</b> to be submitted in the form of Insurance Surety Bond, Deposit at Call Receipt or Demand Draft/ Bankers Cheque or Fixed Deposit Receipt drawn on any Nationalized/Scheduled bank in favour of Pay &amp; Accounts Officer, AMD, Hyderabad payable at Secunderabad/Hyderabad.</p> <p style="text-align: center;">or</p> <p>The bidders may submit the EMD as follows:</p> <p>(i) 50% of earnest money or Rs. 20 lakh, whichever is less, will have to be deposited in the shape prescribed above</p> <p style="text-align: center;">and</p> <p>(ii) Balance amount of Earnest money can be accepted in the form of Bank guarantee issued by a scheduled bank as per enclosed prescribed format. Cash and Cheque for Earnest Money Deposit will not be accepted.</p> <p>The Bank Guarantee shall be valid for 180 days from the date of online submission of Tender.</p> <p>Note:</p> <p>The bidder shall upload and submit the scanned copy of Earnest Money Deposit (E.M.D). Without the EMD, the bid will be summarily rejected. MSME relaxations/ exemptions are not applicable as this</p> |

|           |                        |   |                                                                                                 |
|-----------|------------------------|---|-------------------------------------------------------------------------------------------------|
|           |                        |   | work comes under works contract.                                                                |
| <b>5.</b> | Completion period      | : | <b>06 Months</b>                                                                                |
| <b>6.</b> | Fee of Tender Document | : | Nil                                                                                             |
| <b>7.</b> | Tender Processing Fee  | : | Nil                                                                                             |
| <b>8.</b> | Security Deposit       | : | 2.5% of tendered value shall be recovered from each running account bill as well as final bill. |
| <b>9.</b> | Performance guarantee  | : | 5% of tendered value                                                                            |

#### 4.1 Various dates for process of the tender:

|          |                                                                 |                                                                                                                                                                                    |
|----------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | Dates of availability of Tender Documents for download          | <b>From 15/04/2026 (11:00 hrs.) to 08/06/2026 (15:00 hrs) website on &lt;<a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>&gt;</b>           |
| <b>2</b> | Site Visit                                                      | <b>From 15/04/2026 (11:00 hrs.) to 01/06/2026 (15:00 hrs)</b>                                                                                                                      |
| <b>3</b> | Uploading of Pre-bid queries                                    | <b>From 24/04/2026 (11:00 Hrs) to 28/04/2026 (17:00 Hrs) on CPPP website:<br/>&lt;<a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>&gt;</b>  |
| <b>4</b> | Pre-Bid Meeting                                                 | <b>04/05/2026 (10:00 Hrs)</b>                                                                                                                                                      |
| <b>5</b> | Uploading of Pre-Bid clarifications (if any)                    | <b>Pre-bid clarifications will be uploaded on website:<br/>&lt;<a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>&gt; on 08/05/2026</b>       |
| <b>6</b> | Date and time of online submission of tenders                   | <b>From 05/05/2026 (11:00 Hrs) to 08/06/2026 (15:00 hrs.) on CPPP website:<br/>&lt;<a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>&gt;</b> |
| <b>7</b> | Last date for submission of original DD/FDR/BG etc. towards EMD | <b>On or before 15/06/2026 (15:00 hrs.) in the Office of Head EDISAC, 1-10-153 to 156, AMD Complex, Begumpet - 500016, Hyderabad (Contact No.: 040-27776272)</b>                   |
| <b>8</b> | Date and time of online opening of Technical Bid.               | <b>18/06/2026 (15:00 hrs.) in the Office of Head EDISAC, AMD Hyderabad</b>                                                                                                         |

|                                                                                                                                                                                                                                          |                                                        |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>9</b>                                                                                                                                                                                                                                 | Bid Validity                                           | The Bid shall be valid for a period of 180 days from the date of opening (extended due date in case of time extension) of Part-I |
| <b>10</b>                                                                                                                                                                                                                                | Date of opening of Financial Bids of qualified bidders | Will be notified at a later date                                                                                                 |
| <b>Note: Director, AMD</b> reserves the right to accept or reject any or whole tender(s) in full or in part, without assigning any reason thereof. Tenders with any condition including conditional rebate shall be rejected forth with. |                                                        |                                                                                                                                  |

## 5. The Tender

**5.1.** Bidders must read the complete ‘Tender Document’ for details before submission of their Bids.

**5.2.** Availability of the Tender Document: -The Tender Document shall be published on the CPP Portal. It shall be available for download after the date and time of the start of availability till the deadline for availability as mentioned on CPP Portal.

## 6. Eligibility Criteria for Participation in this Tender

Subject to provisions in the Tender Document, participation in this Tender Process is open to all bidders who fulfill the ‘Eligibility’ and ‘Qualification criteria’. Bidder should meet the following eligibility criteria as on the date of bid submission and should continue to meet these till the award of the contract.

### 6.1 Initial Criteria for Eligibility for Pre-Qualification:

- 6.1.1 The bidder shall be compliant to the Public Procurement (Preference to Make in India), Order 2017 and amended order dated 16th September 2020 or any latest order issued from time to time by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry. Also, bidder must submit undertaking along with bid for local content of.....% offered in subject tender. In this regard, bidder shall also refer to the DPIIT’s website: <https://dpiit.gov.in/public-procurements>.
- 6.1.2 Only ‘Class-I local supplier’ & ‘Class-II local supplier’ as defined in Public Procurement (Preference to Make in India) Order 2017 as amended from time to time, are eligible to participate for subject tender. Class-I local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50% as defined in above mentioned order. Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has minimum local content of 20% but less than 50%, as defined in above mentioned order.
- 6.1.3 The works in this tender are not divisible and bid is evaluated & awarded based on whole tender of financial bid value on total price alone. Further, Class-I Local Supplier shall get purchase preference over Class-II local supplier as per Public Procurement Order 2017, amended up to date.

**6.2** The applicant who fulfils the following criteria shall be considered for participation. Bidder should be a registered firm in India.

**6.3** Joint Ventures and Consortium etc. shall not be accepted.

**6.4** The applicant should have satisfactorily completed the works as mentioned below during the last seven years ending previous day of last date of submission of tenders

**a. One similar completed work value not less than Rs. 4,88,43,760/- (80% of estimated cost put to tender)**

**‘OR’**

**b. Two similar completed works each value not less than Rs. 3,66,32,820/- (60% of estimated cost put to tender)**

**‘OR’**

**c. Three similar completed works each value not less than Rs. 2,44,21,880/- (40% of estimated cost put to tender)**

**FOR EXPERIENCE BASED ON COMPOSITE WORKS**

- i. In case applicant has executed composite works which includes the qualifying similar nature of works for a minimum value as stated in 6.4b & 6.4c, then value of such similar work meeting the qualification criteria out of the total value of composite works shall be considered for the purpose of pre-qualification.
- ii. For composite works, in the event the value of the qualifying work(s) cannot be ascertained from the work order/ completion certificate submitted by applicant, copy of Bill/Schedule of quantities, relevant pages of Contracts, copy of relevant pages of final bill certified by OWNER, highlighting the items for establishing requirement of Experience Criteria or written letter from their Owner specifying the nature of work with quantities and values can be submitted for pre-qualification.

Attested copies of experience certificates as proofs of evidence as stated in 6.4 above are to be uploaded and to be submitted.

**Important Notes:**

For the purpose of this clause, ‘**similar work**’ means “**Supply, Installation & Commissioning of IT infrastructure (such as Network switches/routers/servers).**”

The bidder should have satisfactorily completed certificate in similar works mentioned above.

**Authorized System Integrator:** The bidder shall be OEM or Authorized System Integrator of offered Network Switches. Tender Specific Authorization Form from OEM shall be submitted as proof.

- a) Copy of work order along with schedule of quantities and successful completion certificate shall be uploaded/ submitted for consideration of eligibility under similar works.

- b) Cost of work shall mean gross value of the completed work including the cost of materials supplied by the contractor, but excluding those supplied free of cost. This should be certified by authorized signatory of the firm/organization.
- c) The value of executed work will be brought to the current costing level by enhancing the actual value of work at simple rate of 7% per annum to be calculated from the date of completion to the last date of receipt of tender as mentioned in this document. The cost of materials supplied free of cost by the Client, shall be excluded in value of order.
- d) SSI/MSME/PSU (Central & State) are not exempted from submission of EMD. Purchase preference for SSI/MSME/PSU shall not be provided for this tender.

**6.5** At the time of submission of tender, the applicant shall have to furnish an affidavit as under:

"I/ We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of AMD, then I/We shall be debarred for tendering in AMD Contracts in future forever. Also, if such a violation comes to the notice of AMD before date start of the work, the Engineer-in-Charge shall be free to forfeit the entire amount of Performance Guarantee."

**6.6** The applicant should have had **average annual financial turnover (gross) of Rs. 2,44,21,880/- (which is 40% of tendered estimated cost)** during immediate last three consecutive financial years ending **31<sup>st</sup> March 2025**. This should be duly audited by a Chartered Accountant. Year in which no turnover is shown would also be considered as zero for working out the average. The turnover value related to similar work criteria only will be considered for technical bid qualifying criteria.

**6.7** The applicant should not have incurred any loss in more than two years during the last five consecutive immediate financial years ending **31<sup>st</sup> March 2025 duly certified** by the licensed Chartered Accountant.

**6.8** The applicant should have Solvency of **Rs. 2,44,21,880/-** certified by his bankers and not older than 1 year from the last date of submission of tenders. **The tenderer should upload the valid Solvency certificate** (as per Annexure - VII) **along with bid document without which tender will be rejected. No correspondence will be made for this.**

**6.9** The bidder should submit performance certificate for the similar works in the last seven years certified by authorized signatory of the firm/organization for which the work is carried out.

**6.10** The applicant should have sufficient number of Technical and Administrative employees for proper execution of the contract. The applicant should submit list of well qualified and experienced Engineers and Supervisors stating clearly how those would be deployed for execution of works.

**6.11** List of works in hand & List of similar works carried out by them for last seven years indicating; i) Agency for whom executed, ii) Value of work, iii) Completion time as stipulated and actual, or present position of the work.

**6.12** List of machinery, equipment, accessories & infrastructure facilities possessed by the agency to complete the work in time.

**6.13** The bidding capacity of the contractor applicable should be equal to or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the following formula:

$$\text{Bidding Capacity} = [A \times N \times 2] - B$$

Where,

**A**= Maximum Value of similar works executed in any one year during the last five years taking into account the completed as well as works in progress.

**N** = number of years prescribed for completion of work for which bids have been invited i.e 6 months.

**B**= Value of existing commitments and ongoing similar works to be completed during the period of completion of work for which bids have been invited.

The Auditor's (Registered Chartered Accountant) certificate to the information given by the bidder and bidding capacity of the bidder shall be uploaded and submitted.

Certificates of running works/Works in progress shall be uploaded and submitted.

**6.14 Submission of Bids:**

- a) Bids must be uploaded on CPP portal till the deadline for submission mentioned on CPP Portal. Bidder must comply with the conditions of the CPP Portal, including registration, compatible Digital Signature Certificate (DSC) etc. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling in the required information.
- b) Bidder must submit the bid complete in all respect; in the absence of which bid may be rejected.

**6.15 Bid Opening:**

Bids received shall be opened online at the specified date and time mentioned on CPP Portal.

**6.16 Bid Conditions:**

1. Certificates: (Scanned copy of original certificates to be uploaded)
  - a. **Registration certificate, if any**
  - b. **Performance Certificates / work completion certificates issued by the Organization**
  - c. **GST Registration certificate**
  - d. **PAN (Permanent Account Number) Registration**
  - e. **EPFO registration Certificate (If applicable)**
  - f. **ESIC registration certificate (If applicable)**
  - g. **OEM Certificate / OEM authorized dealership certificate for the BoQ items**
2. UNDERTAKING as under:-

I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in AMD / DAE in future forever. Also, if such a violation comes to the notice of

Department before date of start of work, the Officer-in-Charge shall be free to forfeit the entire amount of Performance Guarantee. **(Scanned copy of the undertaking duly signed & sealed on letter head of the bidder to be uploaded at the time of submission of bid).**

3. The agency is required to submit a declaration (Annexure-VI) confirming filing of Income tax return from immediate two preceding years failing which TDS/TCS shall be deducting at the higher rates as instructed under Section 206 AB of the Income Tax ACT 1961 or as modified from time to time.
4. The intending bidder must read the terms and conditions as per **“SECTION – 1: CONDITIONS AND CLAUSES OF CONTRACT – 2015”** carefully. **He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.**
5. **Department reserves the right of Non-consideration of Tender documents submitted by the agencies who are not fulfilling the NIT stipulations and / or having adverse report on the works carried out by them in the past.**
6. Information and Instructions for tenderers posted on website shall form part of tender document.
7. **Zero deviation basis:** Bidders are requested to submit their bids on Zero deviation basis in total compliance to the technical specification mentioned in the Tender Document without any deviation / stipulation / clarification / assumption. Accordingly, Bidder must submit format for “Compliance to Bid requirement” as per attached format ‘Annexure -X’, duly filled in along with Bid. Bidders taking deviations to the provisions of Tender Document shall be summarily rejected.
8. Certificates to be uploaded after clubbing as given below and to be scanned and uploaded online during submission of bid documents.
  - a. Scanned copy of EMD, Financial Turnover, Profit and Loss, Solvency, Bidding Capacity.
  - b. Scanned copies of completion certificates of works completed and work orders for works in hand.
  - c. Scanned copy of Registration, GST, PAN, ESI / any other standard health insurance scheme issued by the company to its employees and EPF / affidavit that the firm is exempted from EPF Act.
  - d. Scanned copy of bidder declaration and tender acceptance.
  - e. Duly filled Forms as mentioned below and checklist along with Technical Evaluation Sheet.
  - f. Scanned copy of other documents as per this tender.

The following are the forms to be uploaded related to the qualification criteria available. The data so filled will be verified with respect to the above documents uploaded.

- Turnover of contractor/Bidder for last three years
- Solvency certificate from Applicant’s Bankers
- Details of all works of similar class completed during the last seven years.
- Projects under execution or awarded
- Performance of the completed work
- General Data Details of technical & administrative personnel to be employed for

the work

9. **It is the responsibility of the tenderer to submit the EMD (hardcopy) duly sealed and signed in the Office of Head, EDISAC, 1-10-153 to 156, AMD Complex, Begumpet, Hyderabad (Contact No. – 040-27776267) on or before prescribed time & date of submission. Otherwise tender will be summarily rejected and no correspondence in this regard shall be made by AMD.**
10. **OBTAINING OF STANDARD DOCUMENTS:** In addition to the above, the prospective agencies shall be required to possess tender documents with them separately, which shall form part of Tender Documents for this work. In case the agencies already possess these standard documents with them, the same need not be downloaded/ purchased again.
11. The bid can only be submitted after uploading the mandatory scanned documents such as Demand Draft or Pay order or Banker's Cheque or Insurance Security Bond or Deposit at call Receipt or Fixed Deposit Receipts and Bank Guarantee of any Scheduled Bank towards EMD in favour of "Pay & Accounts Officer, AMD, Hyderabad" and other documents as specified.
12. Bidder should prepare the EMD as per the instructions specified in the tender document. The original 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. Non receipt due to postal / courier delays will be treated as non receipt of documents within specified time and **the bid will be rejected.**
13. On opening date, the bidder can login and see the bid opening process.
14. **Certificate of Financial Turn Over :** At the time of submission of bid, bidder may upload Undertaking / Certificate from Licensed Chartered Accountant mentioning Financial Turn Over of last 3 years or for the period as specified in the bid document.
15. **Price BID: Schedule of Price bid would appear in the form of BoQ xxxx.xls**
  - a. The Financial Proposal/Commercial bid / BoQ format is provided as **BoQ XXXX.xls** along with this tender document at <https://eprocure.gov.in/eprocure/app>. Bidders are advised to download this **BoQ XXXX.xls** as it is and quote their offer/rates in the permitted column and upload the same in the commercial bid. **Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business.**
  - b. Bidder must ensure to quote rate of each item. The column meant for quoting rate in figures appears in **SKY BLUE** color. While selecting any of the cells a warning appears to mandatorily fill all such cells with any value, including "0" (ZERO).
  - c. In the case of bids in two / three stage system and if it is desired to submit revised price bid then it shall be mandatory to submit revised price bid. If not submitted then the bid submitted earlier shall become invalid.
16. **Corrigendum/amendment:** The changes, if any, in the tender subsequent to uploading

by the department like extension of dates of tender, specifications or item descriptions or quantity or units etc., are available and they will form part of tender.

17. Delayed or late offers will be summarily rejected. Department will not be responsible for any delays.
18. Any additional information given/ sought for techno-commercial clarifications during pre-bid meeting and corresponding document will form part of contract shall be scanned and uploaded.
19. **Document Certification:** All pages of uploaded bid documents for qualification are to be duly self attested by bidder. However, AMD reserves its right to verify authenticity of any such documentation/ certification at their own discretion directly from the concerned certificate issuing authority/ offices.
20. e-tender system neither allow the bidder to download the empty bid documents such as technical evaluation sheets, Checklist and schedule of quantities nor accept to upload the same after due dates and time given in NIT.
21. Part-II (Price Bid) shall be opened only of those bidders who qualify Technical bid evaluation of Part-I (Technical Bid). The date of opening of Part-II (Price Bid) will be communicated to the qualified bidders only. Therefore, bidders are required to submit the requisite data with documents in Part -I (Technical Bid) itself

**22. LEVY/TAXES Payable by Contractor:**

- a. Goods & Services Tax (GST) or any other tax applicable in respect of inputs procured by the Contractor for this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same. However, in case of any increase in GST, the same will be allowed for payment (difference) on submission of documentary evidence. Similarly, any reduction in taxes after submission of bid shall be passed on to AMD.
- b. Income tax and cess, GST TDS as applicable shall be deducted from each bill paid to the contractor.
- c. Any other taxes /cess as per Government directives shall be deducted from each bill paid to the contractor, from time to time.
- d. Contractor should be registered under EPF & ESIC and shall pay EPF & ESIC of contract workers to concerned Department and it will be reimbursed to him by the Department after satisfying that it has been actually and genuinely paid by the contractor. The bidder should not consider EPF & ESIC in his rates.

Contractors shall comply provisions of the EPF Act, 1952 in respect of all the eligible employees / workers/ labours and submit the documentary proof regularly with every RA Bill.

- e. Any other taxes /cess as per Government directives shall be deducted from each bill paid to the contractor, from time to time.
23. The Department reserves the right to accept / reject any prospective application without assigning any reason thereof.
24. After opening of Part-I of tender, Competent Authority of AMD shall constitute a Technical Evaluation Committee which will first verify the credentials submitted online

by the bidder with respect to their eligibility for the work and if required, will visit selected worksites of on-going/completed works of the bidders to evaluate the capability of the bidders based on the following.

- a. Financial capability during the last 5 years.
- b. Turnover during the last 3 years.
- c. Technical capabilities of the company in the light of subject work.
- d. Nature of works executed by the bidder during last 5 years.
- e. Organizational structure of the company.
- f. Necessary Resource required by company to carry out the subject work.
- g. Time & quality consciousness.
- h. Tendency of the company with regard to making extraneous claims and disputes.
- i. Site planning ability.
- j. Tendency of the company to award the work on back to back / subletting.

The performance report from the executing authority shall also be considered for short listing.

**Note:** During technical evaluation, missing documents if any, can be asked by inspection committee for submission **except EMD and Bank Solvency Certificate which are mandatory to upload along with the bid.**

25. No modifications in the tender shall be allowed after opening Part-I.
26. Tenders with any condition including conditional rebate shall be rejected. However, tenders with unconditional rebate will be accepted.
27. If any information furnished by the applicant is found to be incorrect at a later stage, they shall be liable to be debarred from tendering / taking up works in AMD in future forever. Also if such a violation comes to the notice of Department before start of work, the Officer-in-charge shall be free to forfeit the entire amount of Performance Guarantee.
28. The time allowed for carrying out the work will be reckoned from the 15th day after date of written order to commence the work or from the first day of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.
29. The contractor whose tender is accepted will be required to furnish by way of security deposit for the due fulfillment of his contract, such sum as will amount to 2.5% of the tendered value of work. In addition, the bidder shall be required to deposit an amount equal to 5% of the tendered value of the contract as Performance Security. Time allowed for submission of Performance Guarantee shall be 7 days from the date of issue of letter of acceptance. Performance Security of 5% to be submitted in the form of Bank guarantees. It can also be accepted in the form of fixed deposit receipts of Scheduled Bank or in the form of Government Securities.
30. The Security Deposit will be collected by deductions @ 2.5 % of the gross amount of the running bill of the contractors till the total security deposit recovered will amount to 2.5% of the tendered value of work. The Security deposit will also be accepted in the

form of Governments Securities, Fixed deposit Receipts of Scheduled Bank and Nationalized Bank. These shall be endorsed in favour of the Pay and Accounts Officer, AMD, and Hyderabad.

31. If the successful tenderer, fails to furnish the prescribed performance guarantee on or before stipulated dates of commencement the department (AMD) shall without prejudice to any other right or remedy, be at liberty to suspend the bidder for one year from the date of issue of suspension order.
32. The acceptance of tender shall rest with department which does not bind itself to accept the lowest tender and reserves to itself the authority to reject any or all of the tenders received, without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.
33. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable for rejection.
34. On acceptance of the tender, the name of the accredited representative(s) of the contractor or who would be responsible for taking instructions from the Officer-In-charge shall be communicated to the Officer-In-charge.
35. If the information furnished by the applicant is found to be incorrect at a later stage, they shall be liable to be debarred from tendering/taking up works in AMD in future.

**36. Eligible source countries:**

**Any Bidder, from a country which shares a land border with India must comply to the Order (Public Procurement No. 1) & Order (Public Procurement No. 2) issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India, vide F. No. 6/18/2019-PPD dated 23.07.2020 and its addendum from time to time. Also, the bidder shall provide a certificate as per proforma given 'Annexure -XI'. If such declaration or certificate is found to be false or to be incorrect at any time of submission of Bid or after awarding the Contract, then the said contract will be terminated, along with such other actions as may be permissible under the relevant law of India.**

**37. Eligibility Criteria for OEM:**

- a. OEM should not have been banned/blacklisted by any Govt./Semi Govt./PSU/State Govt./Any Telecom entity in India for the supply of the material.  
**An undertaking to this effect signed by the authorized signatory to be submitted by the OEM.**
- b. OEM or Authorized distributor/Partner of OEM should have a registered office in India to provide sales and 24x7 support in India. **The certificate to this effect should be submitted.** The bidder should be either OEM or his authorized dealer/distributor.
- c. Equipment offered shall have complete data sheets and detailed description on OEM web sites. **Bidder shall provide the complete details in their bid.**

**38. Site Visit**

The **bidder should visit AMD Headquarter, Hyderabad** to understand the AMD network setup and Security requirements of AMD before bidding. It is mandatory for the bidder to collect the certificate for site visit duly signed by Officer-in-charge and enclose

it along with the bid **without which bid will be rejected**. No correspondence will be made for this.

The bidder, if interested, can visit other locations also with prior intimation to Officer-In-Charge, but it is not mandatory.

39. A duly signed self-certificate stating that the bidder has not been black listed by any institution of Central / State Government/ private sector in the past three years should be submitted.
40. During technical evaluation, the bidder shall be asked to demonstrate the proper functioning of proposed key network components (such as Switches etc.) for ensuring compatibility with existing network components at AMD Complex, Begumpet, Hyderabad.
41. To ascertain technical capabilities, the bidder should submit work orders containing the following executed works:
  - a. At least 1 work order comprising of supply & installation of passive items (such as CAT6 cables, Network racks, OFC cables), digging & laying of OFC & ethernet cables for connecting network devices and setting up minimum 500 IO ports.
  - b. At least 1 work order with supply, installation & configuration of active items (L3 and L2 managed network switches). Minimum number of switches should be 30.

Single work order containing both requirements as in points a & b above is also acceptable. Successful completion certificate for the works should also be submitted.

#### **6.17 Disclaimers and Rights:**

The issue of the Tender Document does not imply that AMD is bound to select bid(s), and it reserves the right, without assigning any reason, to:

- a) reject any or all of the Bids, or
- b) cancel the tender process at any stage; or
- c) abandon the procurement of Equipment(s) and Services; or
- d) issue another tender for identical or similar Equipment(s) and Services

## Section II: Instructions to Bidders (ITB)

# **1. The Tender Document**

## **1.1. Basic Tender Details**

The ‘Tender Document’ (hereinafter referred to as the ‘the Tender Document’) details the terms and conditions for entering into a contract with System Integrator for the execution of turnkey project (BoQ & Scope of work detailed as per Section-V & Section –VII respectively). Bidders must go through the entire Tender Document for further details.

## **1.2. Interpretations, Definitions, Abbreviations**

General Conditions of Contract (GCC), detailed Tenets of interpretation (GCC-clause 1.1), Definitions (GCC-clause 1.2), and Abbreviations (GCC-clause 1.3) in Section III of this document, shall also apply to the rest of the Tender Document.

## **1.3. Overview of Contents**

- a. the Sections, Forms and Formats comprising this Tender Document are described in Instruction to Bidders (ITB)-clauses 1.4, 1.5 and 1.6 below. Any generic reference to Tender Document shall also imply a reference to any/ all the sections, Forms, Formats and the BoQ or other files that comprise this Tender Document.
- b. Bidder must submit the bid in the Forms/ Formats mentioned in ITB-clauses 1.5 and 1.6 below along with signed tender document along with its all corrigendum and addendums. Bidder must declare in his bid (Annexure-II) that he has read, understood, complied, and stands bound by all requirements.

## **1.4. Sections of the Tender Document**

the Tender Document contains the following sections, which are described in subsequent sub-clauses:

- 1) Section I: Notice Inviting Tender (NIT)
- 2) Section II: Instructions to Bidders (ITB)
- 3) Section III: General Conditions of Contract (GCC)
- 4) Section IV: Technical Specifications
- 5) Section V: Bill of Quantities (BoQ)
- 6) Section VI: Qualification Criteria
- 7) Section VII: Complete Scope of Work

### **1.4.1. Section I: Notice Inviting Tender (NIT)**

Section I – Notice Inviting Tender (NIT) provides a synopsis of information relevant for a Bidder.

### **1.4.2. Section II: Instructions to Bidders (ITB)**

**Section II: “Instructions to Bidders”** - ITB provides the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of Bids. It also includes the mode and procedure adopted for receipt/ opening/ evaluation of Bids, and contract award.

### **1.4.3. Section III: General Conditions of Contract (GCC)**

Section III – General Conditions of Contract (GCC) describe the conditions that shall govern the resulting contract. In case of any conflict, provisions of GCC shall prevail over those in ITB and in case of any conflict of this tender document from CPP GTC, provisions of this tender document shall prevail over those in CPP GTC

### **1.4.4. Section IV: Technical Specifications**

Section IV – This Section lays down the technical specification of the Equipment and services required. Bidders must give Compliance for all the specifications in Annexure-V: Technical Specifications compliance.

### **1.4.5. Section V: Bill of Quantities**

Section V – Bill of Quantities (BoQ) describes the Equipment and Services required; Quantities and Units; City of Delivery; Bidder must fill up Annexure - IV.

### **1.4.6. Section VI: Qualification Criteria:**

Section VI: Qualification Criteria lay down the Qualifying Criteria for a bid/ Bidder to be considered a responsive bid/ bidder for further evaluation. Bids/ bidders not meeting these Qualification criteria shall be rejected as nonresponsive.

### **1.4.7. Section VII: Scope of Work is defined in this section.**

## **1.5. Forms (To be filled, digitally signed, and uploaded by Bidders)**

Please refer to clause 1.4 above to relate the following forms to the corresponding Sections.

- 1) Covering letter format for Bid Submission-Annexure-II
  - 2) Bidder Information -Annexure-III
  - 3) Bill of Quantities - Compliance - Annexure-IV
  - 4) Technical Specifications- Compliance - Annexure-V
  - 5) Declaration confirming filing of IT returns - Annexure-VI
  - 6) Banker's certificate from Scheduled bank- Annexure-VII
  - 7) Turnover for last 3 yrs- Annexure-VIII.
  - 8) Performance Report of Similar Works
  - 9) Compliance to Bid Requirement - Annexure-X.
  - 10) Certificate for Eligible Source Countries- Annexure-XI
  - 11) Declaration of Local Content- Annexure-XII
  - 12) Site Visit Report Letter-Annexure-XIII
  - 13) Tender Acceptance Letter-Annexure-XIV
- Signed tender document along with its all Clarifications, corrigendum and addendums

## **1.6. Other Form & Formats**

Annexure-XVI : No Claim Certificate

Annexure-XIX : Authorization for Attending Pre-bid Conference.

## **2. Bidders - Eligibility and Preferential Policies**

Subject to provisions in the following clauses in this section and provisions in Tender Document, this invitation for Bids is open to all bidders who fulfill the 'Eligibility Criteria' and 'Qualification Criteria' stipulated in the Tender Document.

## **3. Purchase preference to Make in India**

Purchase preference to the qualified bidders for Make in India would be provided in line with Public Procurement (Preference to Make in India) Order 2017" (MII) of Department for Promotion of Industry and Internal Trade, (DPIIT - Public Procurement Section) as revised and amended from time to time including the Letter No. P-45021/2/2017-PP (BE-II). Dated 16th September, 2020 issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, GoI as amended from time to time and F. No. W-43/4/2019-IPHW-MeitY 07/09/2020 issued by IPHW division of MeitY.

### **3.1. Definition of Local Content and Categories of Local Suppliers**

Bidders/Contractors are divided into three categories based on Local Content. Local content means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the Item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

- a) 'Class-I local Supplier' is a supplier with local content equal to or more than 50%.
- b) 'Class-II local Supplier' is a supplier with local content equal to or more than 20%, but less than that applicable for Class-I local Supplier.
- c) 'Non - Local Supplier' is a supplier with local content less than that applicable for Class-II local Supplier, in sub-clause above.
- d) The margin of purchase preference shall be 20%.

### **3.2. Eligibility to participate**

- a) Classes of Local Suppliers eligible to Participate: Based on the Make in India Policy, only Class-I and Class-II local Suppliers shall be eligible to participate in this bid.
- b) Minimum local content for eligibility to participate shall be 20%.
- c) Non - local suppliers are not eligible to participate in this bid.

### **3.3. Classification of Procurement and purchase preference methodology:**

Under this tender, Procurement of Equipment(s) and works are not divisible in nature. This is an integrated work and objective of work is to upgrade the existing Local Area Network in multiple remote locations by replacing the Active & Passive Components of the network. The contractor is responsible for supply, installation, configuration, commissioning, Integration of newly installed Devices with existing Network devices to ensure reliable functioning of entire network. As such work is clearly indivisible in nature and required to be carried out as a turnkey project consisting procurement and integration of networking, security and other hardware and software. Hence bids will be evaluated on total bid price and Class-I local supplier will get purchase preference over Class-II local supplier as per following procedure:

- a) Among all qualified bids, the lowest bid shall be termed as L-1. If L-1 is 'Class-I local Supplier', the contract shall be awarded to L-1.

- b) If L-1 is not 'Class-I local Supplier', the lowest bidder among the 'Class-I local Supplier' shall be invited to match the L-1 price subject to Class-I local Supplier's quoted price falling within the margin of purchase (20%) preference, and the contract shall be awarded to such 'Class-I local Supplier' subject to matching the L-1 price.
- c) If such lowest eligible 'Class-I local Supplier' fails to match the L-1 price, the 'Class-I local Supplier' with the next higher and so on, bid within the margin of purchase preference shall be invited to match the L-1 price, and the contract shall be awarded accordingly. If none of the 'Class-I local Supplier' within the margin of purchase (20%) preference matches the L-1 price, the contract will be awarded to the L-1 bidder.
- d) No purchase preference will be given to Class-II local suppliers.

### **3.4. Calculation of Local Content in bid to be taken care by bidder**

As this bid requires supply of multiple items (say "X1", "X2" and "X3") by a single bidder, the local content calculation by the bidder in the bid shall be done as per below mentioned formula & conditions as per available on DPIIT website.

<https://dpiit.gov.in/sites/default/files/RTI%20FAQ.pdf>

- a) Local content =  $\frac{((\text{Sale price of "X1"} - \text{Value of imported content in "X1"}) + (\text{Sale price of "X2"} - \text{Value of imported content in "X2"}) + (\text{Sale price of "X3"} - \text{Value of imported content in "X3"}))}{(\text{Sale price of "X1"} + \text{Sale price of "X2"} + \text{Sale price of "X3"})} \times 100$ . Where, "Sale price" means price excluding net domestic indirect taxes and "Value of imported content" means price of imported content inclusive of all customs duties.
- b) The cost of transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. will not be taken into account for calculating local content in any equipment.

### **3.5 Verification of local content and violations:**

- 1) The 'Class-I local Supplier' / 'Class-II local Supplier' at the time of tender, bidding, or solicitation shall be required to indicate the percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local Supplier' / 'Class-II local Supplier', as the case may be.
- 2) The 'Class-I local Supplier' / 'Class-II local Supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) giving the percentage of local content as specified in Annexure-XII.
- 3) AMD reserves the right to seek any clarification/document/certification w.r.t compliance with MII orders referred above till the time of completion of tender process.
- 4) False declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

## **4. Bid Prices, Taxes and Duties**

### **4.1. Prices**

#### **4.1.1. Competitive and Independent Prices**

- a) The prices should be arrived at independently, without restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to:
  - i) those prices; or
  - ii) the intention to submit an offer; or
  - iii) the methods or factors used to calculate the prices offered.
- b) The prices should not be knowingly disclosed by the Bidder, directly or indirectly, to any other bidder or competitor before bid opening or contract award unless otherwise required by law.

#### **4.1.2. Price Schedule**

- 1) Bidders are to quote value of each line item in the Price Bid (BoQ) which is to be uploaded on CPP Portal. In case of any discrepancy between rates mentioned in figures and words, the later shall prevail.
- 2) Bidders shall fill in their rates other than zero value. Bid will be liable to be rejected if bidder has filled Rs. 0 (zero) for any line item except for the line item wherein mentioning of zero value is allowed in Price Bid (BoQ).
- 3) The quoted unit price shall be considered to include all relevant financial implications.

#### **4.1.3. Currencies of Bid and Payment**

The currency of bid and payment shall only be Indian Rupees. All payments shall also be made in Indian Rupees only.

#### **4.1.4. Non-compliance**

Bids, wherein prices are quoted in way other than the specified format, may be rejected as non-responsive.

### **4.2. Firm/ Variable Price**

#### **4.2.1. Firm Price**

Prices quoted by Bidder shall remain firm and fixed during the currency of the contract and not subject to variation on higher side any account.

### **4.3. Goods and Services Tax (GST)**

- 1) Bidders should ensure that they are GST compliant Bidder should be registered under GST and furnish GSTIN number and GST Registration Certificate in their bids.
- 2) Bidder/Contractor undertakes that in case of non-compliance by the Bidder(s) of the GST provisions which results in blockage/reversal of any input tax credit to AMD, Bidder/Contractor shall be liable to indemnify the AMD any such loss of input credit

including interest, penalty and all incidental expenses incurred by AMD. Such indemnification may also be by way of invocation of any security deposit, deduction from any payment that AMD has to make to the Bidder/Contractor, as per the discretion of the AMD.

- 3) Bidder/Contractor undertakes to raise invoice within 10 days from date when the right to raise invoice and demand for payment accrues as per the contract terms. In case invoice is raised and submitted before the due date; then AMD reserves the right to return such invoice(s) to the Bidder/Contractor. In such a situation Bidder/Contractor would be required to raise fresh invoice as per the contract terms.
- 4) If the Bidder/Contractor fails to adhere to the terms & conditions of the contract and AMD deducts Liquidated Damages and/or SLA penalties for the same, then in such a case; AMD will charge GST over and above the Liquidated Damages and/or SLA penalties; as the case may be; and same shall be recovered from the Bidder/Contractor. This may vary; depending on the prevailing rules on the subject when such deduction is made.
- 5) Along with the invoice; Bidder/Contractor would be required to submit relevant documentary evidence to the effect that invoice submitted was issued either through e-Invoice system of GST or has been updated on GSTN portal using Invoice Furnishing Facility (IFF).
- 6) AMD reserves the right to ask the Bidder/Contractor to submit relevant documents to ensure that they are GST compliant and in such a case Bidder/Contractor shall forthwith provide all such documents as may be required by AMD.

## **5. Downloading the Tender Document; Corrigenda and Clarifications**

### **5.1. Downloading the Tender Document**

The Tender Document shall be published and be available for download as mentioned on CPP portal. The Bidders can obtain the Tender Document after the date and time of the start of availability till the deadline for availability.

### **5.2. Corrigenda/ Addenda to Tender Document**

Before the deadline for submitting bids, AMD may update, amend, modify, or supplement the information, assessment or assumptions contained in the Tender Document by issuing Clarifications, corrigenda and addenda. Its bidder's responsibility to check the CPP Portal for any Clarification/corrigenda/ addenda. Any Clarification or corrigendum or addendum thus issued shall be considered a part of the Tender Document.

### **5.3. Clarification on the Tender Document**

Prospective Bidders or their authorized representative may submit Pre-bid queries in online mode (as per Annexure-XV) during the date and time as mentioned in the tender Document for seeking clarification on Tender Document.

## **6. Pre-bid Meeting**

- 1) Pre-Bid meeting will be conducted in hybrid mode (online and offline) at the date and time as specified in the tender document.
- 2) Bidder may send email to Officer-In-Charge to get the online meeting link for the pre-bid meeting.
- 3) Bidders or their authorized representatives who want to attend pre-bid meeting in physical mode can visit AMD HQ, Begumpet Office at the date and time as specified in the tender document for the pre-bid meeting.
- 4) Participation is not mandatory. However, if a bidder chooses not to (or fails to) participate in the Pre-bid meeting and/or does not submit written query, as specified in 5.3 of Section-II, it shall be assumed that they have participated in this tender process only after understanding the tender document in its entirety.
- 5) Delegates participating in the Pre-bid meeting (online / offline) must submit Annexure-XIX through an email to Officer-In-Charge, from its official email account.
- 6) After the Pre-bid meeting, clarifications (if any) shall be published on the CPP portal. If required, a corrigendum to the Tender Document shall be issued, containing amendments to the provision(s) of the Tender Document, which shall form integral part of the Tender Document. To give reasonable time to the prospective bidders to take such clarifications into account in preparing their bids, AMD may suitably extend, as necessary, the deadline for the bid submission.

## **7. Preparation of Bids**

### **7.1. The bid**

#### **7.1.1. Language of the bid**

The bid submitted by Bidder and all subsequent correspondence and documents relating to the bid exchanged between Bidder and AMD shall be written in English. However, the language of any printed literature furnished by Bidder in connection with its bid may be written in any other language provided a translation accompanies the same in the bid language. For purposes of interpretation of the bid, translation in the language of the bid shall prevail.

#### **7.1.2. Local Conditions and Factors**

Bidders shall themselves be responsible for compliance with Rules, Regulations, Laws and Acts in force from time to time at relevant places. On such matters, AMD shall have no responsibility and shall not entertain any request from the bidders in these regards.

#### **7.1.3. Cost of Bidding**

The Bidder(s) shall bear all direct or consequential costs, losses and expenditure associated with or relating to the preparation, submission, and subsequent processing of their Bids, including but not limited to preparation, copying, postage, uploading, downloading, delivery fees, expenses associated with any submission of samples, demonstrations, or presentations which the AMD may require, or any other costs incurred in connection with or relating to their Bids. All such costs, losses and expenses shall remain with the Bidder(s), and AMD shall not be liable in any manner whatsoever for the same or any other costs, losses and expenses incurred by a Bidder(s) for participation in the Tender Process, regardless of the conduct or outcome of the Tender Process.

#### **7.1.4. Interpretation of Provisions of the Tender Document**

The provisions in the Tender Document must be interpreted in the context in which these appear. Any interpretation of these provisions far remote from such context or other contrived or in between-the-lines interpretation is unacceptable.

#### **7.1.5. Alternative Bids not allowed**

Conditional offers, alternative offers, multiple bids by a bidder shall not be considered. The CPP Portal shall permit only one bid to be uploaded.

### **7.2. Documents comprising the bid:**

- 1) Covering letter format for Bid Submission-Annexure-II
- 2) Bidder Information -Annexure-III
- 3) Bill of Quantities - Compliance - Annexure-IV
- 4) Technical Specifications- Compliance - Annexure-V
- 5) Declaration confirming filing of IT returns - Annexure-VI
- 6) Banker's certificate from Scheduled bank- Annexure-VII
- 7) Turnover for last 3 yrs- Annexure-VIII
- 8) Performance Report of Similar Works
- 9) Compliance to Bid Requirement - Annexure-X.
- 10) Certificate for Eligible Source Countries- Annexure-XI
- 11) Declaration of Local Content- Annexure-XII
- 12) Site Visit Report Letter-Annexure-XIII
- 13) Tender Acceptance Letter-Annexure-XIV

#### **7.2.1. Technical bid**

"Technical Bid" shall include inter-alia the original or scanned copies of duly inked signed or digitally signed copies of the following documents in .pdf format. PDF documents should not be password protected. No price details should be given or hinted in the Technical bid:

- 1) Covering letter format for Bid Submission-Annexure-II
  - i. Bidder Information;
- 2) Bill of Quantities (BoQ) - Compliance: Bidders should fill this form to detail the Schedules of Equipment & Services offered by them, maintaining the same numbering and structure. The bidder should also clearly indicate brand name, type / model number of the material offered.
- 3) Technical Specifications- Compliance: Bidder shall upload the required and relevant documents like make & model, technical data, literature, drawings, datasheets, test Reports/ Certificates and or/ or Type Test Certificates (if applicable/ necessary) with supporting documents, to establish that the Equipment and Services offered in the bid fully conform to the Equipment and Services specified by AMD in the Tender Document.
- 4) 'Qualification Criteria- Compliance': Documentary evidence needed to establish the Bidder's and OEMs qualifications and MAF as stipulated in Section VI: Qualification Criteria as follows. Besides the stipulated documents, other supporting documents, literature, pamphlets may also be attached.

- 5) Terms & Condition Compliance: Bidder must submit compliance of Terms & conditions.
- 6) Make in India Certificate [To be certified by statutory auditor or cost auditor of the company (in the case of companies) giving the percentage of local content].
- 7) Any other format/ form if stipulated or if considered relevant by the bidder

#### **7.2.2. Price bid**

"Price bid" shall comprise the Price Schedule considering all financially relevant details, including Taxes and Duties as per as per Price Bid (BoQ) Proforma.

#### **7.3. Bid Validity**

- 1) Bid Validity should be equal to the period mentioned in Bid Document on CPP Portal. Any bid valid for a shorter period shall be rejected as nonresponsive.
- 2) If required, before the expiry of the original time limit, AMD may request the bidders to extend the validity period for a specified additional period. The request and the bidders' responses shall be made in writing or electronically or as per CPP portal. A bidder who has agreed to the AMD's request for extension of bid validity, in no case, bidder shall be permitted to modify his bid.

#### **7.4. Non-compliance with these provisions**

Bids are liable to be rejected as nonresponsive if a Bidder:

- 1) fails to provide and/ or comply with the required information, instructions etc., incorporated in the Tender Document or gives evasive information/ reply against any such stipulations.
- 2) furnishes wrong and/ or misleading data, statement(s) etc.

### **8. Signing and Uploading of Bids**

#### **8.1. Relationship between Bidder and CPP Portal**

AMD is neither a party nor a principal in the relationship between Bidder and the organization hosting the CPP portal. Bidders must acquaint and train themselves with the rules, regulations, procedures, and implied conditions/ agreements of the CPP Portal. Bidders intending to participate in the bid shall be required to register in the CPP Portal. Bidders shall settle clarifications and disputes, if any, regarding the CPP Portal directly with them.

#### **8.2. Signing of bid**

The individual signing/ digitally signing the bid or any other connected documents should submit Copy of Board Resolution and/ or Power of attorney on Stamp Paper for authorize signatory, which authorizes the signatory to commit and submit bids on behalf of the bidder in Bidder Information (Annexure-III). In case the bidder is awarded the contract then the person authorize by the bidder shall continue to act as the authorize representative of the bidder till the time of completion of contract. Any change in authorize signatory should be informed forthwith to AMD along with the relevant document of authorize signatory.

### **8.3. Submission/ uploading of Bids.**

#### **8.3.1. Submission/ Uploading to the Portal**

- 1) No manual Bids shall be made available or accepted for submission. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling the required information – otherwise, the bid shall be rejected as nonresponsive.
- 2) Bids shall be received only through CPP portal on or before the deadline for the bid submission.
- 3) Only one copy of the bid can be uploaded, and Bidder shall digitally sign all statements, documents, certificates uploaded by him, owning sole and complete responsibility for their correctness/ authenticity as per the provisions of the IT Act 2000as amended from time to time.
- 4) Bidders need to sign or up-load the Tender Document along with its clarifications, corrigendum & amendments. It is assumed that Bidder commits itself to comply with all the Sections and documents uploaded by the Tender Inviting Officer.
- 5) Bidder must upload scanned copies of originals (or self-attested copies of originals – as specified). Uploaded PDF documents should not be password protected. Bidder should ensure the clarity/ legibility of the scanned documents uploaded by them.
- 6) AMD reserves its right to call for verification originals of all such self-certified documents from the Bidders at any stage of evaluation, especially from the successful Bidder(s) before the issue of Contract.
- 7) Bidder shall upload the price as per Financial Bid (BoQ) on CPP Portal without any Zero values for any line item except for the line item wherein mentioning of zero value is allowed in Financial Bid (BoQ).
- 8) The date and time of the deadline for the bid submission shall remain unaltered even if the specified date is declared a holiday for the Tender Inviting Officer.
- 9) AMD shall not be responsible for any failure, malfunction or breakdown of the electronic system/internet issues used during the e-Tender Process at bidder's end.
- 10) AMD may extend the deadline for bids submission in which case all rights and obligations of AMD and the bidders previously subject to the original deadline shall then be subject to the new deadline for the bid submission.
- 11) Bid submitted through modalities other than those stipulated in tender document shall be liable to be rejected as nonresponsive.

#### **8.3.2. Implied acceptance of procedures by Bidders**

Submission of bid in response to the Tender Document is deemed to be acceptance of the tender procedures and terms & conditions of the Tender Document.

#### **8.3.3. Withdrawal of Bids**

- 1) The bidder may withdraw his bid before the bid submission deadline.
- 2) No bid should be withdrawn after the deadline for the bid submission and before the expiry of the bid validity period.

## **9. Bid Opening**

The date & time of the opening of bid is as stipulated in on CPP Portal.

## **10. Evaluation of Bids and Award of Contract**

### **10.1. General norms**

#### **10.1.1. Evaluation based only on declared criteria.**

The evaluation shall be based upon scrutiny and examination of all relevant data and details submitted by Bidder in its bid and other allied information deemed appropriate by AMD. Evaluation of bids shall be based only on the criteria/ conditions included in the Tender Document.

#### **10.1.2. Minor Infirmary**

- 1) In case of any minor infirmity in the bid document of bidder, the decision of AMD shall be final in this regard.
- 2) Wherever necessary; AMD shall convey its observation to Bidder through email asking Bidder to respond by a specified date. If Bidder does not reply by the specified date or gives an evasive reply without clarifying the point at issue in clear terms, that bid shall be liable to be rejected as non-responsive.

#### **10.1.3. Clarification of Bids and shortfall documents**

- 1) During the evaluation of Technical or Price Bids, AMD may, at its discretion, but without any obligation to do so, ask Bidder to clarify its bid within 3 days (or within the given time). The request for clarification shall be sent through email, and no change in prices or substance of the bid shall be sought, offered, or permitted that may grant any undue advantage to such bidder.
- 2) AMD may ask original documents of uploaded scanned copies. If any substantive discrepancy found between original and Scanned uploaded copies; then the bid shall be liable to be rejected as non-responsive.
- 3) AMD reserves the right to seek any Clarification/information/ documents from the bidder. The requisite documents from any bidders may be taken as per CPP procedure after the technical bid opening. Decision in this regard shall be final and binding on all the bidders.

#### **10.1.4. Contacting AMD during the evaluation**

From the time of bid submission to awarding the contract, no Bidder shall contact the AMD on any matter relating to the submitted bid. If a Bidder needs to contact the AMD for any reason relating to this tender and/ or its bid, it should do so only in writing or electronically. Any effort by a Bidder to influence AMD during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation and bid shall be liable to be rejected as nonresponsive.

### **10.2. Evaluation of Bids**

#### **10.2.1. The evaluation process:**

This Tender Process comprises of two Bid system i.e Technical and Financial Bids. Initially, only the technical bids shall be opened on the stipulated date of opening of bids. After that, the technical bids evaluation shall be done to ascertain whether and how many bids are meeting the eligibility, qualification criteria and technical aspects. Opening of financial bids and their

evaluation will be done in respect of only those bids which were submitted by those Bidders whose technical bid are declared successful after the evaluation process.

### **10.3. Technical Evaluation**

Only substantively responsive bids shall be evaluated for technical evaluation. While evaluating the technical bid, conformity to the eligibility and qualification criteria, technical specifications of the offered Equipment and Services in comparison to those specified in the Tender Document will be ascertained. Additional factors incorporated in the Tender Document shall also be considered in the manner indicated there-in. Bids with deviations leading to non-conformity shall be rejected as non-responsive. However, AMD reserves its right to consider and allow minor deviations in technical Conditions as per ITB-clause 10.1.2.

#### **10.3.1. Evaluation of eligibility**

AMD shall determine, to its satisfaction, whether the Bidders are eligible to participate in the Tender Process and also as per submission of the required forms. Bids that do not meet the required eligibility criteria prescribed shall be rejected as nonresponsive.

#### **10.3.2. Evaluation of Qualification Criteria**

Thereafter, AMD shall determine, to its satisfaction, whether the eligible bidders are qualified and capable in all respects to perform the contract satisfactorily. This determination shall, inter-alia, consider the Bidder's financial, technical or other prescribed eligibility for meeting requirements incorporated in the Tender Document.

#### **10.3.3. Evaluation of Conformity to Bill of Quantities and Technical Specifications and other parameters specified in Tender document**

Technical Evaluation Committee (TEC) of AMD will finally shortlist Technical Bids on the basis of technical solution, conformity of technical specifications, parameters, features offered vis-à-vis tendered specifications requirements, etc. If required, the short-listed bidders may be asked for a detailed technical presentation, discussion on the solution and items offered in the bid. Further, TEC may ask the bidder to bring any selected Equipment(s)/items, sub items of their quoted equipment(s) for technical evaluation at AMD, Hyderabad in specified time limit with three days. In case, bidder fails to bring their quoted equipment(s) within the stipulated time, for whatever reasons, their bid will not be considered for further evaluation. It is bidder's responsibility to showcase the desired parameter quoted in the bid by bidder. To do this, if bidder has to bring different tools, it will be responsibility of bidder to arrange at no cost to AMD.

#### **10.3.4. Declaration of Technically Suitable Bidders and Opening of Price Bids**

Bids that succeed in the above technical evaluation shall be considered for financial evaluation. The list of such technically successful bidders and the date and time for the opening of their price bids shall be declared on the CPP Portal.

### **10.4. Evaluation of Price Bids and Award of Contract**

Evaluation of the price bids shall be on the price criteria only and in line with the policies of the Government of India, as amended from time to time, AMD reserves the right to give purchase preferences to eligible categories of Bidders as indicated in the Tender Document.

#### **10.4.1. Right to Vary Quantities**

AMD reserves the right to increase or decrease the quantity to be ordered up to 30 percent of final bid value at the time of placement of contract. AMD also reserves the right to increase the ordered quantity by up to 30% of the final bid value during the contract period at the contracted rates. Bidders are bound to accept the orders accordingly.

### Section III: General Conditions of Contract

# **1. General**

## **1.1. Tenets of Interpretation**

Unless where the context requires otherwise, throughout the contract:

- 1) The heading of these conditions shall not affect the interpretation or construction thereof.
- 2) Writing or written includes matter either whole or in part, in digital communications, manuscript, typewritten, lithographed, cyclostyled, photographed, or printed under or over signature or seal or digitally acceptable authentication, as the case may be.
- 3) Words in the singular include the plural and vice-versa.
- 4) Any reference to 'Equipment' shall be deemed to include the complete work i.e. delivery, installation, testing, training, commissioning, warranty & any other service stipulated in tender document.
- 5) Any reference to any Act, Government Policies or orders shall be deemed to include all amendments to such instruments, from time to time.

## **1.2. Definitions**

In the contract, unless the context otherwise requires:

- i. "bid" (including the term 'tender', 'offer', 'quotation' or 'proposal' in specific contexts) means an offer to supply Equipment, services or execution of works made as per the terms and conditions set out in a document inviting such offers.
- ii. "Bidder" (including the term 'Bidder', ' ', contractor, System Integrator, or 'service provider' in specific contexts) means any person or firm or company, every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency branch or office controlled by such person, participating in a Tender Process.
- iii. "Bill of Quantities" {(including the term Financial Bid (BOQ))} means the financial sheet and complete Bill of Quantities forming part of the bid.
- iv. "Consignee" means the person to whom the Equipment are required to be delivered as stipulated in the contract or intimates at later date.
- v. "Day", "Month", "Year" shall mean calendar day/ month or year (unless reference to financial year is clear from the context).
- vi. "General Conditions" means the General Conditions of Contract, also referred to as GCC.
- vii. "Location of Delivery" the delivery of the Equipment shall be deemed to take place on delivery of the Equipment, at following places (as defined in BoQ) as per the terms and conditions of the contract.
- viii. "Consignee" The consignee at his premises; or the consignee at the destination station in case of a contract stipulating for delivery of Equipment at the destination station.
- ix. "Specification" or "Technical Specification" means the drawing/ document/ standard or any other details governing the supply of Equipment or performance of services that

prescribes the requirement to which Equipment or services have to conform as per the contract.

### 1.3. Abbreviations:

| Abbreviation | Definition                                              |
|--------------|---------------------------------------------------------|
| BOQ          | Bill of Quantities (Financial Bid)                      |
| DP           | Delivery Period                                         |
| DPIIT        | Department for Promotion of Industry and Internal Trade |
| DSC          | Digital Signature Certificate                           |
| GCC          | General Conditions of Contract                          |
| GST          | Goods and Services Tax                                  |
| ITB          | Instructions To Bidders                                 |
| MII          | Make in India                                           |
| MPLS         | Multi-Protocol Label Switching                          |
| NIT          | Notice Inviting Tender                                  |
| OEM          | Original Equipment Manufacturer                         |
| PAN          | Permanent Account Number                                |
| TDS          | Tax Deducted at Source                                  |
| TIA          | Tender Inviting Authority                               |

## 2. The Contract

### 2.1. Language of Contract

The contract shall be written in the Official Language or English. All correspondence and other contract documents, which the parties exchange, shall also be written/ translated accordingly in that language. For purposes of interpretation of the contract, the English documents/ translation shall prevail.

### 2.2. Contract Documents

The following documents shall be considered to be an integral part of the contract, irrespective of whether these are not appended/ referred to in it. Any generic reference to 'Contract' shall imply reference to all these documents as well:

- 1) Work Contract issued by AMD.
- 2) Valid and authorized Amendments issued to the contract.
- 3) Final written submissions made by the contractor during negotiations, if any;
- 4) The bid document submitted by Bidder;
- 5) Forms and Formats signed and submitted by bidder
- 6) Modifications/ Amendments, Waivers and Forbearances

7) Tender Document and its amendment/Corrigendum

**2.2.1.Modifications/ Amendments of Contract**

- 1) If any of the contract provisions must be modified after the contract documents have been signed, the modifications shall be made in writing and signed by Competent authority of AMD, and no modified provisions shall be applicable unless such modifications have been done. No variation in or modification of the contract terms shall be made except by a written amendment signed by Competent authority of AMD. Requests for changes and modifications may be submitted in writing by the contractor to AMD. At any time during the currency of the contract, AMD may suo-moto or, on request from the contractor, by written order, amend the contract by making alterations and modifications within the general scope of the Contract.
- 2) If the contractor does not agree to the suo-moto modifications/amendments made by the AMD, it shall convey its views within 10 days from the date of amendment/modification conveyed. Otherwise, it shall be assumed that the contractor has consented to the amendment.
- 3) Any verbal or written arrangement abandoning, modifying, extending, reducing, or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on AMD unless and until the same is incorporated in a formal instrument and signed by Competent authority of AMD, and till then AMD shall have the right to repudiate such arrangements.

**3. General Conditions**

**3.1. Information**

The Technical specifications shall be applicable as per BoQ items only. The scope under general conditions together with the tender drawings covers the packing for transport to site, transport, loading and unloading, handling of equipment at site, testing and commissioning, putting the systems into service, carrying out all the acceptance tests, training, operating and handing over to the Department.

The bidder is required to quote for the complete work, though Department reserve the right to award the work in full or in part or even cancel the tender.

**3.2. Materials and Workmanship**

*All the supplied items shall conform to the requirements described under Technical specification and Should be certified by standard agencies **approved/ recognized /authorized by Govt. of India**, similar to BIS/TEC/STQC/ISI etc. Where material requirements are not specified they shall conform to the applicable standards and codes approved by the Department. All the items shall be new, free from defects and first class in all respects. Parts shall be free from flaws and objectionable imperfections and shall be machined true in a workman like manner.*

**3.3. Network Architecture and Layout Drawings**

- (a) The bidder shall discuss with the Officer-In-Charge and prepare the working drawings of the Network Architecture and Layout Plan for each location and shall submit the same to the department for approval.

- (b) After completion of work, the contractor shall have to submit minimum two copies of documents (as listed in Sl. No. 3 of Section VII of this document) each along with soft copy of drawings which will be kept in department for further reference.
- (c) Where the drawings and specification conflict, the most stringent shall be followed. The instruction of Department shall be final & binding.
- (d) The entire system design guarantee and to achieve the design parameters will be the responsibility of the Tenderer. He should include all the items required for satisfactory completion. Tenderer shall point out all deviations from the BoQ, drawings and specifications in their offer and shall specifically confirm works not included in their scope before opening of the financial bid. Nothing extra shall be payable on any account thereafter.

### **3.4. General Instructions**

- The contractor's proposal must include everything required to make a complete working of the system whether specifically shown and specified or not, including all labour and material, transportation etc. necessary for the complete installation of everything described and provided and ready for Owner's use.
- It shall be the responsibility of tenderer to check the suitability & site constraints for installing the systems at site.
- Any apparatus, appliance material and labour which may be necessary to complete the work in accordance with the intent or purpose of these specifications and as instructed by Department for the execution of the project / system shall be furnished by the contractor without extra cost irrespective of specifically specified in and / or shown in the specifications, or not.
- The contractor should bring the necessary equipment which is required for testing without any additional cost.
- The work shall be done in conformity to the specifications, accompanying operation and with the requirement of the general, architectural and structural plans & other regulatory & statutory bodies, if required.

### **3.5. Inspection and Testing**

- (a) The contractor shall perform all tests and inspection necessary to ensure that the items and workmanship conform to the requirements of the contract including design, fabrication, drawings approved by the Department or their authorized representative.
- (b) The Department or their authorized representative shall have access to the contractor's works at all reasonable time to determine compliance with the provisions of this specification and / or to witness the contractor's inspection and tests.
- (c) All tests covered by this specification shall be subject to inspection and approval by the Department.
- (d) The contractor shall maintain records of all inspection works carried out in his works. Copies of such records shall be made available to the department upon request and shall become the property of the Department. A procedure for the repair of instrument or accessories shall submit to the Department for approval, prior to any repair modifications being made. If the previous quality test and inspection are impaired by the subsequent repairs, the work shall be re-inspected and re-tested to the satisfaction

of the Purchaser or his authorized representative. Equipment found unsatisfactory as to workmanship or material shall be removed by the contractor and replaced to the satisfaction of Department at no extra cost.

- (e) Final acceptance will be after the equipment is installed and tested at site to give satisfactory performance.
- (f) The Contractor shall provide the necessary equipment and tooling instruments, drawings and personnel etc. required for inspection of the work.
- (g) Strict measures of quality control shall be exercised throughout the work.
- (h) The contractor shall submit the following documents before acceptance -
  - i. All the tests observations
  - ii. All the operation & maintenance manuals
  - iii. Leaflet & literature
  - iv. All the drawing i.e. power cable routing, data cable routing, equipment installation drawing etc.
  - v. Test Certificate
  - vi. Warranty Certificate
  - vii. Details of person to be contacted during Warranty period

### **3.6. Test at Site**

- (a) During the installation and commissioning all the equipment shall be inspected before they are installed. After installation, the system shall be checked for satisfactory performance.
- (b) After the complete installation and commissioning of the system with all accessories at site, these shall be tested by the contractor in presence of Officer-In-Charge to check and access their functional performance. The test to be conducted at site in the presence of the Department's representative, shall include but not limited to the following:
  - i. To check specifications and performance after the installations of entire system.
  - ii. To check proper and continuously reliable operation of the system equipment & controls regulating the equipment as applicable after the complete installation of system.
  - iii. All required instruments consumables & services for the above tests shall be provided by the contractor.

### **3.7. Spares and Tools**

#### **(a) Spares**

The contractor shall submit a complete list of recommended spare parts for the equipment supplied by them.

#### **(b) Tools**

All special tools required for operation and maintenance of the system shall be supplied

by the contractor at agreed cost.

### **3.8. Warranty**

- (a) The contractor shall ensure the trouble free & efficient performance of the network systems during three-year warranty period (excluding shut down period due to scheduled maintenance by AMD). The three-year warranty should start after successful supply, installation & commissioning of all items as per BoQ for a location and from the date of acceptance for that location by Officer-in-charge. Contractor will have to attend all the faults and replace all material free of cost during warranty period.
- (b) The contractor shall further guarantee that the system for optimum operation, the power consumption shall not exceed, under any operating conditions the value specified in the Technical Data Sheets.

### **3.9. Technical Data**

Technical data of all equipment and accessories shall be furnished as required.

### **3.10. Contractor's Liability for Loss, Damages etc.**

During the execution of contract and until completion certificate issued, the contractor will be fully liable to compensate all concerned for any loss, damage or destruction of "Works" structures, Plant and machinery, persons, property etc., including natural calamity and third-party risk arising due to causes attributable to the contractor as may be decided by whose decision in this regard shall be final.

### **3.11. Information to be included with the Tender**

The tender shall provide sufficient information to permit a detailed comparison and evaluation of the tenders, including technical data, specification required under the various sections of the tender. Any tender not supported by the information requested in this tender document is liable to be rejected.

### **3.12. Deviations from Original Tenders**

The contractor shall submit two (2) copies of any suggested deviations from the tender documents in the bid itself for consideration by the Department. These deviations if accepted shall constitute part of the contract, if approved by the Department

### **3.13. Space**

The drawing for installation of all the items shall be prepared by the successful bidder after examining the site conditions.

### 3.14. Payment Terms

| S. No. | Milestone                                                                                                                                                             | Payment                                                                                                                                                                                                                                                                                           |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | Supply and testing of all items as per BoQ for a location.                                                                                                            | After supply and testing of all the items for a location as per BoQ and acceptance by Officer-in-charge, <b>90%</b> of the item cost as per work order shall be released to contractor for that location.                                                                                         |
| 2.     | Installation and commissioning of the supplied items as per terms & conditions defined in this tender document and acceptance for that location by Officer-in-charge. | Balance <b>10%</b> of the item cost as per work order for that location along with <b>80%</b> of installation & commissioning charges as per work order for that location shall be released to contractor after submission of required documents / manuals as stipulated in this tender document. |
| 3.     | Final Acceptance of complete work by Officer-In-Charge at all locations and final handover to AMD                                                                     | Balance amount as per work order shall be released to contractor after submission of required documents / manuals as stipulated in this tender document.                                                                                                                                          |

### 3.15. Liquidated Damages

The firm has to produce minimum output as mentioned in the document, for the purpose of payments. The contractor has to produce a certificate duly signed to Officer-In-Charge in this regard, indicating the quantity and quality of work done. The penalty would be calculated as per the details given below -

| No. | Condition                                                                                                            | LD%   |
|-----|----------------------------------------------------------------------------------------------------------------------|-------|
| a.  | Delay up to one fourth period of the prescribed period/completion of work as per time schedule                       | 2.5%  |
| b.  | Delay exceeding one fourth but not exceeding half of the prescribed period/completion of work as per time schedule   | 5.0%  |
| c.  | Delay exceeding half but not exceeding three fourth of the prescribed period/completion of work as per time schedule | 7.5%  |
| d.  | Delay exceeding three fourth of the prescribed period/completion of work as per time schedule                        | 10.0% |

## 4. Terms and Conditions

- 4.1. Officer-in-charge for the work is Head, EDISAC, AMD, Hyderabad (Email ID: headedisac.amd@gov.in).
- 4.2. The bidder is required to quote for the complete work, though Department reserves the right to award the work in full or in part or even cancel the tender.
- 4.3. All the items shall conform to the requirements specified in the tender document. Where material requirements are not specified they shall conform to the applicable standards approved by the Department. All the items shall be new free from defects and first class in all respects. Parts shall be free from flaws and objectionable imperfections and shall be machined true in a workman like manner.
- 4.4. The contractor's bid must include everything required to make a complete working of the system whether specifically shown and specified or not, including all labour and material, transportation etc. necessary for the complete installation of everything described and provided and ready for AMD's use.
- 4.5. It shall be the responsibility of tenderer to check the suitability & site constraints for installing the system at site.
- 4.6. While execution of job/any activities, if any deficiency in safety/lack of safety or inadequate supervision is found, contractor is liable for compensation as per discretion of Officer-in-charge. It is the responsibility of the contractor to ensure adequate PPE is used by the firm labourers / technicians involved in the implementation of work for ensuring safety at site.
- 4.7. Any apparatus, appliance material and labour which may be necessary to complete the work in accordance with the intent or purpose of these specifications and as instructed by Officer-In-Charge for the execution of the project / system shall be furnished by the contractor without extra cost irrespective of specifically specified in and / or shown in the specifications, or not.
- 4.8. The contractor should bring the necessary equipment which is required for testing without any additional cost.
- 4.9. All problems should be resolved onsite and remote access for resolving the problems/installation/testing etc., is not permitted.
- 4.10. Firm should provide a single point of contact person for any type of issues. It is the responsibility of the firm for raising of tickets and following it up with OEM till the issues are resolved at AMD, Hyderabad and other locations of AMD mentioned in the tender document.
- 4.11. All the items supplied should support the existing network setup of AMD. It is the Firm's responsibility to understand the existing setup and interface the supplied products with the AMD setup.
- 4.12. The cost of any expenses including manpower, accommodation, travel and out of pocket expenses etc. required for attending the work at Hyderabad or any of the other locations of AMD will be borne by the firm only.
- 4.13. All the supplied products should support both IPv4 and IPv6.

- 4.14. **STRICT CONFIDENTIALITY OF THE NETWORK SECURITY AND WAN & LAN FACILITIES SHOULD BE ENSURED AND THE INFORMATION CANNOT BE DISCLOSED OR USED BY THE FIRM OR THEIR EMPLOYEES OR THEIR REPRESENTATIVES.**
- 4.15. The Firm should install, test, commission & configure the supplied devices/items and integrate with existing network components as per the requirements of AMD and instructions of Officer-In-charge.
- 4.16. All the required jobs related to successful completion of the work is to be done by the firm.
- 4.17. It is contractor's responsibility to interface the supplied items with the existing networks and equipment like Firewall systems & Video Conferencing systems, if required, for completion of the work.
- 4.18. It is contractor's responsibility to implement strong security measures in the LAN setup.
- 4.19. Contractor has to utilize maximum possible features of the items supplied and installed.
- 4.20. Configuration of security policies, Routing, ACL's, Port security, MAC binding on the Switches also need to be done by the contractor as per requirement.
- 4.21. **Onsite Support during warranty**
- a) The onsite warranty should be for all items as per the BoQ.
  - b) In case of breakdown of any component during the warranty the maximum down time allowed for repair of making the item functional is 8 Hrs at HQ and other locations except Shillong where the maximum downtime is 24 Hrs. A standby component should be provided within **8 Hours** (eight hours) from the time of break down in these locations except Shillong where it need to be provided within 72 Hrs. In case of any default, a penalty of **0.5%** per week of the component value will be levied for delay in response time for attending and rectification of faults beyond specified time & maximum penalty to be levied on account of warranty failure will be **5%** of the component value calculated during whole warrantee period and after that if there is any delay on the part of supplier, purchaser shall be entitled for encashment of PBBG bonds.
  - c) In case the contractor is unable to repair the component and suitable standby is not provided. AMD reserves the option of getting the systems repaired by any other authorized agency and cost of repair incurred with additional Rs 1000/- will be imposed on penalty.
  - d) During installation and testing, it is the responsibility of the vendor to create the configuration of Routing tables, Access list, Security polices, New Patches, latest IOS, troubleshooting on supplied Hardware, resolve connectivity issues, Interfacing, troubleshooting any new requirements of AMD with the existing components.
  - e) Non-availability of component due to obsolescence should not result in upgradation of systems or any upgradation if required for the system to be maintainable shall be at the cost of contractor.
  - f) The contractor has to provide warranty for all supplied components and also ensure the firmware updates during the period.

- g) Warranty of the supplied network components covers Safety checks, Rectification of damage or fault arising from normal operation as well as from aging e.g. by repair or replacing of module, sections, assemblies & components of LAN includes – system updation, software maintenance, and all its related works. The contractor should be competent enough to carry out above mentioned tasks.
- h) Warranty should include new original spares for proper functioning of all systems and sub-systems. If any part gives repeated problems i.e., 2 repairs in a maximum period of two-month time then it must be replaced immediately by the contractor with an original new one.
- i) If systems/subsystems are required to be taken out of office for repairing, then a stand-by system/subsystem of similar configuration and quality acceptable to AMD need to be provided on returnable basis. Contractor is responsible for the transportation and delivery of components/subcomponents and it should be repaired and returned to AMD within a period of three days after ensuring that its performance is satisfactory.
- j) The contractor should ensure that qualified network professionals only attend to the configuration on core switches and access switches and modify it as per requirement of the organization. It is the responsibility of the contractor to interface the supplied devices with other existing network / devices as per AMD requirement.
- k) If the contractor abandons/breaches the contract after commencement of work then the PBBG of the work shall be forfeited and legal action as deemed fit will be initiated against the contractor.
- l) All the other works that are necessary for successful and satisfactory completion of the work but not explicitly mentioned in the scope of work are to be carried out by the contractor at no extra cost to AMD.
- m) Replacement of irreparable components should be of similar or superior quality/make to that being replaced and compatible with the existing Network at AMD. **Any type of hard disk/storage will not be returned.**
- n) In case of any minor alteration in the network setup is required before commissioning of the setup, the firm has to do the same as per directions of officer-in-charge for this work.
- o) The contractor has to ensure during Onsite warranty period that all the supplied items are functioning smoothly.
- p) Cascading failure of supplied components in the network should be attended immediately to ensure network integrity / performance and the contractor should restore smooth functioning of the network.

4.22. **Risk & Cost Amount against Balance Work:** To be calculated as follows: -

$$\text{Risk \& Cost Amount} = [(A-B) + (A \times H/100)]$$

Where,

A = Value of Balance scope of Work (\*) as per rates of new contract

B = Value of Balance scope of Work (\*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

**4.23. Balance scope of work (in case of termination of contract):**

- a) Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.
- b) Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.
- c) Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.
- d) Substitute / extra items whose rates have already been approved would form part of contract quantities for this purpose.
- e) Substitute / extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.
- f) However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

**NOTE:** In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

**4.24. LD against delay in executed work in case of Termination of Contract:**

LD against delay in executed work shall be calculated in line tender terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- iii. Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e.  $T2 = [1 - (X/Y)] \times T1$
- v. LD shall be calculated in line with LD clause (Refer bid document) of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

**4.25. Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:**

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk & cost has been invoked shall be made from Dues available in the form of Bills payable to seller, SD, BGs against the same contract.

*In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.*

## **Manuals/Documents**

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

- i. Operating manual
- ii. Servicing & Maintenance manual
- iii. Spare parts list with source of supply and prices
- iv. Pre-installation requirements.
- v. Detailed network diagrams (including I/O port to Switch Port mapping)

## Section IV: Technical Specifications

## 1. Introduction

The LAN Upgrade has to be performed in the following 9 AMD Locations:

1. Headquarters at Begumpet, Hyderabad
2. Six Regional Centres
  - a. Northern Region (NR), New Delhi
  - b. Southern Region (SR), Bangalore
  - c. Eastern Region (ER), Jamshedpur (AKA: Tatanagar)
  - d. North Eastern Region (NER), Shillong
  - e. Western Region (WR), Jaipur
  - f. Central Region (CR), Nagpur
3. Section office (Thiruvananthapuram)
4. AMD Lab Stores near ECIL, Hyderabad.

**All the supplied active network components shall conform to the technical specification and certified by standard agencies of Govt. of India similar to BIS/TEC/STQC etc. UL, CE and FCC Certification is not required for PMA. However, they have to produce certificate from standard lab recognized/approved/ authorized by Govt. of India that their product is equivalent to UL, CE and FCC and meets all standard and specification of UL, CE and FCC.**

**All passive network components that are not specifically asked for certification should have quality standard applicable in India by Bureau of Indian Standards (BIS).**

### Detailed Technical Specifications of the network components:

#### 1. Core Switch Layer-3 Managed Switch (Type-1)

|                                                             |                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ports                                                       | Minimum <b>40</b> x 10G (upgradable to 25G) SFP+ ports                                                                                                                                                                                                                              |
| Type                                                        | 19-inch rack mountable switch with necessary mounting accessories                                                                                                                                                                                                                   |
| Switching Capacity                                          | Switch should support minimum 2000 Gbps switching fabric with minimum 720 MPPS forwarding rate                                                                                                                                                                                      |
| Performance                                                 | minimum 2K MAC Addresses and 100 VLANs.<br>minimum 1K ACLs, 4K Multicast and 4K IPv4, 4K IPv6 Routes.                                                                                                                                                                               |
| IEEE Ethernet Standards                                     | Switch should support MAC bridging, STP, Multiple Spanning Trees, RSTP, Port based network access control, link aggregation, 802.3x, 802.1p, 802.1Q.                                                                                                                                |
| Core Features                                               | Static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, Layer 2, Routed Access (RIP, OSPF – Up to 1000 routes), PBR, QoS, Strict priority queuing, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.                                            |
| Management                                                  | SSHv2, SNMPv2c, SNMPv3, IGMP, NETCONF / YANG / REST API or equivalent, Discovery, inventory, topology, software image, licensing, and configuration management & Patch Management, Health Dashboards – Network, Switch Health Monitoring                                            |
| Security Features equivalent to the following functionality | Port security, DHCP snooping or equivalent, spanning tree root guard, IPv6 First Hop Security or equivalent protection, ARP Inspection (or similar security feature which validates ARP packets and prevents attacks such as MITM, IPv6 First Hop Security or equivalent protection |

|                                   |                                                                                                                                      |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| IPv6                              | IPv6 support in hardware, providing wire rate forwarding for IPv6 network                                                            |
| Visibility and traffic monitoring | sflow/jflow/netFlow entries.                                                                                                         |
| Network segmentation              | VXLAN, EVPN                                                                                                                          |
| Automation                        | NETCONF / YANG / REST API or equivalent, RESTCONF                                                                                    |
| Telemetry and visibility          | SPAN, RSPAN or equivalent                                                                                                            |
| Power supply                      | Dual hot swappable redundant internal power supplies.<br>Input Voltage range $230 \pm 10\%$ VAC @ 50 Hz $\pm 3\%$ with power chords. |

## 2. Core Switch Layer-3 Managed Switches (Type-2)

|                                                             |                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ports                                                       | Minimum <b>24</b> x 10G SFP+ ports                                                                                                                                                                                                                                                                                           |
| Type                                                        | 19-inch rack mountable switch with necessary mounting accessories                                                                                                                                                                                                                                                            |
| Switching Capacity                                          | Switch should support minimum 480 Gbps switching fabric with minimum 360 MPPS forwarding rate.                                                                                                                                                                                                                               |
| Performance                                                 | minimum 2K MAC Addresses and 100 VLANs.<br>minimum 1K ACLs, 4K Multicast and 4K IPv4, 4K IPv6 Routes.                                                                                                                                                                                                                        |
| IEEE Ethernet Standards                                     | Switch should support MAC bridging, STP, Multiple Spanning Trees, RSTP, Port based network access control, link aggregation, 802.3x, 802.1p, 802.1Q.                                                                                                                                                                         |
| Core Features                                               | Static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, Layer 2, Routed Access (RIP, OSPF – Up to 1000 routes), PBR, QoS, Strict priority queuing, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.                                                                                     |
| Management                                                  | SSHv2, SNMPv2c, SNMPv3, IGMP, NETCONF / YANG / REST API or equivalent, Discovery, inventory, topology, software image, licensing, and configuration management & Patch Management, Health Dashboards – Network, Switch Health Monitoring                                                                                     |
| Security Features equivalent to the following functionality | Port security, DHCP snooping or equivalent, spanning tree root guard, IPv6 First Hop Security or equivalent protection, ARP Inspection or similar security feature which validates ARP packets and prevents attacks such as MITM, IPv6 First Hop Security or equivalent protection, secure boot with authentic signed images |
| IPv6                                                        | IPv6 support in hardware, providing wire rate forwarding for IPv6 network                                                                                                                                                                                                                                                    |
| Visibility and traffic monitoring                           | sflow/jflow/netFlow entries.                                                                                                                                                                                                                                                                                                 |
| Network segmentation                                        | VXLAN, EVPN                                                                                                                                                                                                                                                                                                                  |
| Automation                                                  | NETCONF / YANG / REST API or equivalent, RESTCONF                                                                                                                                                                                                                                                                            |
| Telemetry and visibility                                    | SPAN, RSPAN or equivalent                                                                                                                                                                                                                                                                                                    |
| Power supply                                                | Dual hot swappable redundant internal power supplies.<br>Input Voltage range $230 \pm 10\%$ VAC @ 50 Hz $\pm 3\%$ with power chords                                                                                                                                                                                          |

## 3. Core Switch Layer-3 Managed Switches (Type-3)

|                    |                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------|
| Ports              | Minimum <b>12</b> x 10G SFP+ ports                                                             |
| Type               | 19-inch rack mountable switch with necessary mounting accessories                              |
| Switching Capacity | Switch should support minimum 240 Gbps switching fabric with minimum 160 Mpps forwarding rate. |

|                                                             |                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performance                                                 | minimum 2K MAC Addresses and 100 VLANs.<br>minimum 1K ACLs, 4K Multicast and 4K IPv4, 4K IPv6 Routes.                                                                                                                                                                              |
| IEEE Ethernet Standards                                     | Switch should support MAC bridging, STP, Multiple Spanning Trees, RSTP, Port based network access control, link aggregation, 802.3x, 802.1p, 802.1Q.                                                                                                                               |
| Core Features                                               | Static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, Layer 2, Routed Access (RIP, OSPF – Up to 1000 routes), PBR, QoS, Strict priority queuing, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.                                           |
| Management                                                  | SSHv2, SNMPv2c, SNMPv3, IGMP, NETCONF / YANG / REST API or equivalent, Discovery, inventory, topology, software image, licensing, and configuration management & Patch Management, Health Dashboards – Network, Switch Health Monitoring                                           |
| Security Features equivalent to the following functionality | Port security, DHCP snooping or equivalent, spanning tree root guard, IPv6 First Hop Security or equivalent protection, ARP Inspection or similar security feature which validates ARP packets and prevents attacks such as MITM, IPv6 First Hop Security or equivalent protection |
| IPv6                                                        | IPv6 support in hardware, providing wire rate forwarding for IPv6 network                                                                                                                                                                                                          |
| Visibility and traffic monitoring                           | sflow/jflow/netFlow entries.                                                                                                                                                                                                                                                       |
| Network segmentation                                        | VXLAN, EVPN                                                                                                                                                                                                                                                                        |
| Automation                                                  | NETCONF / YANG / REST API or equivalent, RESTCONF                                                                                                                                                                                                                                  |
| Telemetry and visibility                                    | SPAN, RSPAN or equivalent                                                                                                                                                                                                                                                          |
| Power supply                                                | Dual hot swappable redundant internal power supplies.<br>Input Voltage range 230 ± 10% VAC @ 50 Hz ± 3% with power chords.                                                                                                                                                         |

#### 4. Access Switch: Layer-2 Managed Switch (Type-1)

|                         |                                                                                                                                                                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ports                   | a) Min. <b>24</b> x 10/100/1000BASE-T ports<br>b) Min. <b>2</b> x 10G SFP+ ports                                                                                                                                                                 |
| Type                    | 1RU rack mountable with necessary mounting accessories                                                                                                                                                                                           |
| Switching Capacity      | Switch should support minimum 88 Gbps switching Capacity with minimum 90 Mpps forwarding rate.                                                                                                                                                   |
| Performance             | minimum 8K MAC Addresses, minimum 100 active VLANs.<br>IPv4 routing entries: 1500, IPv6 routing entries: 750, Multicast routing scale: 500, ACL scale entries: 750, VLAN IDs: 512, Jumbo frames: 9198 Bytes                                      |
| Features                | IPv4 and IPv6 ACLs and Dynamic VLAN assignment, Virtual Networks, VTP/MVRP or equivalent, strict priority queuing                                                                                                                                |
| IEEE Ethernet Standards | Switch should support MAC bridging, STP, Multiple Spanning Trees, RSTP, Port based network access control, link aggregation, energy efficient ethernet, autonegotiation, 802.1x, 802.1ax, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z |
| Basic L3 Functionality  | Support for Static routing from Day1                                                                                                                                                                                                             |
| Management              | One dedicated ethernet management port and a separate console port.<br>SSHv2, SNMPv2c, SNMPv3, support for AAA like RADIUS/TACACS etc.                                                                                                           |

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Security Features equivalent to the following functionality | Port security, support for Layer 2 frame security, authenticity/confidentiality, DHCP snooping or equivalent, ARP Inspection(or similar security feature which validates ARP packets and prevents attacks such as MITM, IP Source guard or equivalent, BPDU Guard, spanning tree root guard, IPv6 Binding Integrity Guard / source guard or equivalent, IPv6 Snooping or equivalent, IPv6 RA Guard or equivalent, IPv6 DHCP Guard or equivalent, IPv6 Neighbour Discovery Inspection or equivalent, IPv6 Source Guard on hardware or equivalent |
| Automation                                                  | NETCONF / YANG / REST API or equivalent, RESTCONF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Visibility and traffic monitoring                           | netFlow/sflow/jflow entries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power supply                                                | Power supply with Input Voltage range $230 \pm 10\%$ VAC @ 50 Hz $\pm 3\%$ with power chord.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Redundant Power supply                                      | Support for dual redundant power supplies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

#### 5. Access Switch: Layer-2 Managed Switch (Type-2)

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ports                                                       | a) Min. <b>12</b> x 10/100/1000BASE-T ports<br>b) Min. <b>2</b> x 10G SFP+ ports                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Type                                                        | 1RU rack mountable with necessary mounting accessories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Switching Capacity                                          | Switch should support minimum 64 Gbps switching Capacity with minimum 50 Mpps of forwarding rate.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Performance                                                 | minimum 8K MAC Addresses, minimum 100 active VLANs.<br>IPv4 routing entries: 1500, IPv6 routing entries: 750, Multicast routing scale: 500, ACL scale entries: 750, VLAN IDs: 512, Jumbo frames: 9198 Bytes                                                                                                                                                                                                                                                                                                                                     |
| Features                                                    | IPv4 and IPv6 ACLs and Dynamic VLAN assignment, Virtual Networks, VTP/ MVRP or equivalent, strict priority queuing                                                                                                                                                                                                                                                                                                                                                                                                                              |
| IEEE Ethernet Standards                                     | Switch should support MAC bridging, STP, Multiple Spanning Trees, RSTP, Port based network access control, link aggregation, energy efficient ethernet, autonegotiation, 802.1x, 802.1ax, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z                                                                                                                                                                                                                                                                                                |
| Basic L3 Functionality                                      | Support for Static routing from Day1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Management                                                  | One dedicated ethernet management port and a separate console port.<br>SSHv2, SNMPv2c, SNMPv3.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Security Features equivalent to the following functionality | Port security, support for Layer 2 frame security, authenticity/confidentiality, DHCP snooping or equivalent, ARP Inspection or similar security feature which validates ARP packets and prevents attacks such as MITM, IP Source guard or equivalent, BPDU Guard, Spanning tree root guard, IPv6 Binding Integrity Guard / source guard or equivalent, IPv6 Snooping or equivalent, IPv6 RA Guard or equivalent, IPv6 DHCP Guard or equivalent, IPv6 Neighbour Discovery Inspection or equivalent, IPv6 Source Guard on hardware or equivalent |
| Automation                                                  | NETCONF / YANG / REST API or equivalent, RESTCONF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Visibility and traffic monitoring                           | netFlow/sflow/jflow entries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power supply                                                | Power supply with Input Voltage range $230 \pm 10\%$ VAC @ 50 Hz $\pm 3\%$ with power chord.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## 6. 10G SFP+ SR module

|                                                                           |
|---------------------------------------------------------------------------|
| Type: SFP+ 10G SR                                                         |
| Connector: LC, Multi Mode                                                 |
| Wavelength:- 850nm                                                        |
| Transmit and Receive Wavelength (nm) :- 840 to 860.                       |
| The supplied transceiver module and switches should be from the same OEM. |

## 7. 1000BASE-T SFP Copper transceiver module

|                                                                                              |
|----------------------------------------------------------------------------------------------|
| Connector Type: copper                                                                       |
| Speed: 1Gbps                                                                                 |
| Cabling Type: 1000Base-T                                                                     |
| Interfaces: 1 x Ethernet 1000Base-T - RJ-45                                                  |
| Features: Full duplex capability, auto-negotiation, auto-uplink (auto MDI/MDI-X)             |
| Compliant Standards: CISPR 22 Class A, EN55024, EN55022 Class A, FCC Part 15 A, VCCI Class A |
| The supplied transceiver module and switches should be from the same OEM.                    |

## 8. 42U Floor Mounted Rack

|                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic Frame: Multi hollow extrusion Aluminium profile frame                                                                                                                                                                                             |
| Size: Floor stand with single side panels 42U - 800W x 1200D                                                                                                                                                                                            |
| Construction : Modular Constuction of the rack made of 4 vertical , 4 horizontal & 4 depth extruded aluminum alloy multi hollow profiles bolted and joined together with Links and Corner Block. 2/3 pairs of support channel to equate the load evenly |
| Top & Bottom Cover: Bolted to Frame with Cable entry cut outs                                                                                                                                                                                           |
| Front Door: Lockable perforated Steel Door with ventilation                                                                                                                                                                                             |
| Rear Door: Lockable Steel Door with square ventilation                                                                                                                                                                                                  |
| Lock for doors: Cam Lock/ 3 point lock                                                                                                                                                                                                                  |
| 19" Mounting Angle: 4 No Adjustable. 19" verticals with Punched 9.5mm Squarer Hole and Universal 12.7 mm-15.875 mm- 15.875 mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space.                            |
| Standard Finish: Epoxy polyester Powder coated<br>60-80 micron thickness                                                                                                                                                                                |
| Standard Mounting: Caster wheels (2 with Brake & 2 without Brake) and Levellers OR Plinth                                                                                                                                                               |
| Static Load: Upto 1200 KG.                                                                                                                                                                                                                              |
| Reducing channel for 800mm width racks: 2 pairs of 100mm Reducing cable channel to have more space for cable management and to maintain 19" for equipment mounting                                                                                      |
| Accessories: Dual vertical Power distribution units (with minimum 12x 6/15A sockets per PDU), Cable manager, Hardware packet, Monitor Shelf, Cantilever Shelf, Blank Panels, Support angles, Keyboard tray, Metal cable channel                         |
| Equipment cooling: 4 Fan Mount provision on top cover                                                                                                                                                                                                   |
| Corrosion Resistance: Salt spray test according to ISO 9227 (NSS test) and IEC EN 60068-2-11 (Ka test) for 168 hours: degree of Rusting Ri1 according to ISO 4628-3, propagation ≤1 mm according to ISO 4628-8.                                         |
| Rack Standards: IS 9606-1980, UL 2416, IEC EN 60529, IEC EN 62262, ISO 9001:2008, ISO14001: 2015                                                                                                                                                        |

|                                                                                              |
|----------------------------------------------------------------------------------------------|
| Degree of Protection: IP 20 according to IEC 60529:2013, IK08 according to IEC EN 62262:2002 |
|----------------------------------------------------------------------------------------------|

## 9. 15U Rack

|                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size: 600W x 500D                                                                                                                                                                                                            |
| Form factor: 15U                                                                                                                                                                                                             |
| Construction: Clear 'U' usable space, fan or extra cables should not occupy usable space                                                                                                                                     |
| Basic Frame : CRCA                                                                                                                                                                                                           |
| Assembly: Assembled / SKD                                                                                                                                                                                                    |
| Top & Bottom Cover: Integrated to frame. Cable entry cut outs                                                                                                                                                                |
| Front Door: Lockable Toughened Glass Door                                                                                                                                                                                    |
| Rear side: Wall Mounting brackets                                                                                                                                                                                            |
| Side Panels: 2 side panels openable with slam latch                                                                                                                                                                          |
| 19" Mounting Angle: 4 No Adjustable. 19" verticals with Punched 9.5mm Squarer Hole and Universal 12.7 mm-15.875 mm- 15.875 mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space. |
| Std. Equipment Mounting: 9.5mm Sq. Slots and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern                                                                                                                     |
| Static Load: Upto 50Kgs                                                                                                                                                                                                      |
| Standard Finish: Epoxy polyester Powder coated<br>60-80 micron thickness                                                                                                                                                     |
| Accessories: Horizontal power distribution unit with minimum 6x 6A Sockets, Cable manager, Hardware packet and Cantilever Shelf                                                                                              |
| Equipment cooling: 1 or 2 Fan Mount provision on top cover                                                                                                                                                                   |
| Rack Standards: UL 2416, ISO 9001:2008, ISO14001: 2015                                                                                                                                                                       |

## 10. 12U Rack

|                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size: 600W x 500D                                                                                                                                                                                                            |
| Form factor: 12U                                                                                                                                                                                                             |
| Construction: Clear 'U' usable space, fan or extra cables should not occupy usable space                                                                                                                                     |
| Basic Frame : CRCA                                                                                                                                                                                                           |
| Assembly: Assembled / SKD                                                                                                                                                                                                    |
| Top & Bottom Cover: Integrated to frame. Cable entry cut outs                                                                                                                                                                |
| Front Door: Lockable Toughened Glass Door                                                                                                                                                                                    |
| Rear side: Wall Mounting brackets                                                                                                                                                                                            |
| Side Panels: 2 side panels openable with slam latch                                                                                                                                                                          |
| 19" Mounting Angle: 4 No Adjustable. 19" verticals with Punched 9.5mm Squarer Hole and Universal 12.7 mm-15.875 mm- 15.875 mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space. |
| Std. Equipment Mounting: 9.5mm Sq. Slots and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern                                                                                                                     |
| Static Load: Upto 50Kgs                                                                                                                                                                                                      |
| Standard Finish: Epoxy polyester Powder coated<br>60-80 micron thickness                                                                                                                                                     |
| Accessories: Horizontal power distribution unit with minimum 6x 6A Sockets, Cable manager, Hardware packet and Cantilever Shelf                                                                                              |

|                                                            |
|------------------------------------------------------------|
| Equipment cooling: 1 or 2 Fan Mount provision on top cover |
| Rack Standards: UL 2416, ISO 9001:2008, ISO14001: 2015     |

## 11. 9U Rack

|                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size: 600W x 500D                                                                                                                                                                                                            |
| Form factor: 9U                                                                                                                                                                                                              |
| Construction: Clear 'U' usable space, fan or extra cables should not occupy usable space                                                                                                                                     |
| Basic Frame : CRCA                                                                                                                                                                                                           |
| Assembly: Assembled / SKD                                                                                                                                                                                                    |
| Top & Bottom Cover: Integrated to frame. Cable entry cut outs                                                                                                                                                                |
| Front Door: Lockable Toughened Glass Door                                                                                                                                                                                    |
| Rear side: Wall Mounting brackets                                                                                                                                                                                            |
| Side Panels: 2 side panels openable with slam latch                                                                                                                                                                          |
| 19" Mounting Angle: 4 No Adjustable. 19" verticals with Punched 9.5mm Squarer Hole and Universal 12.7 mm-15.875 mm- 15.875 mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space. |
| Std. Equipment Mounting: 9.5mm Sq. Slots and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern                                                                                                                     |
| Static Load: Upto 50Kgs                                                                                                                                                                                                      |
| Standard Finish: Epoxy polyester Powder coated<br>60-80 micron thickness                                                                                                                                                     |
| Accessories: Horizontal power distribution unit with minimum 6x 6A Sockets, Cable manager, Hardware packet and Cantilever Shelf                                                                                              |
| Equipment cooling: 1 or 2 Fan Mount provision on top cover                                                                                                                                                                   |
| Rack Standards: UL 2416, ISO 9001:2008, ISO14001: 2015                                                                                                                                                                       |

## 12. HDPE Pipe

- Laying of HDPE pipe has to be carried out where ever required
- The fixing of the HDPE pipe must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of HDPE pipe laying and termination with proper numbering and labelling at both ends must be furnished.

|                                                                 |
|-----------------------------------------------------------------|
| ISI Standard                                                    |
| Density g/CM <sup>3</sup> : 0.941 - 0.955                       |
| Melt Index g/10 min Condition E :0.05 - 0.50                    |
| Tensile strength at yield (psi) :3000 min.                      |
| Environmental stress Crack Resistance Condition B F20 : 96 min. |
| Brittleness Temperature Celsius :750C                           |

## 13. 1-inch PVC Pipe

- Laying of ISI certified pipe/duct/conduit has to be carried out where ever required
- The fixing of the casing must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of conduit laying and termination with proper numbering and labelling at both ends must be furnished.

|                            |
|----------------------------|
| ISI Standard               |
| size: 1 Inch               |
| Material: PVC              |
| Outer diameter: 1.3 Inches |
| Shape: round               |

#### 14. 2-inch PVC Pipe

- Laying of ISI certified pipe/duct/conduit has to be carried out where ever required
- The fixing of the casing must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of conduit laying and termination with proper numbering and labelling at both ends must be furnished.

|                            |
|----------------------------|
| ISI Standard               |
| size: 2 Inch               |
| Material: PVC              |
| Outer diameter: 2.3 Inches |
| Shape: round               |

#### 15. 1 inch PVC Casing

- Laying of ISI certified casing has to be carried out where ever required
- The fixing of the casing must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of laying and termination with proper numbering and labelling at both ends must be furnished.

|               |
|---------------|
| ISI Standard  |
| 1-Inch        |
| 25 mm x 16 mm |
| FR PVC        |
| 2 Mtr / Piece |

#### 16. 2 inch PVC Casing

- Laying of ISI certified casing has to be carried out where ever required
- The fixing of the casing must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of laying and termination with proper numbering and labelling at both ends must be furnished.

|               |
|---------------|
| ISI Standard  |
| 2-Inch        |
| 25 mm x 16 mm |
| FR PVC        |
| 2 Mtr / Piece |

#### 17. CAT 6 UTP Copper cable

- CAT 6 Ethernet cables have to be laid through ISI certified PVC pipe/case on capping. Outlet with back box, panel etc. has to be installed as per EIA/TIA cabling standards. The fixing of the casing must be carried out required accessories i.e. right-angle elbow, joints screws etc. All cable must be terminated with properly labelled ferules.
- Installation of data cables from one system to other system will be carried out by contractor.
- Ethernet cable installation will be on wall or underground as per site requirements.
- Detailed drawing of cable laying and cable termination with proper numbering and labelling at both ends must be furnished.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.

|                                                                                                            |
|------------------------------------------------------------------------------------------------------------|
| Data transmission frequencies of up to 250 MHz or better                                                   |
| Standardization: ISO/IEC 11801 ed. 2.2; IEC 61156-5 2nd ed.; EN 50173-1; EN 50288-6-1; TIA 568-B.2.1; PVC. |
| IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;<br>IEEE 802.5 16 MB; ISDN; TPDDI; ATM                         |
| Conductor : bare copper wire                                                                               |
| No of conductor : 8                                                                                        |
| Insulation: Polyethylene                                                                                   |
| Twisting: 2 cores to the pair                                                                              |
| Cable lay up: 4 pairs to the core                                                                          |
| Cu cable shielding : U/UTP                                                                                 |
| Stranding : 4P                                                                                             |
| Cable jacket material: PVC                                                                                 |
| Cable jacket characteristics: cable, metal-free ; flame-retardant                                          |
| Temperature range : during operation -20°C+ 60°C, during installation 0°C+ 50°C.                           |

#### 18. CAT 6 STP cable

- CAT 6 Ethernet cables have to be laid through ISI certified PVC pipe/case on capping. Outlet with back box, panel etc. has to be installed as per EIA/TIA cabling standards. The fixing of the casing must be carried out required accessories i.e. right-angle elbow, joints screws etc. All cable must be terminated with properly labelled ferules.
- Installation of data cables from one system to other system will be carried out by contractor.
- Ethernet cable installation will be on wall or underground as per site requirements.
- Detailed drawing of cable laying and cable termination with proper numbering and labelling at both ends must be furnished.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.

|                                                      |
|------------------------------------------------------|
| Solid four pair 23 AWG CAT 6                         |
| Shielded twisted pair CAT 6 tested till 350 MHz      |
| Individual pair separated by PE former               |
| must meet EIA/TIA 568-B2-1 Category 6 specifications |
| temperature rating 75 °C                             |

#### 19. Cat 6 UTP I/Os (UserSide )

|                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connection Module with Snap in adapter Cat.6, 1xRJ45/u, 10xMechanical locking of the snap-in adapter by means of the coding clip                                                                                                                                                                                                                                                                   |
| Standardization: RJ45 Cat.6 connection module, unshielded<br>Snap-in adapter Dust cover Cable tie Installation instructions                                                                                                                                                                                                                                                                        |
| Standardization: IEC 60603-7: Electrical Characteristics of the Telecommunication Outlets ISO/IEC 11801, Second Edition: September 2002 EN 50173-1: May 2007                                                                                                                                                                                                                                       |
| Standardization: Compliant with Category 6 requirements of the standards ISO/IEC 11801:2002, EN 50173-1: May 2007,<br>DIN-EN 50173-1: Dec. 2007 as well as ANSI/TIA/EIA 568-B.2-1, de-embedded tested in acc. with IEC 60603-7-4, interoperable and backwards compatible with Cat.5e and Cat.5.                                                                                                    |
| Standardization: PoE and PoE+ compatible according to IEC 60512-99-001                                                                                                                                                                                                                                                                                                                             |
| Standardization: 10GBase-T applications in acc. with IEEE 802.3an up to 500 MHz and 55 m                                                                                                                                                                                                                                                                                                           |
| Termination: PCB-free and tool-free Easy-Lock connection of installation cables AWG 24 - 22 (0.5 mm - 0.65 mm) and flexible cables AWG 26/7 - AWG 22/7. Parallel pair termination without crossover in acc. with EIA/TIA 568-A/B, gold-plated bronze contacts for >1000 mating cycles, IDC contacts with singlewire strain relief and >20 insertion cycles, contact resistance 1000 Veff. Halogen- |
| Nomenclature: IEC 60603-7: Electrical Characteristics of the Telecommunication Components ISO/IEC 11801, Ed. 2.2: June 2011 EN50173-1: May 2011                                                                                                                                                                                                                                                    |
| Application area: Mounting                                                                                                                                                                                                                                                                                                                                                                         |
| Connector type: RJ45                                                                                                                                                                                                                                                                                                                                                                               |
| Category connector: CAT6                                                                                                                                                                                                                                                                                                                                                                           |
| Contacts: gold-plated bronze contacts for >1000 mating cycles, IDC contacts with singlewire                                                                                                                                                                                                                                                                                                        |
| Compatible: RJ standard plugs (RJ11, RJ12, RJ45)                                                                                                                                                                                                                                                                                                                                                   |

|                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Holder for connector                                                                                                                                                                                             |
| Dimensions: 18.2 x 22.7 x 41.3 mm                                                                                                                                                                                |
| Wiring diagram: EIA/TIA 568A / EIA/TIA 568B                                                                                                                                                                      |
| Poles: 8                                                                                                                                                                                                         |
| Connection Module: plastic: PC, UL 94 V-0 ( Halogen Free )                                                                                                                                                       |
| Snap in Adapter material: polycarbonate                                                                                                                                                                          |
| Coding clip material: polypropylene                                                                                                                                                                              |
| Fire classification snap-in adapter: UL94V-0                                                                                                                                                                     |
| Fire classification coding clip: UL94HB                                                                                                                                                                          |
| Number of RJ45 Jacks: 1                                                                                                                                                                                          |
| Operating temperature range: -10°C to 60°C                                                                                                                                                                       |
| Storage temperature range: -40°C to 70°C                                                                                                                                                                         |
| Humidity: 95% (non-condensing)                                                                                                                                                                                   |
| Number if IDC* connections: 8 / jack                                                                                                                                                                             |
| IDC Contact material: CuSn, tin-plated                                                                                                                                                                           |
| Wire strain relief : Through labyrinth in IDC block                                                                                                                                                              |
| Cable strain relief: Through cable tie                                                                                                                                                                           |
| Relevant standard: Typical value (at 20°C)                                                                                                                                                                       |
| Face Plate -Single/Dual (BS-86x86mm)                                                                                                                                                                             |
| Faceplate should be 86x86 mm for 1/2 RJ45 ports, including fastening screws and Label strips. Suitable for RJ45 connection modules, connection module ISDN 2xRJ45 and fiber optic connectors with support plates |
| Compliant with Standards: Halogen-free, in accordance with DIN/VDE 0472/815                                                                                                                                      |
| Face Plate Type & Material:<br>Material: PC + ABS<br>Contact resistance typical: Flush-mounting (FM)<br>Capacity (ports): 2 x 1<br>Assembly: Empty<br>Dimensions : 86 x 86 mm                                    |

## 20. 19" 1U Patch Panel - Unloaded & Rear cable manager

|                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Straight Patch Panel (Unloaded): Patch panel with integrated cable tie shelf, 19" fastening kit, labeling field, accepting the snap-in type color coding clips in 8 colors. 19" 1U straight, (empty/unloaded) patch panel with a capacity of up to 24 Snap-in RJ45 connection modules shielded or unshielded or FO adapters. |
| Compliant with Standards: UL Listed                                                                                                                                                                                                                                                                                          |
| Patch Panel Type & Material: • Fastening (inch) : 19" • Height units (U): 1U, Straight, integrated cable tie shelf • Rack mounting version: sub-rack • Capacity (ports): 24 • Holder for connector / module: Snap-in frame • Assembly: empty • Material: steel: DC01 (1.0330), 1.5 mm                                        |

## 21. Cat 6 UTP I/Os (Patch Panel Side )

|                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------|
| Connection Module with Snap in adapter Cat.6, 1xRJ45/u, 10x Mechanical locking of the snap-in adapter by means of the coding clip |
| Standardisation: RJ45 Cat.6 connection module, unshielded, Snap-in adapter, Dust cover, Cable tie, Installation instructions      |

|                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standardisation: IEC 60603-7: Electrical Characteristics of the Telecommunication Outlets<br>ISO/IEC 11801, Second Edition: September 2002,<br>EN 50173-1: May 2007                                                                                                                                                                                                                               |
| Standardisation: Compliant with Category 6 requirements of the standards ISO/IEC 11801:2002, EN 50173-1: May 2007, DIN-EN 50173-1: Dec. 2007 as well as ANSI/TIA/EIA 568-B.2-1, de-embedded tested in acc. with IEC 60603-7-4, interoperable and backwards compatible with Cat.5e and Cat.5.                                                                                                      |
| Standardisation: PoE and PoE+ compatible according to IEC 60512-99-001                                                                                                                                                                                                                                                                                                                            |
| Standardisation: 10GBase-T applications in acc. with IEEE 802.3an up to 500 MHz and 55 m                                                                                                                                                                                                                                                                                                          |
| Termination: PCB-free and tool-free Easy-Lock connection of installation cables AWG 24 - 22 (0.5 mm - 0.65 mm) and flexible cables AWG 26/7 -AWG 22/7. Parallel pair termination without crossover in acc. with EIA/TIA 568-A/B, gold-plated bronze contacts for >1000 mating cycles, IDC contacts with singlewire strain relief and >20 insertion cycles, contact resistance 1000 Veff. Halogen- |
| Nomenclature: IEC 60603-7: Electrical Characteristics of the Telecommunication Components ISO/IEC 11801, Ed. 2.2: June 2011 EN50173-1: May 2011                                                                                                                                                                                                                                                   |
| Application area: Mounting                                                                                                                                                                                                                                                                                                                                                                        |
| Connector type: RJ45                                                                                                                                                                                                                                                                                                                                                                              |
| Category connector: CAT6                                                                                                                                                                                                                                                                                                                                                                          |
| Contacts:gold-plated bronze contacts for >1000 mating cycles, IDC contacts with singlewire                                                                                                                                                                                                                                                                                                        |
| Compatible: RJ standard plugs (RJ11, RJ12, RJ45)                                                                                                                                                                                                                                                                                                                                                  |
| Holder for connector: Snap IN                                                                                                                                                                                                                                                                                                                                                                     |
| Wiring diagram: EIA/TIA 568A / EIA/TIA 568B                                                                                                                                                                                                                                                                                                                                                       |
| Poles: 8                                                                                                                                                                                                                                                                                                                                                                                          |
| Connection Module: plastic: PC, UL 94 V-0 ( Halogen Free )                                                                                                                                                                                                                                                                                                                                        |
| Snap in Adapter material: polycarbonate                                                                                                                                                                                                                                                                                                                                                           |
| Coding clip material: polypropylene                                                                                                                                                                                                                                                                                                                                                               |
| Fire classification snap-in adapter: UL94V-0                                                                                                                                                                                                                                                                                                                                                      |
| Fire classification coding clip: UL94HB                                                                                                                                                                                                                                                                                                                                                           |
| Number of RJ45 Jacks: 1                                                                                                                                                                                                                                                                                                                                                                           |
| Operating temperature range: -10°C to 60°C                                                                                                                                                                                                                                                                                                                                                        |
| Storage temperature range: -40°C to 70°C                                                                                                                                                                                                                                                                                                                                                          |
| Humidity: 95% (non-condensing)                                                                                                                                                                                                                                                                                                                                                                    |
| Contact Material: CuSn                                                                                                                                                                                                                                                                                                                                                                            |
| Contact Surface: >0,76 µm gold over >1,2 µm nickel                                                                                                                                                                                                                                                                                                                                                |
| Housing material : Polycarbonate (UL-94-V0)                                                                                                                                                                                                                                                                                                                                                       |
| Number if IDC* connections: 8 / jack                                                                                                                                                                                                                                                                                                                                                              |
| IDC Contact material: CuSn, tin-plated                                                                                                                                                                                                                                                                                                                                                            |
| Wire strain relief: Through labyrinth in IDC block                                                                                                                                                                                                                                                                                                                                                |
| Cable strain relief: Through cable tie                                                                                                                                                                                                                                                                                                                                                            |
| Mating cycles min: ( Standard Value ) > 750<br>(Relevant standard ) ISO/IEC 11801 2nd Ed.<br>(Typical value (at 20°C) > 1000                                                                                                                                                                                                                                                                      |
| Insertion cycles installation cables: ( Standard Value ) > 20<br>(Relevant standard ) ISO/IEC 11801 2nd Ed.<br>(Typical value (at 20°C) > 20                                                                                                                                                                                                                                                      |
| Relevant standard: Typical value (at 20°C)                                                                                                                                                                                                                                                                                                                                                        |

## 22. CAT 6 UTP Patch Cords

|                                                                                               |
|-----------------------------------------------------------------------------------------------|
| Patch Cord CAT 6, U/UTP, 4P, PVC, RJ45/u-RJ45/u                                               |
| Standardization: Compliant with CAT 6, Class E (250 MHz) requirements: ISO/IEC 11801 ed. 2.2. |
| Standardization: Compliant with CAT 6 component standards IEC 60603-7-4 and 60603-7-5.        |
| Standardization: Fulfilled the standard IEC 61935-2:2010.                                     |
| Cable identification: U/UTP                                                                   |
| Outer jacket: PVC                                                                             |
| Connector Type: RJ45 CAT6                                                                     |
| Conductor diameter copper strand: AWG24/7 ( Stranding 4x2 )                                   |
| Outer diameter: max. 6.0 mm                                                                   |
| Conductor type: stranded conductor                                                            |
| Frequencies: 250Mhz                                                                           |
| Strain relief: TIA/EIA-568-B.1-1                                                              |
| Plug Housing: UL 94-V0 polycarbonate                                                          |
| Contacts: Phosphor bronze (CuSn6)                                                             |
| Contact Plating: 0,7 µm selective gold plate                                                  |
| Shielding: Tin-plated brass                                                                   |
| Current Rating: 1.5A (maximum)@ 25°c                                                          |
| Voltage Rating: 150 VAC (maximum)                                                             |
| Plug Tolerances and Dimensions: Compliant IEC 60603-7                                         |
| Operating Temperature: -10°c to -60°c                                                         |

## 23. 6 core OM3, Multimode, CLT, Gel filled, ECCS Armored Outdoor Fiber cable

|                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OM3, Multimode, CLT, Gel filled, ECCS Armored Outdoor Fiber cable, LSZH<br>The outdoor cable for applications in harsh conditions.<br>Containing a central gel-filled loose tube of a diameter of $2/2.8 \pm 0.1$ mm for 2 - 16 fibers or 3.5 mm for 18 - 24 fibers. The outer sheath is made of a 0.155 mm corrugated steel armor plus a 1.8 mm LSZH sheath. |
| Compliant with Standards: ISO/IEC 11801:2002; IEC 60794-1-2 E1; IEC 60794-1-2 E11; IEC 60794-1-2 E3; IEC 60794-1-2 F1; IEC 60794-1-2 E4; IEC 60794-1-2 E7; IEC 60794-1-2 E10; ITU Recommendation G.651 TIA/EIA-492AA IEC 60793-1-XX: 2002EN 60793-1-XX: 2002FOTP-220 (DMD)                                                                                    |
| Fiber class: Multimode (OM3)                                                                                                                                                                                                                                                                                                                                  |
| Fiber / conductor diameter: G50/125µm                                                                                                                                                                                                                                                                                                                         |
| Number of fibers: 6                                                                                                                                                                                                                                                                                                                                           |
| Inner tube: PBT –Loose tube with Gel filled                                                                                                                                                                                                                                                                                                                   |
| Cable protection: ECCS tape                                                                                                                                                                                                                                                                                                                                   |
| Cable jacket material: HDPE                                                                                                                                                                                                                                                                                                                                   |
| Cable jacket characteristics: water-tight                                                                                                                                                                                                                                                                                                                     |
| Cable overall diameter: $8.5 \pm 0.5$ mm                                                                                                                                                                                                                                                                                                                      |
| Tensile strength: 800 N                                                                                                                                                                                                                                                                                                                                       |
| Crush resistance: 2000 N                                                                                                                                                                                                                                                                                                                                      |
| Minimum bending radius: 20 X D                                                                                                                                                                                                                                                                                                                                |
| Operation Temperature: -10° C to +70° C                                                                                                                                                                                                                                                                                                                       |

|                                                                             |
|-----------------------------------------------------------------------------|
| Color: black                                                                |
| Attenuation: At 850nm: $\leq 0.27$ dB/km, At 1300 nm: $\leq 0.8$ dB/km      |
| Dimensional and mechanical properties of Fiber:                             |
| Cladding diameter ( $\mu\text{m}$ ): $125.0 \pm 1.0$                        |
| Cladding non-circularity (%): $\leq 1.0$                                    |
| Core non-circularity (%): $\leq 5$                                          |
| Core-cladding concentricity error ( $\mu\text{m}$ ): $\leq 1.5$             |
| Primary coating diameter - uncolored ( $\mu\text{m}$ ): $242 \pm 7.0$       |
| Primary coating diameter - colored ( $\mu\text{m}$ ): $250 \pm 15$          |
| Primary coating non-circularity (%): $\leq 5$                               |
| Primary coating-cladding concentricity error ( $\mu\text{m}$ ): $\leq 10.0$ |
| Proof stress level (GPa): $\geq 0.7$ ( $\approx 1\%$ )                      |
| Typical average strip force (N): 1.7                                        |
| Strip force (peak) (N): $1.3 \leq F_{\text{peakstrip}} \leq 8.9$            |

#### 24. 12 & 24 - port OM3 Fully loaded LIU Multi mode. SC Type

- Required for optical cable installation, fiber splicing and protection etc.

|                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LIU loaded with SC adaptor                                                                                                                                                                                                                                                                                                                                                                                        |
| With SC pigtails                                                                                                                                                                                                                                                                                                                                                                                                  |
| 19" 1U Fiber Panel is a shelf assembly for a fiber management system in a networking rack environment.                                                                                                                                                                                                                                                                                                            |
| Standards: Climate testing: IEC 60068-2-2 / IEC 60068-2-1                                                                                                                                                                                                                                                                                                                                                         |
| Temperature change and damp heat : IEC 61300-2-22 / IEC 61300-2-19                                                                                                                                                                                                                                                                                                                                                |
| Features: Easy removable Top plate with push buttons,<br>Inner tray of patch panel can be easily slide front & back,<br>Splice elements for up to 6x, 12x, 24x SC-PC DX as required,<br>Stress free and easy to handle fiber guidance,<br>High degree of flexibility and modularity,<br>Fast, secure and time saving installation and fiber routing,<br>Modular and flexible for splicing & patching applications |
| Technical Data:                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1U patch panel: Material color 12/5/2017 CRCA 1.2mm. Powder coated RAL 7035                                                                                                                                                                                                                                                                                                                                       |
| Packaging size(mm): 43.6 x 482.6 x 230 mm                                                                                                                                                                                                                                                                                                                                                                         |
| Temperature range $\text{ }^{\circ}\text{C}$ : transport, storage -40 up to +55, operation -25 to +55                                                                                                                                                                                                                                                                                                             |
| Scope of supply: 19" 1U FMS: 01pc                                                                                                                                                                                                                                                                                                                                                                                 |
| SC-PC Duplex Adapters : 6pc, 12pc, 24pc as required                                                                                                                                                                                                                                                                                                                                                               |
| Scope of supply: Splice Trays: 02pc                                                                                                                                                                                                                                                                                                                                                                               |
| Scope of supply: 19" 1U Rack mount set: 01pc                                                                                                                                                                                                                                                                                                                                                                      |
| Scope of supply: Kit 'B': 01pc                                                                                                                                                                                                                                                                                                                                                                                    |
| Scope of supply: Instruction Manual: 01                                                                                                                                                                                                                                                                                                                                                                           |
| Fiber Pigtail – SC Multimode (OM3)                                                                                                                                                                                                                                                                                                                                                                                |
| Pigtail with semi-tight buffer PA/PBT, $\text{ } \varnothing 0.9$ mm, multimode G50 50/125 $\mu\text{m}$ , length 1.5 m                                                                                                                                                                                                                                                                                           |
| Fitted with one SC connector in acc. : with IEC 61754-4.                                                                                                                                                                                                                                                                                                                                                          |
| Zirconia (ceramic) ferrule with a PC polished end face geometry, connector qualified in acc. with IEC 61753-1 for category U (uncontrolled environment).                                                                                                                                                                                                                                                          |
| Beige connector housing (multimode), : material PBT / UL 94 V-0, black strain relief, material TPE / UL 94 V-0 and plastic dust cover.                                                                                                                                                                                                                                                                            |

|                                                                                                      |
|------------------------------------------------------------------------------------------------------|
| Performance acc. to IEC 61753-1:                                                                     |
| Insertion loss (IL) grade M for 100% of the tested specimen: $\leq 0.75$ dB / typical $\leq 0.35$ dB |
| Mechanical specifications: Mating cycles: delta IL < 0.2 dB after 500 mating cycles                  |
| Pull-out force fiber pigtail: $\geq 5$ N                                                             |

## 25. Patch Cord SC-Duplex PC, beige - LC-Duplex PC, OM3

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SC-LC Patch cord with LSZH jacket, F8 2.0x4.1 mm, multimode G50 50/125 $\mu$ m (OM3), bend-optimized (5 Mtrs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mounted on one side with SC-Duplex connectors in acc. with IEC 61754-4. Zirconia (ceramic) ferrule with a PC polished endface geometry, connectors qualified in acc. with IEC 61753-1 for category U (uncontrolled environment). Beige connector housing (multimode), material PBT / UL 94 V-0, black duplex clip, 1 x black and 1 x red strain relief, material TPE / UL 94 V-0 and plastic dust cover.<br>and one side with LC-Duplex connectors in acc. with IEC 61754-20. Zirconia (ceramic) ferrule with a PC polished endface geometry, connectors qualified in acc. with IEC 61753-1 for category U (uncontrolled environment). Beige connector housing (multimode), turquoise duplex clip, material PC / UL 94 V-0, 1 x black and 1 x red strain relief, white plastic dust cover. |
| Optical specifications (random mated) Performance: • Insertion loss (IL) Grade Bm for 100% of the tested specimen: $\leq 0.50$ dB / typical $\leq 0.15$ dB • Return loss (RL) Grade 3: $\geq 35$ dB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Mechanical specifications: • Mating cycles: delta IL < 0.2 dB after 500 mating cycles<br>• Pull-out force patch cord: $\geq 100$ N (per connector)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

### **OFC Splicing and Termination & Testing**

- Splicing of optical fiber cable and proper termination has to be carried out by the contractor.
- Cable connectivity to be tested

### **PVC Conduit 25mm With Accessories**

ISI certified PVC pipe, casing capping and metal conduit of required sizes

### **Cable Laying - CAT6 Ethernet – UTP**

- Cat6 Ethernet cables have to be laid through ISI certified PVC pipe/case on capping. Outlet with back box, panel etc. has to be installed as per EIA/TIA cabling standards. The fixing of the casing must be carried out required accessories i.e. right-angle elbow, joints screws etc. All cable must be terminated with properly labelled ferules.
- Installation of data cables from one system to other system will be carried out by contractor.
- Ethernet cable installation will be on wall or underground as per site requirements.
- Detailed drawing of cable laying and cable termination with proper numbering and labelling at both ends must be furnished.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.

### **Cable Laying - CAT6 Ethernet - Armoured**

- Cat6 Ethernet armoured cables have to be laid through ISI certified PVC pipe/case on capping. Outlet with back box, panel etc. has to be installed as per EIA/TIA cabling standards. The fixing of the casing must be carried out required accessories i.e. right-angle elbow, joints screws etc. All cable must be terminated with properly labelled ferules.
- Installation of data cables from one system to other system will be carried out by contractor.
- Ethernet cable installation will be on wall or underground as per site requirements.
- Detailed drawing of cable laying and cable termination with proper numbering and labelling at both ends must be furnished.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.

#### **Cable Laying - Electrical Armoured**

- Three core power cables have to be laid through ISI certified pipe/duct/conduit. The fixing of the casing must be carried out required accessories i.e. right-angle elbow, joints screws etc. All cable must be terminated and labelled properly.
- The diameter of the cable conduit or pipe or duct should be at least 1.5 times the outer diameter of cable.
- Installation of power cables from one system to other system will be carried out by contractor.
- Power cable installation will be on wall or underground as per site requirements.
- Proper grounding has to be carried out for power cables.
- Single point AC power will be available for the contractor. The necessary arrangement for taking the AC power to various equipment will be in the scope of the contractor.
- Detailed drawing of cable laying and cable termination with proper numbering and labelling at both ends must be furnished.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.

#### **Cable Laying - Optical Armoured**

- Optical fiber armoured cables have to be laid. Outlet with back box, panel etc. has to be installed as per EIA/TIA cabling standards. The fixing of the casing must be carried out required accessories i.e. right-angle elbow, joints screws etc. All cable must be terminated with properly labelled ferules.
- Installation of fiber cables from one system to other system will be carried out by contractor.
- Fiber cable installation will be on wall or underground as per site requirements.
- Detailed drawing of cable laying and cable termination with proper numbering and labelling at both ends must be furnished.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.

#### **Conduit Laying - PVC 1"**

- Laying of ISI certified pipe/duct/conduit has to be carried out

- The fixing of the casing must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of conduit laying and termination with proper numbering and labelling at both ends must be furnished.

### **Conduit Laying – HDPE**

- Laying of HDPE pipe has to be carried out. The fixing of the HDPE pipe must be carried out with required accessories i.e. right-angle elbow, joints screws etc.
- All hardware items, work of trenching, drilling, cutting, and other associated works and material required for proper execution of the work will be in the scope of the contractor.
- Detailed drawing of HDPE pipe laying and termination with proper numbering and labelling at both ends must be furnished.

### **Soft Soil Trenching and Backfilling**

- Soft Soil Trenching and Backfilling has to be carried out by supplier
- Road Cutting and Backfilling with Cement Concrete
- Road Cutting and Backfilling with Cement Concrete has to be carried out by contractor
- Road cutting will be as per requirement.

### **Instructions to Contractor for installation and commissioning work**

- Digging in the ground & related civil works along with refilling to ensure the same position, if required for laying underground cables/pipe, is in the scope of Contractor. The civil work has to be performed as per the guidelines and instructions of Head, Construction and Engineering Services Group, AMD.
- Any other work required for the successful completion of the project is in the scope of the contractor.
- For installation of the supplied items and successful completion of the work, the contractor has to supply and install accessories such as Gutties, Screws, Taps, Bends, Tie packets, flexible pipe, bolts & Nuts etc.
- Cable Color combinations to be used while installing Patch cords (along with properly tagging both sides of the cable) for connecting Patch panel IO to Switch for easy identification.
- OFC patch cords, Patch Panel ports and IO ports should be properly labelled for easy identification.
- After commissioning, all the network racks have to be properly locked and the keys should be handed over to AMD.
- Quality of Service (QoS) configuration must be done on switches / routes for VoIP services as per the requirements of AMD.
- All passive components should support ETL and 3P Standards
- Supplied licenses of the switches should be valid till life time (perpetual).
- One switch management console cable should be provided for each location.
- All the supplied switches should be of the same make.
- Switches should support in-service software/firmware upgrades

- If the supplied products, provide equivalent protocols or conform to equivalent standards there should **NOT** be any incompatibility, compromise in the functionality or interoperability issues after integration with the existing network devices/components.
- All the supplied networking devices should be configured to be enable centralized management.

## Section V: Bill of Quantities

## 1. AMD Headquarter – Begumpet, Hyderabad

Number of access ports required: 900 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-1)                | Min. 40 x 10G SFP+                                   | 2                 |
| L3 Switch (Type-2)                | Min. 20 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 25                |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 2                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 54                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 12                |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 4                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 12U                                                  | 8                 |
| Wall Mount Rack                   | 9U                                                   | 5                 |
| CAT 6 Cable                       | UTP                                                  | 40,000 m          |
| CAT 6 Cable                       | STP                                                  | 5,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 900               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 55                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 900               |
| Patch Cord                        | ½ meter CAT 6 UTP Patch Cord                         | 20                |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 900               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 900               |
| HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                               | 500 m             |
| PVC Pipe                          | 1 inch                                               | 1300 m            |
| PVC Pipe                          | 2 inch                                               | 1400 m            |
| PVC                               | 1-inch PVC Casing & Capping                          | 2500 m            |
| PVC                               | 2-inch PVC Casing & Capping                          | 1000 m            |
| OFC Cable                         | 6 Core multi mode Indoor/Outdoor OFC cable-OM3       | 2500 m            |
| Additional Pigtailed              | SC/LC type pigtailed Multi Mode-OM3                  | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 21                |

### Installation and commissioning at HQ, Hyderabad

| Description                                                                          | Qty    | Units |
|--------------------------------------------------------------------------------------|--------|-------|
| Laying of CAT 6 cable                                                                | 45,000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                                               | 900    | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                                               | 900    | No.   |
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories             | 14     | No.   |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                              | 5200   | m     |
| Laying of OFC Cable                                                                  | 2500   | m     |
| Fixing of LIU Box                                                                    | 16     | No.   |
| Splicing of SC type Pigtailed along with Fiber OTDR Reports for Each Link both sides | 240    | No.   |

|                                                   |     |     |
|---------------------------------------------------|-----|-----|
| Laying of HDPE Pipe                               | 500 | m   |
| Installation & Configuration of L3 & L2 Switches. | 31  | No. |

## 2. Western Region, Jaipur

Number of access ports required: 550 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-2)                | Min. 20 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 15                |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 3                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 36                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 12                |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 3                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 12U                                                  | 4                 |
| Wall Mount Rack                   | 9U                                                   | 7                 |
| CAT 6 Cable                       | UTP                                                  | 24,000 m          |
| CAT 6 Cable                       | STP                                                  | 4,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 550               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 25                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 550               |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 550               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 550               |
| HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                               | 400 m             |
| PVC Pipe                          | 1 inch                                               | 1500 m            |
| PVC Pipe                          | 2 inch                                               | 600 m             |
| PVC                               | 1-inch PVC Casing & Capping                          | 1600 m            |
| PVC                               | 2-inch PVC Casing & Capping                          | 650 m             |
| OFC Cable                         | 6 Core multi-mode Indoor/Outdoor OFC cable-OM3       | 1000 m            |
| Additional Pigtaills              | SC/LC type pigtaills Multi Mode-OM3                  | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 18                |

### Installation and commissioning at Western Region, Jaipur

| Description                                                              | Qty    | Units |
|--------------------------------------------------------------------------|--------|-------|
| Laying of CAT 6 cable                                                    | 28,000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                                   | 550    | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                                   | 550    | No.   |
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories | 12     | No.   |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                  | 4350   | m     |
| Laying of OFC Cable                                                      | 1000   | m     |
| Fixing of LIU Box                                                        | 15     | No.   |

|                                                                                     |     |     |
|-------------------------------------------------------------------------------------|-----|-----|
| Splicing of SC type Pigtails along with Fiber OTDR Reports for Each Link both sides | 216 | No. |
| Laying of HDPE Pipe                                                                 | 400 | m   |
| Installation & Configuration of L3 & L2 Switches.                                   | 20  | No. |

### 3. Eastern Region – Jamshedpur

Number of access ports required: 450 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-2)                | Min. 20 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 10                |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 7                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 34                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 8                 |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 4                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 12U                                                  | 2                 |
| Wall Mount Rack                   | 9U                                                   | 6                 |
| CAT 6 Cable                       | UTP                                                  | 18,000 m          |
| CAT 6 Cable                       | STP                                                  | 4,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 450               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 25                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 450               |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 450               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 450               |
| HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                               | 300 m             |
| PVC Pipe                          | 1 inch                                               | 2200 m            |
| PVC Pipe                          | 2 inch                                               | 650 m             |
| PVC                               | 1-inch PVC Casing & Capping                          | 850 m             |
| PVC                               | 2-inch PVC Casing & Capping                          | 500 m             |
| OFC Cable                         | 6 Core multi mode Indoor/Outdoor OFC cable-OM3       | 1500 m            |
| Additional Pigtails               | SC/LC type pigtails Multi Mode-OM3                   | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 18                |

#### Installation and commissioning at Eastern Region, Jamshedpur

| Description                                                              | Qty    | Units |
|--------------------------------------------------------------------------|--------|-------|
| Laying of CAT 6 cable                                                    | 22,000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                                   | 450    | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                                   | 450    | No.   |
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories | 9      | No.   |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                  | 4200   | m     |

|                                                                                     |      |     |
|-------------------------------------------------------------------------------------|------|-----|
| Laying of OFC Cable                                                                 | 1500 | m   |
| Fixing of LIU Box                                                                   | 12   | No. |
| Splicing of SC type Pigtails along with Fiber OTDR Reports for Each Link both sides | 192  | No. |
| Laying of HDPE Pipe                                                                 | 300  | m   |
| Installation & Configuration of L3 & L2 Switches.                                   | 19   | No. |

#### 4. Southern Region – Bengaluru

Number of access ports required: 600 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-2)                | Min. 20 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 16                |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 4                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 40                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 8                 |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 5                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 15U                                                  | 1                 |
| Wall Mount Rack                   | 12U                                                  | 6                 |
| Wall Mount Rack                   | 9U                                                   | 2                 |
| CAT 6 Cable                       | UTP                                                  | 23,000 m          |
| CAT 6 Cable                       | STP                                                  | 4,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 600               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 35                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 600               |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 600               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 600               |
| HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                               | 1500 m            |
| PVC Pipe                          | 1 inch                                               | 1700 m            |
| PVC Pipe                          | 2 inch                                               | 350 m             |
| PVC                               | 1-inch PVC Casing & Capping                          | 1700 m            |
| PVC                               | 2-inch PVC Casing & Capping                          | 700 m             |
| OFC Cable                         | 6 Core multi mode Indoor/Outdoor OFC cable-OM3       | 2000 m            |
| Additional Pigtails               | SC/LC type pigtails Multi Mode-OM3                   | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 26                |

#### Installation and commissioning at Southern Region, Bengaluru

| Description                            | Qty    | Units |
|----------------------------------------|--------|-------|
| Laying of CAT 6 cable                  | 27,000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB. | 600    | No.   |
| Fixing of CAT6 IOS at Patch Panel Side | 600    | No.   |

|                                                                                     |      |     |
|-------------------------------------------------------------------------------------|------|-----|
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories            | 10   | No. |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                             | 4450 | m   |
| Laying of OFC Cable                                                                 | 2000 | m   |
| Fixing of LIU Box                                                                   | 13   | No. |
| Splicing of SC type Pigtails along with Fiber OTDR Reports for Each Link both sides | 216  | No. |
| Laying of HDPE Pipe                                                                 | 1500 | m   |
| Installation & Configuration of L3 & L2 Switches.                                   | 22   | No. |

## 5. Central Region – Nagpur

Number of access ports required: 550 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-2)                | Min. 20 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 16                |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 5                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 42                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 11                |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 4                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 12U                                                  | 4                 |
| Wall Mount Rack                   | 9U                                                   | 7                 |
| CAT 6 Cable                       | UTP                                                  | 27,000 m          |
| CAT 6 Cable                       | STP                                                  | 4,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 550               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 30                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 550               |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 550               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 550               |
| HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                               | 1000 m            |
| PVC Pipe                          | 1 inch                                               | 2000 m            |
| PVC Pipe                          | 2 inch                                               | 850 m             |
| PVC                               | 1-inch PVC Casing & Capping                          | 1900 m            |
| PVC                               | 2-inch PVC Casing & Capping                          | 1000 m            |
| OFC Cable                         | 6 Core multi mode Indoor/Outdoor OFC cable-OM3       | 1500 m            |
| Additional Pigtails               | SC/LC type pigtails Multi Mode-OM3                   | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 24                |

### Installation and commissioning at Central Region, Nagpur

| Description           | Qty    | Units |
|-----------------------|--------|-------|
| Laying of CAT 6 cable | 31,000 | m     |

|                                                                                     |      |     |
|-------------------------------------------------------------------------------------|------|-----|
| Fixing of CAT 6 IOS, Faceplates & SMB.                                              | 550  | No. |
| Fixing of CAT6 IOS at Patch Panel Side                                              | 550  | No. |
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories            | 12   | No. |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                             | 5750 | m   |
| Laying of OFC Cable                                                                 | 1500 | m   |
| Fixing of LIU Box                                                                   | 15   | No. |
| Splicing of SC type Pigtails along with Fiber OTDR Reports for Each Link both sides | 228  | No. |
| Laying of HDPE Pipe                                                                 | 1000 | m   |
| Installation & Configuration of L3 & L2 Switches.                                   | 23   | No. |

## 6. North Eastern Region – Shillong

Number of access ports required: 200 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-3)                | Min. 12 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 8                 |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 4                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 24                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 6                 |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 3                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 12U                                                  | 1                 |
| Wall Mount Rack                   | 9U                                                   | 5                 |
| CAT 6 Cable                       | UTP                                                  | 8,000 m           |
| CAT 6 Cable                       | STP                                                  | 4,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 200               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 12                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 200               |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 200               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 200               |
| HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                               | 400 m             |
| PVC Pipe                          | 1 inch                                               | 1000 m            |
| PVC Pipe                          | 2 inch                                               | 350 m             |
| PVC                               | 1-inch PVC Casing & Capping                          | 1000 m            |
| PVC                               | 2-inch PVC Casing & Capping                          | 500 m             |
| OFC Cable                         | 6 Core multi mode Indoor/Outdoor OFC cable-OM3       | 700 m             |
| Additional Pigtails               | SC/LC type pigtails Multi Mode-OM3                   | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 14                |

Installation and commissioning at North-Eastern Region, Shillong

| Description                                                                         | Qty    | Units |
|-------------------------------------------------------------------------------------|--------|-------|
| Laying of CAT 6 cable                                                               | 12,000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                                              | 200    | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                                              | 200    | No.   |
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories            | 7      | No.   |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                             | 2850   | m     |
| Laying of OFC Cable                                                                 | 700    | m     |
| Fixing of LIU Box                                                                   | 9      | No.   |
| Splicing of SC type Pigtails along with Fiber OTDR Reports for Each Link both sides | 144    | No.   |
| Laying of HDPE Pipe                                                                 | 400    | m     |
| Installation & Configuration of L3 & L2 Switches.                                   | 14     | No.   |

## 7. Northern Region – Delhi

Number of access ports required: 160 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L3 Switch (Type-3)                | Min. 12 x 10G SFP+                                   | 2                 |
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 6                 |
| L2 Managed Access Switch (Type-2) | Min. 12-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 4                 |
| SFP+ module                       | 10G SFP+ SR module                                   | 20                |
| Transceivers                      | 1000BASE-T SFP Copper transceiver module             | 2                 |
| LIU Box                           | 12 port Fully loaded LIU Multi mode                  | 3                 |
| LIU Box                           | 24 port Fully loaded LIU Multi mode                  | 2                 |
| Floor Mounted Rack                | 42U                                                  | 1                 |
| Wall Mount Rack                   | 15U                                                  | 2                 |
| Wall Mount Rack                   | 12U                                                  | 1                 |
| CAT 6 Cable                       | UTP                                                  | 8,000 m           |
| CAT 6 Cable                       | STP                                                  | 3,000 m           |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 300               |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 15                |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 300               |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 300               |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 300               |
| PVC Pipe                          | 2 inch                                               | 200 m             |
| PVC                               | 1-inch PVC Casing & Capping                          | 850 m             |
| PVC                               | 2-inch PVC Casing & Capping                          | 850 m             |
| OFC Cable                         | 6 Core multi mode Indoor/Outdoor OFC cable-OM3       | 400 m             |
| Additional Pigtails               | SC/LC type pigtails Multi Mode-OM3                   | 2                 |
| Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3            | 12                |

#### Installation and commissioning at Northern Region, New Delhi

| Description                                                                         | Qty    | Units |
|-------------------------------------------------------------------------------------|--------|-------|
| Laying of CAT 6 cable                                                               | 11,000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                                              | 300    | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                                              | 300    | No.   |
| Installation & Fixing of Floor & Wall Mount Racks with basic accessories            | 4      | No.   |
| Laying of 1 & 2 Inch PVC Casing & Pipe.                                             | 1900   | m     |
| Laying of OFC Cable                                                                 | 400    | m     |
| Fixing of LIU Box                                                                   | 5      | No.   |
| Splicing of SC type Pigtails along with Fiber OTDR Reports for Each Link both sides | 84     | No.   |
| Installation & Configuration of L3 & L2 Switches.                                   | 12     | No.   |

#### 8. BSOI, Thiruvananthapuram

Number of access ports required: 30 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 2                 |
| Wall Mount Rack                   | 9U                                                   | 1                 |
| CAT 6 Cable                       | UTP                                                  | 500 m             |
| CAT 6 Cable                       | STP                                                  | 1000 m            |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 30                |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 2                 |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 30                |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 30                |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 30                |
| PVC                               | 1-inch PVC Casing & Capping                          | 200               |
| PVC                               | 2-inch PVC Casing & Capping                          | 150               |

#### Installation and commissioning at BSOI, Thiruvanthapuram

| Description                                                      | Qty  | Units |
|------------------------------------------------------------------|------|-------|
| Laying of CAT 6 cable                                            | 1500 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                           | 30   | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                           | 30   | No.   |
| Installation & Fixing of Wall Mount Racks with basic accessories | 1    | No.   |
| Laying of 1 & 2 Inch PVC Casing                                  | 350  | m     |
| Installation & Configuration of L2 Switches.                     | 2    | No.   |

#### 9. AMD Lab Stores, Near NFC Fire Station, PO: ECIL, Hyderabad

Number of access ports required: 50 approx

| Item                              | Description                                          | Quantity Required |
|-----------------------------------|------------------------------------------------------|-------------------|
| L2 Managed Access Switch (Type-1) | Min. 24-port 10/100/1000BASE-T and Min. 2 x 10G SFP+ | 2                 |
| Wall Mount Rack                   | 9U                                                   | 1                 |
| CAT 6 Cable                       | UTP                                                  | 1000 m            |
| CAT 6 Cable                       | STP                                                  | 1000 m            |
| CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)              | 50                |
| Patch Panel                       | CAT 6 UTP 24 Port Unloaded                           | 3                 |
| CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                      | 50                |
| Patch Cord                        | 1-meter CAT 6 UTP Patch Cord                         | 50                |
| Patch Cord                        | 2 meters CAT 6 UTP Patch Cord                        | 50                |
| PVC                               | 1-inch PVC Casing & Capping                          | 250               |
| PVC                               | 2-inch PVC Casing & Capping                          | 150               |

#### Installation and commissioning at AMD Lab Stores Hyderabad

| Description                                                      | Qty  | Units |
|------------------------------------------------------------------|------|-------|
| Laying of CAT 6 cable                                            | 2000 | m     |
| Fixing of CAT 6 IOS, Faceplates & SMB.                           | 50   | No.   |
| Fixing of CAT6 IOS at Patch Panel Side                           | 50   | No.   |
| Installation & Fixing of Wall Mount Racks with basic accessories | 1    | No.   |
| Laying of 1 & 2 Inch PVC Casing                                  | 400  | m     |
| Installation & Configuration of L2 Switches.                     | 2    | No.   |

## Section VI: Qualification Criteria

## A. Bidder's Qualification Criteria

The Bidder must have valid higher or equivalent - ISO 9001:2015, ISO 20000, ISO 27001:2013. Bidder shall submit the valid documents.

**The bidder must submit Manufacturer Authorisation Form (MAF) along with the bid for the supplied items.**

1. OEM's MAF should contain mainly the following points while issuing to bidder:
  - a) Offered equipment(s)/Software(s) will not be declared end of life/support till **31/12/2030**.
  - b) Offered equipment(s)/Software(s) are IPv6 ready (in case of switches).
  - c) Make and Model of Offered equipment(s)/Software(s) should be clearly mentioned.
2. Bidder should have & provide a dedicated/Toll free no. for service support. *Relevant details to be submitted with Bid Document.*
3. Malicious Code Certificate: Bidder should upload following certificate in the bid: -
  - a) This is to certify that the Hardware and the Software being offered, as part of the contract, does not contain Embedded Malicious code that would activate procedures to: -
    - i. Inhibit the desires and designed function of the equipment.
    - ii. Cause physical damage to the user or equipment during the exploitation.
    - iii. Tap information resident or transient in the equipment/network.
  - b) The entity will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Right (IPRs) are caused due to activation of any such malicious code in embedded software.

## B. Original Equipment Manufacturer (OEM)'s Criteria

OEMs whose products have been offered in the bid shall have Technical Assistance Centre (TAC) in India. OEM shall have dedicated/Toll Free Number for TAC to support the equipment. OEM(s) should have direct presence with their own office in India. *Relevant documentary proof (i.e. Registration/Incorporation Certificate, Self-certification of TAC availability and Dedicated/Toll free number) should be submitted.*

**Authorized System Integrator:** The bidder shall be OEM or authorized System Integrator of offered Switches. Tender Specific Authorization Form from OEM shall be submitted as proof.

- a) Copy of work order along with schedule of quantities and completion certificate shall be uploaded/ submitted for consideration of eligibility under similar works.
- b) Cost of work shall mean gross value of the completed work including the cost of materials supplied by the Client, but excluding those supplied free of cost. This should be certified by an officer not below the rank of Executive Engineer/Project Manager or equivalent.

- c) The value of executed work will be brought to the current costing level by enhancing the actual value of work at simple rate of 7% per annum to be calculated from the date of completion to the last date of receipt of tender. The cost of materials supplied free of cost, shall be excluded in value of order.

## Section VII: Scope of Work

## **DETAILED SCOPE OF WORK**

### **1. Strengthening of Networking & Infrastructure**

The network infrastructure as well as the IT setup should offer minimal downtime due to failure or breakdown of links or devices and even for planned outages. The network shall be scalable as well as flexible so that future expansions and enhancements can be made in keeping with the rapid growth of technology and growing demands.

### **2. Scope of work**

The scope of work involves

- a) Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years.
- b) Approximately 3500 connections (terminals) inclusive of associated laying of conduit/channel/cable and IO points. The exact number of connections will be ascertained at the time of implementation.
- c) The LAN cabling works must be carried out using a structured cabling design with proper labelling of cables at ends, crimping of cables, fixing of patch panels, and proper fixing of LAN cables in PVC conduits.
- d) Any structure, permanent or temporary, dismantled or destroyed during the execution of the work shall be refilled / remake or restore to its original condition by the bidder at his own cost.
- e) Any extra electrical points and data points required in the server room shall be provided by the bidder at his own cost.
- f) AMD reserves the right for quantity variation due to increase/decrease in requirements. The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability and reliability of the total system covered under this specification, including integration and interoperability with the existing LAN.
- g) The bidder should provide all the required accessories like transceiver, deck cable, fiber patch cord etc at no extra cost to complete the network inter connectivity of switches to carry out its obligations with respect to Commissioning of this project.
- h) Integration of the above Networks with existing LAN and WAN devices located at HQ, seven regional centers, two sectional offices and AMD lab store, Hyderabad

- i) The default credentials of all the supplied devices should be changed, properly documented and should be handed over to Officer-In-Charge securely.
- j) The empty / unutilized slots in the supplied devices should be installed with dummy panels / blanks to prevent any pest infestation or dust accumulation.

**k) Installation of LAN/OFC Cables**

Before execution of the work, the bidder should assess the routes for laying the cable at each location and prepare a detailed survey report to the scale. This report shall be submitted by bidder to Officer-in-charge for approval and requisite clearances need to be obtained before the commencement of cable installation work.

**l) Laying of LAN Equipment**

The bidder is required to conduct the survey, propose the network layout and lay OFC / Ethernet LAN / VLAN cables, Switches etc. at the selected location and carry out all the activities for completion of the work as per the requirements of AMD. The bidder has to:

- Lay Structured LAN cabling (including labelling and tagging) in the selected buildings as per requirement.
- Installation of all the supplied network equipment.
- Conduit/Wiring/Fixing of Modular accessories for electrical wiring to supply electric power to networking devices as per requirement.

**m) Network Architecture**

- Bidder shall be responsible for the planning of the access network layout to meet the technical, capacity and service requirements.
- Bidder shall plan for high availability, reliability and redundancy of the access network elements to meet the requirements.
- Bidder shall be responsible for providing and executing Cabling, testing etc. without affecting the aesthetics and user service of the AMD Campus.

- n) Tenderer is advised in their own interest to visit the proposed site of work to acquaint themselves with the site and the working conditions.

**3. Training and Documentation**

- The Bidder has to provide onsite training to a team of AMD officers for handling all network System.
- The Bidder has to submit the detailed documentation of the work carried-out including installation of network equipment and connectivity to Officer-In-Charge:
  - i. OFC cabling layout highlighted on Building layout diagrams
  - ii. Soft copies of user manuals and datasheets of devices installed

- iii. Complete license information of the supplied devices
- iv. VLAN, MAC binding of each port, QoS & VRF Configuration details for every switch (as per instructions of Officer-In-Charge)
- v. Serial No. and installed location details of every switch as given in the below tables.
- vi. IO port and Switch Connectivity Details as given in the below tables.

The contractor should approach Officer-In-Charge for format of **Unique Asset Number** and prepare tables as per following format while submitting details:

| S. No. | Unique Asset Number | Switch Type as per BoQ | Switch Serial Number | Installed Location (Block/ Building/ Floor Number) | Installed PSU Serial Number | Basic Configuration with security performed (Yes/No) | Switch credentials for management | Uplink Switch Serial Number | Uplink Switch Port number | Uplink cable length used (in meters) |
|--------|---------------------|------------------------|----------------------|----------------------------------------------------|-----------------------------|------------------------------------------------------|-----------------------------------|-----------------------------|---------------------------|--------------------------------------|
|--------|---------------------|------------------------|----------------------|----------------------------------------------------|-----------------------------|------------------------------------------------------|-----------------------------------|-----------------------------|---------------------------|--------------------------------------|

| S. No. | Block/ Building/ Room Number | IO Port ID/tag number | Cable length used (in meters) | Corresponding Patch Panel IO Port number | Switch port number |
|--------|------------------------------|-----------------------|-------------------------------|------------------------------------------|--------------------|
|--------|------------------------------|-----------------------|-------------------------------|------------------------------------------|--------------------|

| S. No. | SFP+ module Serial Number | Unique Asset Number where installed |
|--------|---------------------------|-------------------------------------|
|--------|---------------------------|-------------------------------------|

The contractor may add more columns to provide any other relevant information in above tables.

Every network device (before installation) should be labelled with custom sticker including following information:

1. Work Order Number
2. Serial Number of device
3. Installation date (dd/mm/yyyy)
4. Unique Asset Number

The documents submitted will be verified by Officer-In-Charge.

## Section VIII: ANNEXURES

**ANNEXURE-I****LIST OF DOCUMENTS TO BE SCANNED & UPLOADED ALONG WITH BID**

|     |                                                                                                                                                                                             |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | Copy of Original EMD                                                                                                                                                                        |
| 2.  | Affidavit (as per S.No. 6.5 of Section I )                                                                                                                                                  |
| 3.  | Annual turn over certified by Licensed Chartered Accountant for immediate last three consecutive financial years (Annexure-VIII)                                                            |
| 4.  | Profit & Loss statement certified by Licensed Chartered Accountant for last five consecutive immediate financial years                                                                      |
| 5.  | Latest Bank Solvency Certificate not older than one year from last date of submission of bid (Annexure VII)                                                                                 |
| 6.  | List of similar works completed in last seven years (Annexure-IX)                                                                                                                           |
| 7.  | List of works in Hand                                                                                                                                                                       |
| 8.  | List of Technical Staff                                                                                                                                                                     |
| 9.  | Certificates:                                                                                                                                                                               |
|     | i) Registration certificate, if any                                                                                                                                                         |
|     | ii) Certificates of Work Experience / Performance Certificates                                                                                                                              |
|     | iii) GST (Goods and Services Tax) Registration Certificate                                                                                                                                  |
|     | iv) PAN (Permanent Account Number) Registration                                                                                                                                             |
|     | v) EPFO registration Certificate (If applicable)                                                                                                                                            |
|     | vi) ESIC registration certificate (If applicable)                                                                                                                                           |
|     | vii) OEM Certificates / OEM authorized dealership certificates                                                                                                                              |
| 10. | Undertaking that the eligible similar work(s) have not been executed through another contractor on back to back basis.                                                                      |
| 11. | Tender Acceptance Letter (Annexure-XIV)                                                                                                                                                     |
| 12. | Declaration confirming filing of Income tax return from Immediate two preceding years (Annexure-VI)                                                                                         |
| 13. | Annexure -XI, Form of certificate for eligible source countries (to be submitted on bidder's letter head)                                                                                   |
| 14. | Declaration of Local Content (Annexure-XII)                                                                                                                                                 |
| 15. | Undertakings from OEM (as per S. No. 6.16 point 37 of Section I)                                                                                                                            |
| 16. | Site visit Report (Annexure-XIII)                                                                                                                                                           |
| 17. | A duly signed self-certificate stating that the bidder has not been black listed by any institution of Central / State Government/ private sector in the past three years may be submitted. |
| 18. | Covering letter format for Bid Submission-Annexure-II                                                                                                                                       |
| 19. | Bidder's Information (Annexure-III)                                                                                                                                                         |
| 20. | Technical specification-Compliance (Annexure-V)                                                                                                                                             |
| 21. | Bill of Quantities - compliance (Annexure-IV)                                                                                                                                               |
| 22. | Compliance to Bid Requirement - Annexure-X.                                                                                                                                                 |
| 23. | The bidder has to upload following documents duly signed and stamp: Tender document, any Clarifications / corrigendum / addendums issued by the Department.                                 |

|     |                                                                                                                                                                                                            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 24. | The bidder should also clearly indicate brand name, type / model number of the material offered for each listed item in BoQ maintaining the same numbering and structure.                                  |
| 25. | Make and Model of the offered items (Annexure- <del>XX</del> )                                                                                                                                             |
| 26. | Relevant documents like make & model, technical data, literature, drawings, datasheets, test Reports/ Certificates and or/ or Type Test Certificates (if applicable/ necessary) with supporting documents. |
| 27. | Documents validating certification of Bidder (ISO 9001:2015, ISO 20000, ISO 27001:2013 or equivalent)                                                                                                      |
| 28. | Document mentioning dedicated/Toll free no. of bidder for service support                                                                                                                                  |
| 29. | Malicious Code Certificate (as per Section VI)                                                                                                                                                             |
| 30. | Documentary proofs from OEM (as per Section VI)                                                                                                                                                            |
| 31. | Tender Specific Authorization Form from OEM (as per Section VI)                                                                                                                                            |
| 32. | Copy of work order along with schedule of quantities and completion certificate for consideration of eligibility under similar works                                                                       |
| 33. | Any other format/ form if stipulated or if considered relevant by the bidder                                                                                                                               |

In case ambiguity/difference between wordings of English and Hindi version of tender document, the English version will prevail.

### **Address of AMD Locations for the LAN Upgrade work**

| <b>S. No.</b> | <b>Headquarter/Region</b> |                            | <b>Location</b>    | <b>Office Address</b>                                                                                                           |
|---------------|---------------------------|----------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1             | Headquarter (HQ)          |                            | Hyderabad          | Atomic Minerals Directorate for Exploration and Research (AMD), AMD Complex, Begumpet, Hyderabad-500 016                        |
| 2             | <b>Regions of AMD</b>     | Northern Region (NR)       | New Delhi          | Regional Centre for Exploration and Research, AMD Complex, West Block VII, R.K. Puram, New Delhi - 110 066.                     |
| 3             |                           | Eastern Region (ER)        | Jamshedpur*        | Regional Centre for Exploration and Research, AMD Complex, Khasmahal, P.O. Tatanagar, Dist. East Singhbhum, Jharkhand – 831002. |
| 4             |                           | North Eastern Region (NER) | Shillong           | Regional Centre for Exploration and Research, AMD Complex, Nongmynsong, PO: Nongmynsong, Shillong – 793 019.                    |
| 5             |                           | Southern Region (SR)       | Bangalore          | Regional Centre for Exploration and Research, AMD Complex, Nagarabhavi, Bangalore- 560 072.                                     |
| 6             |                           | Western Region (WR)        | Jaipur             | Regional Centre for Exploration and Research, AMD Complex, Sector-5 Extension, Pratap Nagar, Sanganer, Jaipur – 302033.         |
| 7             |                           | Central Region (CR)        | Nagpur             | Regional Centre for Exploration and Research, AMD Complex, Civil Lines, Nagpur – 440 001.                                       |
| 8             |                           | Section Office             | Thiruvananthapuram | AMD, Department of Atomic Energy, Lekshmi, TC-17/406(1), Poojapura, Thiruvananthapuram, Kerala - 695 012                        |
| 9             |                           | Lab Stores                 | Hyderabad          | Laboratory Stores, Near NFC Fire Station, PO: ECIL, Hyderabad - 500 062                                                         |

\* Jamshedpur and Tatanagar are being invariably used for the same locations/city.

**COVERING LETTER FOR SUBMISSION OF BID**

(To be submitted by bidders on their letter head)

Date: -----

Letter No.: \_\_\_\_\_

Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

Dear Sir/Madam,

Please find herewith our Bid for the subject work in two parts (Part-I: Techno-commercial Bid, Part-II: Price Bid) in line with the requirement of the Tender Document. We confirm that:

1. None of the Partners of our firm is relative of employee of Atomic Minerals Directorate for Exploration & Research (AMD).
2. All information furnished by me/us in respect of fulfillment of eligibility criteria and Qualification information of this Tender is complete, correct and true.
3. All documents/credentials submitted along with this Tender are genuine, authentic, true and valid.
4. If any information and document submitted is found to be false/incorrect at any time, AMD may cancel our Bid and action as deemed fit may be taken against us, including termination of the contract, forfeiture of all dues and banning/de listing of our firm and all partners of our firm etc.
5. I / We, hereby tender for the execution of the work for the President of India within the time specified in Section-I viz., NIT and in accordance in all respects with the specifications, drawings and instructions.
6. I / We have read and examined the documents and rules referred to and all other contents in the tender documents for the work and accordingly I / We, hereby submit credentials and other documents as are provided for, by, and in respects in accordance with, such conditions so far as applicable.
7. I / We have understood the entire scope of work and rates quoted accordingly. We shall carry out the work as per BoQ, technical specifications and complete the work within stipulated time to the entire satisfaction of the Department.
8. I / We also declare that we have not executed similar projects through another contractor on back to back basis. Further that, if such violation comes to the notice of Department, then we shall be debarred for bidding in DAE in future forever. Also if, such violation comes to the notice of the Department before date of start of work, bidder will be suspended for the period mentioned. The Officer-in-Charge shall be free to forfeit the entire amount of Performance Guarantee etc.
9. Should this tender be accepted I/we hereby agree to abide by and fulfil all the terms contained in the tender document which has been read by me, read and explained to me

so far as applicable, or in default thereof to forfeit and to the President of India or his successors in office the sums of money mentioned in the conditions.

10. Demand Draft or Call Deposit Receipt of Schedule Bank \_\_\_\_\_ is forwarded herewith for the sum of Rs. \_\_\_\_\_ as earnest money, the full value of which is to be absolutely forfeited to the President of India or his successors in office, without prejudice to any other or remedies of the said President or his successors in office should I/we fail to commence the work specified, otherwise the said sum of Rs. \_\_\_\_\_ shall be retained by the Department of Atomic Energy as an account of such security deposit as aforesaid.
11. We have submitted a no-deviation bid. We understand that in the event of our taking any deviation, our Bid may not be considered for further evaluation.
12. We further confirm that we will not change the above said arrangement in the event of award of work to complete the work in totality as agreed and confirmed as per terms and conditions of the Tender document.
13. Our Bid is in complete compliance with all technical as well as commercial requirements of Tender document including Addendum/Corrigendum (if any) and there is no technical or commercial deviation in the Bid.
14. We also confirm that our price shall remain FIRM for the entire Contract period, unless there is specific provision for adjustment in price as per terms and conditions of the Tender document.
15. We have submitted all documents as stipulated in NIT and various sections of the Tender document/ Technical specifications.
16. We also confirm that if our bid validity period is to be extended on a later date for a reasonable period, on written request from AMD, we shall suitably extend the bid validity period without any financial implication until there is change in terms and conditions/Scope of work etc.
17. We also confirm that in the event of award of work to us, we shall submit performance bank guarantee for execution of work including the defect liability period as per terms and conditions of the Tender document in AMD approved format.

Bidder's signature :

Name :

Designation :

Mobile (with STD Code):

Email :

Full Address (for all future communication):

Company Seal :

**Note:** Bidder to note that:

1. All the pages of bids are to be signed by the authorized signatory (having power of attorney (POA)).
2. All correspondence with AMD shall be made by the POA holder.

**Bidder Information**

(To be submitted as part of Technical bid) (On Company Letter-head)

(Along with supporting documents, if any)

Bidder's Name\_\_\_\_\_

[Address and Contact Details]

Date.....

Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

*Note: Bidder shall fill in this Form following the instructions indicated below. No alterations to its format shall be permitted, and no substitutions shall be accepted. Bidder shall enclose certified copies of the documentary proof/ evidence to substantiate the corresponding statement wherever necessary and applicable. Bidder's wrong or misleading information then AMD may reject the bid .*

*(Please tick appropriate boxes or strike out sentences/ phrases not applicable to you)*

**8) Bidder/ Contractor particulars:**

- (a) Name of the Company:.....
- (b) Corporate Identity No. (CIN): .....
- (c) CPP Vendor ID .....
- (d) Place of Registration .....
- (e) Complete Postal Address: .....
- (f) Pin code: .....
- (g) Telephone nos.: .....
- (h) Mobile Nos.: .....
- (i) Contact persons/ Designation: .....
- (j) Email IDs: .....

**9) Taxation Registrations:**

- (a) PAN number: .....
- (b) GSTIN number: .....

We solemnly declare that our GST rating on the GST portal/ Govt. official website is not negative/ blacklisted.

*Documents to be submitted: Self-attested Copies of PAN card and GSTIN Registration.*

**10) Authorization of Person(s) signing the bid on behalf of the Bidder**

- (a) Full Name: \_\_\_\_\_
- (b) Designation: \_\_\_\_\_
- (c) Signing as:

☐ A company. The person signing the bid is the constituted attorney by a resolution passed by the Board of Directors or Power of attorney given on stamp paper by authorise person.

*Documents to be submitted: Power of Attorney/ Board Resolution*

**11) Bidder's Authorized Representative Information**

- (a) Name:
- (b) Address:
- (c) Telephone/ Mobile numbers:
- (d) Email Address:

(Signature with date)

.....

(Name and designation)

Duly authorized to sign bid for and on behalf of [name & address of Bidder and seal of company]

**Bill of Quantities - Compliance**  
(on Company Official Letter Head)

Bidder's Name\_\_\_\_\_

[Address and Contact Details]

Date.....

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

Subject: Bill of Quantities (BoQ) Compliance

There are no deviations (null deviations) in Bill of Quantities mention in Section V in Tender Document. <<M/s Bidder's Name ->> certify that our proposal includes all the equipment & services specified in tender document.

We understand that the requirement of equipment(s) & services briefed in **Section-V-Bill of Quantities**; we confirm that we have undertaken our own assessment for complete implementation of project and accordingly we have considered extra Equipment, software, application and services etc. (if any) will be provided by << M/s Bidder's Name >>>> to complete the project.

This is to certify that our proposed bid included all the Equipment(s) and service mentioned in **Section-V-Bill of Quantities** as well as other material or service based on self-assessment to complete the project and meets all the requirements of the tender document including but not limited to Scope of Work, Business Requirements and Functional Specifications/ Requirements.

In case, any equipment or software or services is found non-compliant at any stage during project implementation or after acceptance, it would be replaced with a fully compliant product/ solution at no additional cost to AMD. In case of non-adherence of this activity, AMD reserves the right to cancel the contract, in case the said Contract is awarded to us by AMD.

We shall comply with Warranty requirements in the Tender Document.

We further confirm that our commercial proposal is for the entire scope of work, comprising all required components and our obligations, for meeting the scope of work.

(Signature with date)

.....

(Name and designation)

Duly authorized to sign bid for and on behalf of [name & address of Bidder and seal of company]

**Technical Specifications- Compliance**

(on Company Official Letter Head)

Bidder's Name\_\_\_\_\_

[Address and Contact Details]

Date.....

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

Subject: **Section IV- Technical Specification Compliance**

There are no deviations (null deviations) in Technical Specification mention in **Section IV- Technical Specification** in Tender Document. <<M/s----->> certify that our proposal fulfil specification of each Equipment & Service specified in tender document.

We understand that the Specification of equipment(s) & services briefed in **Section IV- Technical Specification**; we certify that our proposed equipment(s) & services are same or higher than the minimum technical specifications as given in the tender document.

In case, any equipment or software or services is found non-compliant at any stage during project implementation or after acceptance, it would be replaced with a fully compliant product/ solution at no additional cost to AMD. In case of non-adherence of this activity, AMD reserves the right to cancel the contract, in case the said Contract is awarded to us by AMD.

We further confirm that our commercial proposal is for the entire scope of work, comprising all required components, specifications and our obligations, for meeting the scope of work.

Enclosure: -

- 1. Compliance Statement of Section- IV and required and relevant documents like technical data, literature, drawings, datasheets, test Reports/ Certificates with supporting documents, to establish that the Equipment and Services offered in the bid fully conform to the Equipment and Services specified by the AMD in the Tender Document along with this compliance.**

Yours faithfully,

(Signature with date)

.....

(Name and designation)

Duly authorized to sign bid for and on behalf of [name & address of Bidder and seal of company]

**TO WHOMSOEVER IT MAY CONCERN****Undertaking pursuant to Section 206 AB of the Income Tax Act 1961. Declaration confirming filling of Income Tax Return from Immediate two preceding years.**

I,..... (Name), in the capacity of Individual / Proprietor / Partner / Director / Authorized signatory of..... (Entity Name) with PAN....., do hereby make the following declaration as required under the relevant provisions of the Income Act, 1961 (hereinafter referred as 'the Act'):

1. That I / We am / are authorized to make this declaration in the capacity as Individual / Proprietor / Partner / Director.
2. I / We hereby declare and confirm that I / We do not fall under the definition of 'specified person' as provided in section 206AB of the IT Act.
3. I / We have duly filed return of income for FY 22-23 & 23-24 within due date as per Section 139(1) of the Income-tax Act, 1961 – Yes / No (strike out whichever is not applicable).
4. If return has been filed the details are as follows:

I/We.....having PAN....., hereby confirm that the provision of Section 206AB is not applicable in my/our case as I/we am/are regular in filling of Income Tax Return. The details (along with proof of documents) of acknowledgement numbers and date of filing of Income tax Returns for last two financial years are furnished below:

| S. No. | Financial Year /(Assessment Year) | Date of Filing Income Tax Return | ITR Acknowledgement Number |
|--------|-----------------------------------|----------------------------------|----------------------------|
| 1      | 2022-23 / (2023-24)               |                                  |                            |
| 2      | 2023-24 / (2024-25)               |                                  |                            |

5. I/We hereby take responsibility for any loss/ liability fully including any Tax, Interest, penalty, etc. that may arise due to incorrect reporting of above information. All the aforesaid representations are true and correct, and we/I agree to furnish any evidence required at any time in support thereof.

On behalf of.....

<<Name of the authorised signatory>>

<<Designation>>

Name of the Entity:

Seal:

Date:

**FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK**  
[Solvency Certificate]

This is to certify that to the best of our knowledge and information that M/s./Sh ..... having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement up to a limit of Rs..... (Rupees.....). This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature)  
For the Bank

**NOTE:**

- i. Bankers certificates should be on letter head of the Bank, sealed in cover addressed to tendering authority.
- ii. In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

**FINANCIAL INFORMATION**

I. Financial Analysis – Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five financial years duly certified by the Chartered Accountant, as submitted by the bidder to the Income Tax Department (Copies to be attached).

**TURNOVER FOR LAST THREE FINANCIAL YEARS**

| S. No. | Financial Year | Gross Annual Turnover on Construction Works/ Works Contract (Rs. In Lakhs) | Profit/Loss (Rs. In Lakhs) | Remarks |
|--------|----------------|----------------------------------------------------------------------------|----------------------------|---------|
|        |                |                                                                            |                            |         |
|        |                |                                                                            |                            |         |
|        |                |                                                                            |                            |         |
|        |                |                                                                            |                            |         |
|        |                |                                                                            |                            |         |

II. Financial arrangements for carrying out the proposed work.

III. Solvency Certificate from bankers of the bidder (attached separately in Annexure -VII )

Signature of Chartered Accountant with Seal

Signature of Bidder

List of Similar Works

(To be prepared with the following points for each work carried out)

1. Name of work/Project & location:
2. Name & address of Organization/Firm (for whom the work is carried out):
3. Agreement / Work Order No. and date:
4. Awarded Cost:  
(As per Work Order)
5. Final Completion Value:  
(As per Completion Certificate)
6. Date of start of Work:
7. Date of Completion of Work
  - i. Stipulated date of completion (As per Work Order)
  - ii. Actual date of Completion
  - iii. Extension granted, if any, up to (Specify date)
  - iv. In case of Extension, with or without levy of penalty or
  - v. Applicability of penalty not yet decided
8. Amount of compensation levied for delayed completion, if any
9. Amount of reduced rate items, if any
10. Performance certificate for this work (issued by the authorized signatory of Organization / Firm)

Signature of the Bidder with seal

**COMPLIANCE TO BID REQUIREMENT**

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

**WORK:** “Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years.”

We hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions whatsoever in the BIDDING DOCUMENT for the subject work.

We hereby further confirm that any terms and conditions if mentioned in our bid (Un-priced as well as Priced Part) shall not be recognized and shall be treated as null and void

SIGNATURE OF BIDDER : \_\_\_\_\_

NAME OF BIDDER : \_\_\_\_\_

COMPANY SEAL : \_\_\_\_\_

**FORM OF CERTIFICATE FOR ELIGIBLE SOURCE COUNTRIES**

(To be submitted on Bidder's Letter head)

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

Name of work: "Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years."

I/We, \_\_\_\_\_ (Name of the Bidder) \_\_\_\_\_, have read the NIT clauses regarding restrictions on procurement from a Bidder of a country which shares a land border with India, and I/we am/are not from such a country" or, from such a country (indicate country \_\_\_\_\_), have been registered with Competent Authority and submit a certificate herewith as an evidence of valid registration by the Competent Authority".

I/We hereby certify that I/We am/are fulfilling all requirements in this regard and eligible to be considered, in accordance to tender clauses.

I/We acknowledge the right of the Employer that absence of such a certificate in the bid, if the Bidder belongs to such country stated above, shall disqualify the Bidder.

I/We acknowledge the right of the Employer to terminate the Bidder for false declaration or certificate, along with such other actions as may be permissible under law.

Signature of the Bidder with seal

**Declaration of Local Content**

(To be submitted on letter head of tenderer)

References:

Preference to Make in India including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links

[https://dipp.gov.in/publicprocurementshttp://dipp.nic.in/sites/default/files/publicProcurementMakeinIndia\\_15June2017.pdf](https://dipp.gov.in/publicprocurementshttp://dipp.nic.in/sites/default/files/publicProcurementMakeinIndia_15June2017.pdf)

[http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017\\_28052018.pdf](http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf)

<https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf>

We hereby declare with reference to above subject and references that

M/s ----- (Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services

(or)

"Class-II local Supplier" meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services

(or)

Non-Local supplier (If not belonging to Class-I & Class-II)

Please mention the details against the following:

Enquiry no:----- dated. -----

Type of Supplier (Class-I/Class-II) .....

Product:-----

Project:.....

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s \_\_\_\_\_  
(Signature and seal)

Place:.....

Date:.....

**SITE VISIT REPORT LETTER**

(To be submitted on letter head of Bidder)

To,

The Officer in Charge,  
AMD Headquarters,  
Begumpet, Hyderabad-500016

**Sub: Site visit to AMD Headquarters, Begumpet, Hyderabad-500 016**

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

This has reference to above referred Tender for “Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years.”

I / We hereby declare that we have visited AMD Headquarters, Begumpet, Hyderabad-500016 on \_\_\_\_\_ and I / We made ourselves acquainted with the site conditions, assessed the requirement and quoted accordingly for execution of the above-mentioned work. I / We have understood the project requirements for all the locations of AMD where the work is to be carried out.

Also, I / We have understood the specifications of the above work and agree to abide by the same.

Thanking You.

Yours faithfully,

(Signature of Bidder)

Name of Tenderer \_\_\_\_\_

Designation \_\_\_\_\_

Seal:

**TENDER ACCEPTANCE LETTER**

(To be given on Company Letter Head)

Date :

Sub : Acceptance of Terms & Conditions of Tender.

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

Name of Tender / Work : - "Supply, installation, testing & commissioning for upgradation of Local Area Network (Active & Passive Components) in AMD Headquarter Hyderabad, Six Regional Centres of AMD located at New Delhi, Bengaluru, Jamshedpur, Shillong, Jaipur and Nagpur, sectional office at Thiruvananthapuram and Lab stores at Hyderabad. Integration of supplied devices with existing setup. Warranty with onsite support at the upgraded locations for a period of 3 years."

Dear Sir,

1. I/We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the website(s) namely :

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2. I/We hereby certify that I/We have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / We shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time have also been taken in to consideration, while submitting this acceptance letter.

4. I / We hereby declare that our Firm has not been blacklisted / debarred by any Govt. Department / Public Sector undertaking.

5. I / We certify that all information furnished by our Firm is true & correct and, in the event, that the information is found to be incorrect/untrue or found violated, then your department / organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder with Official Seal)

**FORMAT FOR PRE BID QUERIES**

| <b>Sl.<br/>NO</b> | <b>SECTION</b> | <b>PAGE<br/>NO</b> | <b>CLAUSE</b> | <b>SUBJECT</b> | <b>DESCRIPTION<br/>OF CLAUSE</b> | <b>CLARIFICATION<br/>SOUGHT</b> | <b>AMD<br/>RESPONSE</b> |
|-------------------|----------------|--------------------|---------------|----------------|----------------------------------|---------------------------------|-------------------------|
|                   |                |                    |               |                |                                  |                                 |                         |
|                   |                |                    |               |                |                                  |                                 |                         |
|                   |                |                    |               |                |                                  |                                 |                         |
|                   |                |                    |               |                |                                  |                                 |                         |
|                   |                |                    |               |                |                                  |                                 |                         |

**No Claim Certificate**

(On company Letter-head)

Contractor's Name\_\_\_\_\_

[Address and Contact Details]

Contractor's Reference No.\_\_\_\_\_ Date.....

**No Claim Certificate**

**Sub: Contract/ Agreement no. ----- dated -----**

We have received the sum of Rs. \_\_\_\_\_(Rupees  
\_\_\_\_\_only) as final settlement due to us for the  
above mentioned contract agreement.

We have received all the amounts payable to us with this payment and have no  
outstanding dispute of any description whatsoever regarding the amounts worked out as  
payable to us and received by us.

We hereby unconditionally and without any reservation whatsoever, certify that we shall  
have no further claim whatsoever, of any description, on any account, against AMD,  
under contract above. We shall continue to be bound by the terms and conditions of the  
contract agreement regarding its performance.

Yours faithfully,

Signatures of contractor or officer authorised to sign the contract documents.

on behalf of the contractor

(company Seal)

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

Place:\_\_\_\_\_

**Pre-Receipt for refund of Earnest Money Deposit (EMD)**

Received with thanks from Atomic Minerals Directorate for Exploration and Research, a sum of Rs ...../- (Rs..... only), towards refund of Earnest Money Deposit Paid in respect of Tender for “.....”

Vide Tender No.: .....

Dated .....

(Note : EMD will be returned to unsuccessful Bidder only after finalization of the tender)

| Bank details for refund of EMD |  |
|--------------------------------|--|
| Name of Party                  |  |
| Name of Bank                   |  |
| Account Number                 |  |
| IFSC Code                      |  |

Date:

Place:

Signature of Bidder

Name & Address:

## INFORMATION AND INSTRUCTIONS TO BIDDERS FOR e-TENDERING

### **PART A: GUIDELINES FOR E-TENDERING :- Instructions for Online Bid Submission**

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

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

- 1. The intending bidders must read the terms and conditions of the tender documents. He should submit his bid only if he considers himself eligible and is in possession of all documents required.**
- 2. REGISTRATION**

1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal(URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.
2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India(e.g. Sift/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 other 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.

### **3. INITIAL CRITERIA FOR ELIGIBILITY FOR PRE-QUALIFICATION:**

- i The bidder shall be compliant to the Public Procurement (Preference to Make in India), Order 2017 and amended order dated 16<sup>th</sup> September 2020 or any latest order issued from time to time by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry. Also, the bidder must submit undertaking along with bid for local content of.....% offered in subject tender. In this regard, bidder shall also refer to the DPIIT’s website: <https://dipp.gov.in/public-procurements>.

- ii Only '**Class-I local supplier**' as defined in Public Procurement (**Preference to Make in India**), Order 2017, are eligible to participate for subject tender.

#### **4. SEARCHING FOR TENDER DOCUMENTS**

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

#### **5. PREPARATION OF BIDS**

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

**Note :** *My Documents Space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.*

#### **6. SUBMISSION OF BIDS**

- i. Bids shall be submitted online only at CPPP website:  
<https://eprocure.gov.in/eprocure/app>

- ii. Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- iii. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- iv. Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- v. Bidder should prepare the EMD per the instructions specified in the tender document. The original 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.
- vi. The agency shall download the pre-bid clarification, if any, for the work and upload the same (scanned copy) duly signed and sealed. The revised documents (if any) shall be uploaded in e-tender portal.
- vii. 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 SKY BLUE 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.
- viii. Tenderers are advised to upload their documents well in advance, to avoid last minutes rush on the server or complications in uploading. AMD in any case shall not be held responsible for any type of difficulties during uploading the documents including server and technical problems whatsoever.
- ix. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing the size of the scanned document.
- x. The server time (which is displayed on the bidder’s dash board) 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.
- xi. Submission of tender documents after the due date and time (including extended period) shall not be permitted.
- xii. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subject to asymmetric encryption using buyers/bid

opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- xiii. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
  - xiv. Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all the other relevant details.
  - xv. The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.
  - xvi. Intending Bidders are advised to visit this website regularly till closing date of submission to keep themselves updated as any change/modification in the tender will be intimated through this website only by corrigendum/addendum/amendment.
7. After submission of the bid/documents, the bidder can re-submit revised bid/document any number of times but before last time and date of submission of bid/document as notified.
8. If the agency found ineligible after opening of pre-qualification bid/technical bid, his tender shall become invalid.

**9. ASSISTANCE TO BIDDERS:**

- i. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
  - ii. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
10. EMD: The tenderers are advised to submit the hard copies towards EMD well in advance to the Tender Inviting Authority, so that it should reach on or before the due date and time. Delay in receipt of EMD due to security restriction, postal delay or delay due to any other reasons etc. shall not be accepted and tender shall be rejected forthwith.

## Authorization for Attending Pre-bid Meeting

(on Company Official Letter Head)

Bidder's Name\_\_\_\_\_

[Address and Contact Details]

Date.....

To

Officer-In-Charge

Atomic Minerals Directorate for Exploration and Research

DAE, AMD Complex, 1-10-153 to 156,

Begumpet, Hyderabad 500016

Telangana, India

Ref: Tender No.: AMD/EDISAC/LAN-UPGRADE/2026 Dated: 13/04/2026

Subject: Authorization for attending Pre-bid Meeting on \_\_\_\_\_ (date).

Following persons are hereby authorized to attend the Pre-bid Meeting for the tender mentioned above on behalf of \_\_\_\_\_ (Bidder) in order of preference given below.

| <b>Sr.</b>               | <b>Name</b> | <b>Government Photo ID Type/ Number</b> |
|--------------------------|-------------|-----------------------------------------|
| I.                       |             |                                         |
| II.                      |             |                                         |
| Alternate Representative |             |                                         |

*Note:*

*1. Maximum of two representatives shall be permitted to attend the Pre-bid meeting.*

Signatures of bidder

or

Officer authorized to sign the bid.

Documents on behalf of the bidder

[name & address of Bidder and seal of company]

**Make and Model of the offered items**

| S. No. as per Technical Specification | Item                              | Description                                                | Make and Model of offered item |
|---------------------------------------|-----------------------------------|------------------------------------------------------------|--------------------------------|
| 1.                                    | L3 Switch (Type-1)                | Min. 40 x 10G SFP+                                         |                                |
| 2.                                    | L3 Switch (Type-2)                | Min. 20 x 10G SFP+                                         |                                |
| 3.                                    | L3 Switch (Type-3)                | Min. 12 x 10G SFP+                                         |                                |
| 4.                                    | L2 Managed Access Switch (Type-1) | Min. 24-port<br>10/100/1000BASE-T and<br>Min. 2 x 10G SFP+ |                                |
| 5.                                    | L2 Managed Access Switch (Type-2) | Min. 12-port<br>10/100/1000BASE-T and<br>Min. 2 x 10G SFP+ |                                |
| 6.                                    | SFP+ module                       | 10G SFP+ SR module                                         |                                |
| 7.                                    | Transceivers                      | 1000BASE-T SFP Copper transceiver module                   |                                |
| 8.                                    | Floor Mounted Rack                | 42U                                                        |                                |
| 9.                                    | Wall Mount Rack                   | 15U                                                        |                                |
| 10.                                   | Wall Mount Rack                   | 12U                                                        |                                |
| 11.                                   | Wall Mount Rack                   | 9U                                                         |                                |
| 12.                                   | HDPE Pipe                         | 1 Inch HDPE Pipe 32 mm                                     |                                |
| 13.                                   | PVC Pipe                          | 1 inch                                                     |                                |
| 14.                                   | PVC Pipe                          | 2 inch                                                     |                                |
| 15.                                   | PVC                               | 1-inch PVC Casing & Capping                                |                                |
| 16.                                   | PVC                               | 2-inch PVC Casing & Capping                                |                                |
| 17.                                   | CAT 6 Cable                       | UTP                                                        |                                |
| 18.                                   | CAT 6 Cable                       | STP                                                        |                                |
| 19.                                   | CAT 6 UTP IO                      | CAT 6 IO, Face Plates & SMB (User Side)                    |                                |
| 20.                                   | Patch Panel                       | CAT 6 UTP 24 Port Unloaded                                 |                                |
| 21.                                   | CAT 6 UTP IO                      | CAT 6 UTP IO (Patch Panel Side)                            |                                |
| 22.                                   | Patch Cord                        | CAT 6 UTP Patch Cord                                       |                                |
| 23.                                   | OFC Cable                         | 6 Core multi mode<br>Indoor/Outdoor OFC cable-OM3          |                                |
| 24.                                   | LIU Box                           | Fully loaded LIU Multi mode                                |                                |
| 25.                                   | Fiber Patch cords                 | SC/LC-LC Fiber Patch cords multi mode-OM3                  |                                |

Signature Not Verified

Digitally signed by ANUPAM GOSWAMI  
Date: 2026.04.10 10:28:07 IST  
Location: eProcure-EPROC

