निविदा दस्तावेज़

TENDER DOCUMENT

के लिए

FOR

Supply And Installation of Campus Wide Networking Equipment's Including Upgradation (Active Components)

सी डी एफ डी

CDFD

डी एन ए फिंगरप्रिंटिंग एवं निदान केंद्र

Centre for DNA Fingerprinting and Diagnostics

इनर रिंग रोड, उप्पल, हैदराबाद - 500039

Inner Ring Road, Uppal, HYDERABAD - 500039

(तेलंगाना राज्य) भारत

(Telangana State) India

CENTRE FOR DNA FINGERPRINTING AND DIAGNOSTICS

(An Autonomous Institute of Department of Biotechnology, Ministry of Science and Technology, Govt. of India)

Inner Ring Road, Uppal, HYDERABAD - 500039 (Telangana State) India

Ph. No. 040-27206020/25 Email: pkiran@cdfd.org.in, purchase@cdfd.org.in

निविदा आमंत्रित सूचना

NOTICE INVITING TENDER

No.CDFD/PUR/2023-24/IND18743 **Date:09/08/2023**

Sealed tenders in **TWO BID SYSTEM** are invited on behalf of and by the Director, CDFD for supply and installation of "**Supply and Installation of Campus Wide Networking Equipment's Including Upgradation (Active Components)"**

1. **Scope of work**: Supply and Installation of Campus Wide Networking Equipment Including Upgradation at Lab Campus (Active Components)

2. Interested eligible bidders may download free of cost the complete bidding documents from our website (http://www.cdfd.org.in) as well as from Central Public Procurement (**CPP**) Portal: www.eprocure.gov.in.

3. Earnest Money Deposit / Bid Security: E.M.D. amounting to Rs.1,80,000/- (Rupees One Lakh and Eighty Thousand only) by way of Demand Draft / Bank Guaranteeof a commercial bank in favour of "Director, CDFD" and payable at Hyderabad obtained from any Commercial Bank, should be enclosed alongwith the Technical Bid.

   I. The EMD to be valid for 45 days more from the date of bid opening.
   II. This amount is interest free and will be returned to the unsuccessful bidder after finalization of the Contract within 30 days.
   III. The firms registered with DGS&D & NSIC, if any, are exempted from payment of Earnest Money Deposit (EMD) and enclose thevalid proof along with Quotation.

4. **Tenders shall be submitted in 2-PARTS: (1)** PART – I: Technical Bid; **(2)** PART – II: Price Bid.

   Technical Bid (PART – I) of the Tender must contain the documents as indicated at **Clause No. 10 of Instructions to Bidder**.

   Price Bid (PART – II) of the Tender shall contain only the Price Schedule as per the Price Schedule Format (both in words and figures). The Bidder should ensure that the Prices are mentioned only in the Price Bid and nowhere in the Technical Bids.

   Due Date for Receipt of Tenders: 04.09.2023 @ 3:00 PM
   Due Date for Opening of Tenders: 04.09.2023 @ 4:00 PM

   Price opening date will be e-mailed to venders

   If the above stated opening or closing date(s) happens to be Govt. holiday(s)/BANDH, the submission/opening of the tender will be on thenext working day as per the time scheduled.

5. Bidder shall seal the Technical Bids and Price Bids in two separate envelops duly marked / super-scribed as "Technical Bid (Part-I)" and "PriceBid (Part-II)" – Tender No: IND18743.

   The above two separate sealed covers, one containing the Part-I Technical Bid along with the EMD and the other containing, the Price Bid (Part-II) shall be kept together in another Cover which should also be sealed and super-scribed as above and addressed to the I/c – Bio-informatics, Centre for DNA Fingerprinting and Diagnostics, Inner Ring Road, Uppal, Hyderabad – 500 039 (Telangana).

6. The sealed cover duly super-scribed with Tender **No.CDFD/PUR/2023-24/IND18743 due on** containing Technical bid (Part-I) and Price Bid (Part-II) along with the relevant documents should be dropped in the **Sealed Tender Box kept at the Purchase Section, Cellar, CDFD, Uppal Campus on or Before 04.09.2023 at 3:00 p.m. Tender document at any cost should not be handed over to any persons.**

7. **Bidders sending their quotations through courier / postal services should ensure to send the same well in advance as CDFD does not take any responsibility for late receipt of quotes due to postal / courier delays.**

8. Tenders submitted without EMD will be rejected. Tenders received after due date and time will not be entertained. Institute is not responsible for any postal delay. CDFD does not take any responsibility for loss of Tender in transit sent by courier or any postal delays, Tenders receivedafter the due date and time will be summarily rejected. Incomplete or conditional tenders are liable for rejection.

9. CDFD does not bind itself to accept the lowest or any other tender and reserves the authority to reject any or all tenders without assigning any reason. All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete, in any respect, are also liable to be rejected.

10. All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.

हस्ताक्षर
प्रभारी-भण्डारण एवं क्रय
Sd/-
I/C-Stores & Purchase

अध्याय CHAPTER 1

महत्वपूर्ण नियम और शर्तें IMPORTANT TERMS & CONDITIONS

1. Bidders shall satisfy the requirements of a **Class I Local supplier** and **Class II Local supplier** issued in pursuance of '**Make in India' policy vide Order No.** P-45021/2/2017-PP (BE-II), dated 16th September, 2020 of Ministry of Commerce and Industry, Government of India, as amended from time to time. Bidder may please refer said order dated 16th September, 2020 for further details.

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

'Class – I Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' in the said order dated 16th September, 2020.

'Class – II Local supplier' – means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier' under said order dated 16th September, 2020.

'Non – Local Supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this Order.

Minimum local content: The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50% For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/'Class-II local supplier'. For the items, for which Nodal Ministry/Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for '**Class-I local supplier'/'Class-II local supplier'** respectively.

Note- **Bidder is required to indicate percentage of local content and provide self-certification** the items offered meet the local content requirement for '**Class –I Local Supplier' /'Class – II Local Supplier**' as the case may be. Further, the bidders shall also give details of the **location(s)** at which the local value addition is made. Only 'Class –I Local Supplier' /'Class – II Local Supplier' as defined under said "**Make in India**' order dated **16.09.2020** shall be eligible to submit RC offers. Hence, offers from **'Non – Local Supplier'** or products not complying with the requirement of **Class I Local supplier** and **Class II Local supplier** shall not be considered of issue of RC Contract.

Verification of local content:

a. The 'Class-I local supplier'/'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate 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. They shall also give details of the location(s) at which the local value addition is made.

b. In cases of procurement for a value in excess of Rs. 10 crores, 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) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

c. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.

d. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/accountant's certificates on random basis and in the case of complaints.

e. Nodal Ministries and procuring entities may prescribe fees for such complaints.

f. 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.

g. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9h below.

h. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:

i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry/Department or in some other manner.

ii. On a periodical basis such cases are consolidated and a centralized list of decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);

In respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurements are not disrupted.

2. **ELIGIBLE BIDDERS:** This Invitation for Bids is open to all Original Manufacturers/ their Authorized Dealers/ vendors / suppliers to quote on their behalf for this tender as per Manufacturer's Authorization Form and Indian Agents of Foreign Principals, if any who possess the qualifying requirements as specified in the Tender.

3. Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents tobe used for the procurement of the goods to be purchased under this Invitation of Bids.

4. **OPENING OF BIDS:** In the first instance, the Technical Bids (PART-I) will be opened. All the Tenderers may be required to give a presentation if requested by CDFD. Final selection of the Technical Bids will be based on the Technical Presentation evaluated by the authorities of CDFD. The Price Bid **(PART-II)** will not be opened on the day of opening of Technical Bids. The Bidders representatives whoare present shall sign the Quotation Opening Form evidencing their attendance. The Price Bid of only those tenderers whose Technical Bid(s) are found technically suitable will be opened subsequently. **The Tenderer may kindly note that no payment for attending/ givingpresentation will be made by this Institute.**

5. **CAPACITY OF BIDDER:** any person signing a Tender shall submit documentary evidence that his signature on the Tender, submitted by him, is legally binding upon himself, his firm. If it is detected that the person so signing the Tender has no authority to do so, the Director, CDFD may, without prejudice to other civil and criminal remedies, not consider the Tender and hold the signatory liable for all costs and damages. The bidder shall produce a certificate from the Manufacturer of the offered product that they are the authorized dealer in India. produce a certificate from the Manufacturer of the offered product that they are the authorized dealer in India.

6. The Bidder should be a manufacturer or their dealer specifically authorized by the manufacturer to quote on their behalf of this tender as per manufacturer authorization form and Indian agents of foreign principals, if any who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the "Technical Specification". Such equipments must be of the most recent series/models incorporating the latest improvements in design. The models quoted should be in successful operation for at least one year as on date of Bid Opening in India and is engaged in the day to day usage.

7. The Indian Agents of foreign manufacturers / suppliers quoting directly on behalf of their principals for items appearing in the restricted list of the current Foreign Trade Policy must be registered with DGS&D / Other Govt. Institutes / Ministries / Depts. One Indian Agent cannot represent two different foreign principals for the same item in one tender.

8. **QUALIFICATION CRITERIA:**

a. The Bidder should be a manufacturer or their dealer specifically authorized by the manufacturer to quote on their behalf of this tender as per manufacturer authorization form and Indian agents of foreign principals, if any who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the "Technical Specification". Such equipments must be of the most recent series/models incorporating the latest improvements in design. The models quoted should be in successful operation for at least one year as on date of Bid Opening in India and is engaged in the day to day usage.

b. The Indian Agents of foreign manufacturers / suppliers quoting directly on behalf of their principals for items appearing in the restricted list of the current Foreign Trade Policy must be registered with DGS&D. One Indian Agent cannot represent two different foreign principals for the same item in one tender.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

c. The OEM/Bidder should be in the similar business for the last 5 years and have successfully supplied and executed at least

two similar equipment's costing more than Rs.20,00,000/- each during the preceding 5 financial years. Proof to be enclosed with the quote. **Similar order means "Supply and installation of Network Switches, Router and Firewall etc.".**

d. That, in the case of a Bidder not doing business in India, the Bidder is/or will be (if successful) represented by an Agent in India who shall be equipped and able to carry out the Supplier's maintenance, repairs and spares parts. The bidder or his agent must have an office in India.

e. That the Bidder will assume total responsibility for the fault-free operation of equipment, application software, if any, and maintenance during the warranty period.

f. The bidder should be free from all encumbrances and possess adequate resources for executing the contract in the case it is awarded.

g. Vendor has to install the switches in network racks, do the connectivity and labelling, fiber cabling, racks and patch panels, VLAN configuration, NMS with dashboard providing real-time network health status and automatic fault detection, implantation of IPV6 as per the as per Department of Telecommunications, Ministry of Communications, Government of India recommendations.

h. Vendor has to arrange hands on training (on-site) to the technical staff of CDFD, also, provide a step-by-step hardcopy manual and necessary SOPs to troubleshoot, monitor and manage network in GUI as well as CLI mode.

`

i. or all the process submit a detailed documentation of all switch configuration and serial number and manual etc.

9. **CONTENT OF BIDDING DOCUMENTS:** The goods required, bidding procedures and contract terms are prescribed in the bidding documents. The bidding documents, apart from the invitation for bids have been divided into 6 chapters as under:

a. Chapter 1 :Instructions to Bidder
b. Chapter 2: Detailed Terms & Conditions
c. Chapter 3 :Specifications and Allied Technical Details of the Goods and Services
d. Chapter 4 :Price Schedule Format
e. Chapter 5 :Other Formats

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

10. **CLARIFICATION OF BIDDING DOCUMENTS**: A prospective Bidder requiring any clarification of the Bidding Documents shall contactthe Purchaser in writing. The Purchaser will respond in writing to any request for clarification, provided that such request is received not later than ten (10) days prior to the deadline for submission of bids.

11. **AMENDMENT OF BIDDING DOCUMENTS**: At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.In order to allow prospective bidder's reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of the purchaser.

12. **LANGUAGE OF BID:** The bid prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and the purchaser, shall be written in Hindi/English language only.

13. **DOCUMENTS TO BE ENCLOSED WITH TECHNICAL BID** : **(PART-I)**

i. Bid Form (Bid Submission Covering Letter) (Refer to ANNEXURE-A).
ii. Detailed quotation along with Terms and Conditions.
iii. CDFD Tender document duly signed by the bidder on all the pages
iv. Copy of the Price bid without mentioning the price details.
v. Manufacturer's Authorization Form (Refer to ANNEXURE-B).
vi. Bid Security / EMD (Refer to ANNEXURE-C).
vii. All necessary catalogues/technical literature, data as are considered essential for full and correct evaluation of offers.
viii. Two latest Performance Certificates obtained from the Users (On the letter heads of the Institute) for the similar equipments supplied and installed successfully.
ix. Undertaking for Reasonable Price as per format given at ANNEXURE-E
x. Availability of number of trained support personnel, both application & service support.
xi. Compliance statement indicating yes/no as per CDFD specifications
xii. All necessary catalogues/technical literature, data as are considered essential for full and correct evaluation of offers.
xiii. Availability of number of trained support personnel, both application & service support.
xiv. CDFD Tender document duly signed by the bidder on all the pages.
xv. Check List as ANNEXURE-G.

Note: Your Bid will be rejected if all the above enclosures are not attached with the Technical Bid.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

14. **बोली जमा करने के लिए प्रणाली और विधि MANNER AND METHOD FOR SUBMISSION OF BID :**

a. The bidder is advised to paginate complete bidding documents excluding the CDFD Tender Documents in blue/black pen.

b. The bidder is advised to attach the bid documents as under

i. Bid Covering Letter
ii. Detailed quotation of the bidder with Terms & Conditions and Price bid details
iii. EMD
iv. Firm or VAT or TOT Registration Certificate
v. GST
vi. Two copies of Purchase Order as per eligibility
vii. Financial Status of the Bidder as per Annexure- F (1 Page)
viii. Other documents as indicated above
ix. CDFD Tender Document duly signed and affixing company seal
x. Check List

Please don't enclose the balance sheet copies, Audited Reports, IT Returns etc. and only submit the one page Financial Status duly filled in with Turnover details.

The Page No and enclosures details should be indicated in the Checklist without fail.

15. **BID FORM (Bid Submission Covering Letter)**: The bidder shall use the format as per Annexure-A.

16. **BID PRICES**: The Bidder shall indicate the unit prices, discounts and total bid prices of the goods it proposes to supply.

Prices indicated shall be entered separately in the following manner (For indigenous Items): The Price of the goods, quoted (ex-works, ex-factory, ex-showroom, ex-warehouse, or off-the shelf, as applicable), including all duties and sales and other taxes already paid or payable.

TAXES/DUTIES: We are exempted from payment of Excise Duty vide Notification Number 10/97 dated 01.03.1997 and Customs Duty under notification No.51/96 dated 23.07.1996. Hence Excise duty and Customs Duty, if any, should be shown separately. Please mention the applicable taxes (VAT/CST/Service) clearly. Form 'C' or 'D' cannot be issued by the Purchaser. However, being R&D Institute on Concessional Customs Duty Forms can be issued. No other charges except those mentioned clearly in the quotation will be paid.

Rates should be quoted 'FOR' CDFD, Hyderabad inclusive of packing, forwarding, Customs clearance, installation and commission charges etc. If ex-works prices are quoted then packing, forwarding, documentation, freight and insurance charges must be clearly mentioned separately. Vague terms like "packing, forwarding, transportation, taxes etc. extra" without mentioning the specific amount/percentage of these charges will NOT be accepted.

Prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and may be liable for rejection.

Instrument quoted should be complete in all respects; any additional accessories required for instrument to operate should also be quoted as part of the instrument and should be supplied along with instrument.

NO BIDDER SHOULD QUOTE THE PRICES HIGHER THAN THE MAXIMUM RETAIL PRICES (MRP) INCLUDING ALL CHARGES UP TO CDFD STORES.

17. **BID CURRENCIES:** Prices shall be quoted in Indian Rupees only.

18. **BID SECURITY / EARNEST MONEY DEPOSIT (EMD):** The Bidder shall furnish, as part of its bid, a Bid Security (BS)/ Earnest Money Deposit (EMD) for an amount of Rs.1,80,000/- (Rupees One Lakh and Eighty Thousand only) as specified in the Invitation for Bids. The BS shall be submitted either by the principal or by the Indian agent and in the case of indigenous bidders, the BS shall be submitted by the manufacturer or their authorized dealer. The Bid Security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture. The Bid Security shall be in Indian Rupees for offers received for supply within India or freely convertible currency in the case of offers received for supplies from foreign countries. The bid security shall be in one of the following forms at the bidders' option:

a. A bank guarantee issued by a Nationalized/Scheduled bank/Foreign Bank (Refer to Annexure-C) provided in the bidding documents and valid for 45 days beyond the validity of the bid; or
b. A Banker's cheque or demand draft in favour of Director, CDFD, payable at Hyderabad.

The Bid Security should be submitted in its original format. Copies shall not be accepted.

The Bid Security of unsuccessful bidder will be discharged /returned as promptly as possible but not later than 15 days after the expiration of the period of bid validity or placement of order whichever is later.

The successful Bidder's Bid Security will be discharged upon the Bidder furnishing the performance security.

19. The firms registered with DGS&D & NSIC, if any, are exempted from payment of BS provided such registration includes the item they are offering.

20. The bid security may be forfeited:

a. If a Bidder withdraws or amends or impairs or derogates its bid during the period of bid validity specified by the Bidder; or

b. In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 15 days of the order and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

21. **PERIOD OF VALIDITY OF BIDS**: Bids shall remain valid for 90 days after the date of bid opening prescribed by the Purchaser. In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will not be required nor permitted to modify its bid. Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

22. **FORMAT AND SIGNING OF BIDS**: The bids should be submitted in two parts namely PART-I (Technical Bid) PART-II (Price Bid). TheBidder shall submit the bids in two separate parts. One part shall contain Technical Bid comprising all documents listed under clause relating to Documents Comprising the Bid and except price schedules. The other PART-II (Price Bid) shall contain the price bid comprising price-schedules only. The format of Price Schedule form (Part-II) may be typewritten on the letter head of the bidder withoutchanging the format and submit as Price Bid (Part-II) in a separate envelope.

23. **SUBMISSION, SEALING AND MARKING OF BIDS: Tenders shall be submitted in 2-PARTS:PART-I**

Technical Bid
PART-II Price Bid

Technical Bid (PART-I) of the Tender must contain the documents as indicated in **"DOCUMENTS COMPRISING THE TECHNICAL BID":**

Bidder shall seal the Technical Bids and Price Bids in two separate envelops duly marked / super scribed as Technical Bid (PART-I) and Price Bid (PART-II) – Tender No. **CDFD/PUR/2023-24/IND18743.**

Price Bid (PART-II) of the Tender shall contain only the prices (both in words and figures). The Bidder should ensure that the Prices are mentioned only in the Price Bid and nowhere in the Technical Bids.

The above two separate sealed covers, one containing the Technical Bid (PART-I) along with the EMD, cost of Bidding Document and other documents listed at Clause No: 10 of "Instructions to Bidder" and the other containing, the Price Bid (PART-II) shall be kept together in another Cover which should also be sealed and super-scribed with following details:

TENDER NO: CDFD/PUR/2023-24/IND18743.

This Envelope should be addressed to: The I/c – Stores & Purchase, Centre for DNA Fingerprinting and Diagnostics, Inner Ring Road, Uppal Hyderabad , Telangana -500039. And should be dropped in the Sealed Tender Box kept at the Purchase Section, Cellar, Uppal Campus **onIor before 04.09.2023 @ 3:00 PM**

If the outer envelope is not sealed and marked as indicated above, the Purchaser will assume no responsibility for the bid's misplacement or premature opening or any other consequences arising out of it.

24. Bidders intends to send their bids through courier / postal services should ensure to send the quote well in advance as CDFD never takes any responsibility for the delay in receipt of the bids.

25. The Bidder is required to go through all the Terms & Conditions of the Tender document and sign all the pages as token of acceptance ofhaving read the Terms and Conditions and accepted the same.

26. **DEADLINE FOR SUBMISSION OF BIDS**: Bids must be received by the Purchaser at the address mentioned above not later than the timeand date specified therein. In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bidswill be received up to the appointed time on the next working day. The Purchaser may, at its discretion, extend the deadline for submissionof bids by amending the bid documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

27. **LATE BIDS:** Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser will be rejected. Suchtenders shall be marked as late and not considered for further evaluation. It will be returned to the bidders in their original envelope withoutopening.

28. **WITHDRAWAL, SUBSTITUTION AND MODIFICATION OF BIDS:** A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice and is received by the Purchaser prior to the deadline for submission of bids. No Bid may be withdrawnin the interval between dead-line for submission tender document. Withdrawal bids will be returned to the bidder without opening of the same during the opening of technical bids. However, no withdrawals of Bids are permitted after the Deadline for submission.

29. **CONFIDENTIALITY:** Information relating to the examination, evaluation, comparison and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until placement of the Order.

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

31. **PRELIMINARY EXAMINATION**: The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in have been provided, required sureties have been furnished, and to determine the completeness of each document submitted.The Purchaser will examine the technical bids to determine whether they are complete, whether the documents have been properly signed,and whether the bids are generally in order.

32. If the Bidders have put in Specific conditions not enclosed, all the documents / data requested in the tender and not submitted the Tender in the manner as indicated may be liable for rejection.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

33. **EVALUATION & COMPARISON OF BIDS:** For the bids surviving the technical evaluation which have been found to be responsive the evaluation & comparison shall be made as under:

The final landing cost of purchase after all discounts, freight, forwarding, insurance warehouse to warehouse, custom clearing charges, all duties, taxes etc. shall be the basis of evaluation.

Imported Vs. Indigenous Offers: The final landing cost (ware house to ware house) of purchase taking into account, freight, forwarding, insurance, taxes etc. CIF/CIP with customs clearance charges, Bank/LC charges, transportation up to CDFD, Hyderabad shall be the basis of evaluation.

Conditional tenders/discounts etc. shall not be accepted. Rates quoted without attached conditions (viz. Discounts having linkages to quantity, payment terms etc.) will only be considered for evaluation purpose. Thus conditional discounted rates linked to quantities and prompt/advance payment etc. will be ignored for determining inter-se position. The Purchaser however reserves the right to use the discounted rate/rates considered workable and appropriate for counter offer to the successful tenderers.

Arithmetical errors in the financial bids will be rectified on the following basis:

- If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
- If the supplier does not accept the correction of errors, its bid will be rejected.
- If there is a discrepancy between the price quoted in words and figures, the **rate quoted in words will be taken as final** and shall be binding on the Bidder.

34. **CONVERSION TO SINGLE CURRENCY** : To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspaper / Bank Website on the date of Price Bid opening.

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

36. **AWARD CRITERIA**: The Purchaser will place the order on the lowest evaluated Bidder. In exceptional cases, the Director, CDFD reservethe right to award the order on any other Bidder based on the recommendations of Expert Committee Constituted for the Evaluation of the this Tender.

37. **PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS :** The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

38. **PERFORMANCE SECURITY**: Within 21 days of receipt of the Purchase Order, the Supplier shall furnish Performance Security for 3% of the Order value in the form of Demand Draft / Bank Guarantee to be valid for 60 days after the warrantee / extended warrantee period. The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries. In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either themanufacturer or their dealer/bidder.

The Letter of Credit will be opened after receipt of 3% of the Performance Guarantee valid for 60 days beyond the Warrantee period. The

Performance security shall be in one of the following forms:

I) A Bank guarantee issued by a Nationalized/Scheduled bank located in India or a bank located abroad as per the ANNEXURE-D.

II) The Performance security may also be in the form of Banker's cheque or Account payee demand draft in favour of Director, CDFD, Hyderabad

The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations.

39. **PURCHASER'S RIGHT TO VARY QUANITITIES AT THE TIME OF AWARD**: The Purchaser reserves the right at the time of award of Contract to increase or decrease the quantity of goods and services originally specified in the Tender documents without any change in unitprice or other terms and conditions.

40. **UNSOLICITED POST BID MODIFICATION**: No suo-moto reduction in prices quoted by bidder shall be permitted after tender submission due date & time / extended due date & time. If any bidder unilaterally reduces the prices quoted by him in his bid after opening of bids, thebid(s) of such bidder(s) will be liable to be rejected. Such reduction shall not be considered for comparison of prices but shall be binding onthe bidder in case he happens to be a successful bidder for placement of Order.

41. **ORDER ACCEPTANCE:** The successful bidder should submit acceptance of the Purchase Order immediately but not later than 15 days inany case from the date of issue of the Purchase Order failing which it shall be presumed that the supplier is not interested and his bid security is liable to be forfeited.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

42. **JOINT VENTURE, CONSORTIUM OR ASSOCIATION: If** the Supplier is a joint venture, consortium, or association, all of the parties shall

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

43. **STANDARDS**: The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin andsuch standards shall be the latest issued by the concerned institution.

44. **DISQUALIFICATION OF TENDERS:**

- Tenders are liable for rejection if they are not in line with the terms and conditions of this tender notice.
- Conditional quotations will be liable for rejection or may not be considered.
- Fax or e-mail tender documents /bids will be rejected.
- Submission of Single Bid as against Two Bid System or Quotes submitted in Email/fax will be rejected.
- The Bidder should ensure that the prices are mentioned only in the Price Bid (Part-II) and nowhere in the Technical Bids (Part-I)

45. **FRAUD AND CORRUPTION**: The purchaser requires that the *bidder's* suppliers and contractors observe the highest standard of ethicsduring the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

"Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution; "Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract; "Collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, noncompetitive levels; and "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.

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

बोलीदाता का हस्ताक्षर
Sign. of Bidder

CHAPTER 2

DETAILED TERMS AND CONDITIONS

1. **DEFINITIONS :** In this Contract, the following terms shall be interpreted as indicated: The following words and expressions shall have the meanings hereby assigned to them:

   a) "Contract Price" means the price payable to the Supplier as specified in the Purchase Order, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.

   b. "Day" means calendar day.

   c. "Completion" means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Purchase Order.

   d. "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser as per the Purchase Order.

   e. "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, commissioning, training and initial maintenance and other such obligations of the Supplier as per the Purchase Order.

   f. "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Purchase Order.

   g. The final destination," where applicable, means the place of delivery as indicated in the Purchase Order.

2. **SUPPLIER'S RESPONSIBILITIES:** The Supplier shall supply all the Goods and Related Services included in the Scope of Supply and the Delivery and Completion Schedule, as per Purchase Order Terms.

3. **SUB-CONTRACTS:** The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract. Sub-contract shall be only for bought-out items and sub-assemblies.

4. **CONTRACT PRICE:** Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Purchase Order shall not vary from the prices quoted by the Supplier in its bid.

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

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

7. **INSPECTIONS AND TESTING**: The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services. or as discussed during the course of finalizing the contract. The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data -shall be furnished to the inspectors at no charge to the Purchaser.

8. **PACKING**: The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
   In order to maintain safety of the equipment, we prefer to have wooden crating with adequate cushion inside for transportation of any goods. The Material to be dispatched with International standard packing to withstand Rigors, and to avoid any transit damages.

9. **PACKING INSTRUCTIONS:** Each package will be marked on three sides with proper paint/indelible ink, the following:
   i. Purchaser Name & Address
   ii. Item Nomenclature
   iii. Order/Contract No.
   iv. Country of Origin of Goods
   v. Packing list reference number

10. **DELIVERY AND DOCUMENTS**: Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the Purchase Order.

11. The supplier shall fax or email the details of the shipment to the purchaser with a copy to the Clearing Agent. The following scanned documents are to be emailed at: punitha@cdfd.org.in and purchase@cdfd.org.in and bioinfo@cdfd.org.in and akmahato@cdfd.org.in and confirm its receipt by the purchaser.

    i. Airway Bill / Bill of Lading;
    ii. Invoice
    iii. Packing list

बोलीदाता का हस्ताक्षर
Sign. of Bidder

The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

12. Please note that as per the revised guidelines issued by Customs Notification No.26/2017, the free

time allowed is 48 hours and penalty will be imposed for late clearence.

13. If there is a delay in forwarding the Airway Bill, Invoice, packing list before 72 hours prior to arrival of the cargo, the penalty charged by the Customs Department will be recovered from your bill and the balance will be payable.

Please make appropriate commitments in writing that the instrument model being offered is current and is not likely to be obsolete within the next couple of years and that spare parts will be available for it for at least seven years after the installation. The Installation of the equipment is deemed complete only after all the sub-units of the main equipment such as the computers/printers/UPS/Software etc., is installed and tested as per the specifications in the offer/ broucher / purchase order and demonstrated to the satisfaction of the end user.

14. **INSURANCE**: The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "**Warehouse to warehouse**" (final destinations) on "All Risks" basis including war Risks and Strikes. The insurance shall be valid for a period of not **less than 3 months after installation and commissioning**. However, in case of orders placed on FOB/FCA basis, the purchaser shall arrange insurance.

15. **TRANSPORTATION**: Where the Supplier is required under the Contract to deliver the Goods on FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier.. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof may be included in the Price Schedules.

Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof maybe included in the Price Schedules.

In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, shall be arranged by the Supplier, and the related costs may be included in the Contract Price.

16. **INCIDENTAL SERVICES**: The supplier may be required to provide any or all of the services, as discussed during the course of finalizing the contract. User and detailed Service Manual to be supplied along with the equipment.

a) **SPARE PARTS**: The Supplier shall be required to provide the spare part details/materials, notifications, and information pertaining to its manufacture or distribution: Such spare parts as the Purchaser may elect to purchase from the Supplier, providingthat this election shall not relieve the Supplier of any warranty obligations under the Contract; and

(b) In the event of termination of production of the spare parts:

i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed Requirements if any; and
ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

17. **WARRANTY:** The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The Warrantee should be comprehensive and on site.

- The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- The warranty shall remain valid for 60 months / 5 years from the date of installation of the equipment or as per the Specification whichever is higher. **The warrantee Certificate should be handed over to CDFD after the installation is completed.**
- The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- Upon receipt of such notice, the Supplier shall, within a reasonable period of time expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- **During the period of warranty any component or spare part is to be brought from abroad, all associated costs shall be borne by the supplier including the customs duty charges.**
- The defective material / goods originally imported will not be handed over to the supplier and the same will be re-exported to the place of manufacturer at the cost of the supplier. In case, the manufacturer has the office in India the same may be handed over to them with an undertaking that they will re-export to their manufacturing facility within a reasonable time and submit the proof to that extent.
- If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- **If the defective material / goods originally supplied indigenously, the same will be handed over to the supplier after replacement of the material under warrantee period and not before the replacement**.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

18. **TERMS OF PAYMENT**: Our rules do not permit any advance payment either direct or through a bank. However, payment of your bill will be made within 30 working days after receipt of the articles in good condition by way of Foreign Demand Draft (FDD) or Wire Transfer or on Sight Draft basis. Alternatively, 100% Order value will be opened by way of Confirmed Irrevocable Letter of Credit. 85% of the L/C valuewill be released against receipt of complete shipping documents and the balance 15% value will be released after successful installation acceptable to CDFD within 3 months.

    The foreign supplier should accept CDFD standard Letter of Credit terms which will be forwarded for confirmation before establishing the LC.

19. Agency commission, if any shall be paid after satisfactory installation & commissioning of the goods at the destination at the exchange rate prevailing on the date of negotiation of LC documents. The Agency Commission if any will be payable against submission of valid DGS&D Registration Certificate.

20. **All banking charges outside India will be borne by the supplier and inside India charges will be borne by the purchaser.**

21. **AMENDMENTS:** The Purchaser may at any time, by written order given to the Supplier make changes within the general scope of the Contract as mutually agreed terms.

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

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

    Except as provided under the Force Majeure clause, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

24. **PENALTY CLAUSE**: Subject to clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Purchase order, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 0.5 percent of the order value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of 10 Percent. Once the maximum is reached, the Purchaser may consider termination of the Contract for Default.

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

    a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser

    (b) If the Supplier fails to perform any other obligation(s) under the Contract.

    (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices.

    In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:

    a. The Performance Security is to be forfeited;
    b. The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.

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

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

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

    In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall bereferred to the Director, CDFD and if he is unable or unwilling to act, to the sole arbitrator so appointed shall be final conclusive and binding on all parties to this order.

    In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

    The Venue of the arbitration shall be the place from where the order is issued.

29. **APPLICABLE LAW**: The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

30. **NOTICES:** Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing and confirmed to the other party's address specified in the Purchase Order.

31. **SITE PREPARATION AND INSTALLATION:** The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if applicable, needed for installation, of the goods at the purchaser's site immediately after placement of Purchase Order.

32. **TAXES AND DUTIES:** Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the ordered Goods to the Purchaser at the final destination. However, VAT in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in order.

33. Commercial Invoice produced by Reprographic system or automated computerized system marked as original not acceptable.

34. Please re-check the prices, terms and conditions and other important terms of your offer before submission as you are bound to accept the same in case your offer is evaluated as Lowest Bid.

35. CDFD will not entertain any typographical errors / mistakes made by the bidder in their quote as the evaluation of the bids is done based on the bid submitted as on the due date and no change of prices or any terms and conditions will be considered under any circumstances.

DECLARATION

I/We_____have read the entire terms and conditions of this Tender document and are agreeable to the terms and conditions mentioned herein.

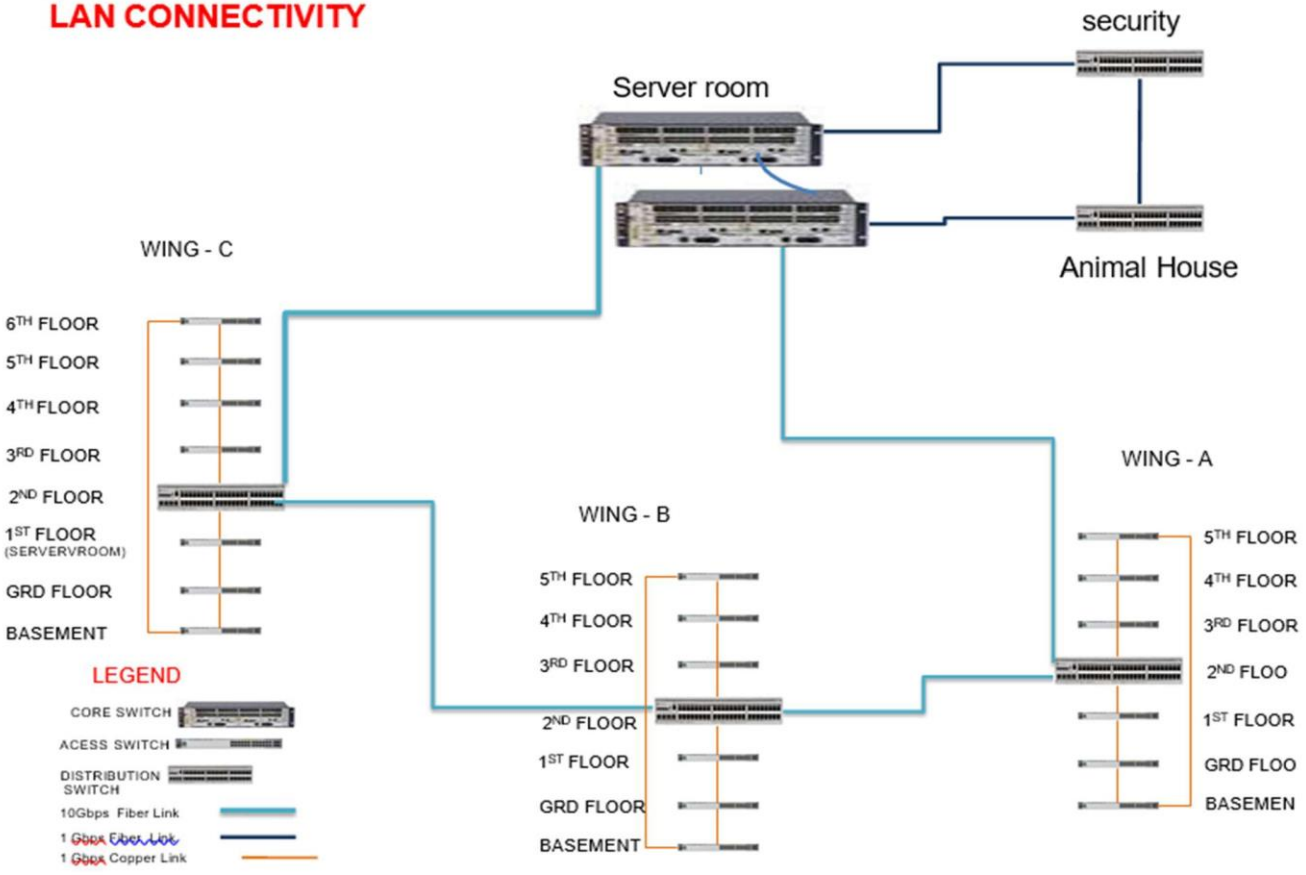
Sign. of Bidder

Name:

Company Seal:

Technical Specifications

LAN CONNECTIVITY



Network Active Components

	Core Layer Switches – (Server Room)	**02 no's**
Sl.No.	**Specification**	**Compliance Yes/No**
General Features		
	Non-blocking architecture	
	Total RU: 1 RU maximum	
	Power-redundancy with hot swap (in-service) capabilities	
	AC & DC power supply	
	Copper and fiber (SFP) transceiver hot swap capability	
	Minimum of 24 ports 10/100/1000 BaseT RJ45	
	Minimum of 4 SFP+ ports (1G/10Gbps)	
	The above minimum port count requirements cannot becombo ports. All ports must be capable to operate simultaneously	
	MACsec support on 4 SFP+ ports (1G/10Gbps)	
	Stack (virtual chassis) up to 8 elements (manageable with single IP address) with dedicated ports to build stack or virtualchassis	
	Minimum two dedicated stacking ports (virtualization)supporting a minimum stacking aggregation throughput of 80Gbps	
	Minimum raw fabric throughput capacity (Gbps): 224 Gbps	
	Minimum forwarding capacity (Mpps): 154 Mpps	
	Operating Temperature: 0 ° C to 45 ° C	
	Humidity (operation): 5% to 95% non-condensing	
	Maximum power consumption (idle) of 38.9W	
	Maximum power consumption (full load) of 48W	
	Minimum MTBF of 353,806 h	
Resiliency and high availability functionalities		
	Unified management & control	
	Virtual chassis technology	
	Virtual Chassis 1+N redundant supervisor manager	
	Virtual Chassis In-Service Software Upgrade (ISSU)	
	Split Virtual Chassis protection	
	IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) encompasses IEEE 802.1D Spanning Tree Protocol (STP) andIEEE 802.1w Rapid Spanning Tree Protocol (RSTP)	
	Per-VLAN spanning tree (PVST+)	
	1x1 STP mode	
	IEEE 802.3ad/802.1AX Link Aggregation Control Protocol(LACP) and static LAG groups across modules	
	Virtual Router Redundancy Protocol (VRRP) with tracking capabilities	
	IEEE protocol auto-discovery	
	Bidirectional Forwarding Detection (BFD) for fast failure detection and reduced re-convergence times in a routed environment	
	Redundant and hot-swappable power supplies	
	Built-in CPU protection against malicious attacks	
Layer-3 IPv4 routing protocols and features		
	Multiple Virtual Routing and Forwarding (VRF) instances	
	Static routing	

	Routing Information Protocol (RIP) v1 and v2	
	Open Shortest Path First (OSPF) v2 with Graceful Restart	
	Intermediate System to Intermediate System (IS-IS) with Graceful Restart	
	Border Gateway Protocol (BGP) v4 with Graceful Restart	
	Generic Routing Encapsulation (GRE) and IP/IP tunneling	
	Virtual Router Redundancy Protocol (VRRPv2)	
	DHCP relay (including generic UDP relay)	
	Address Resolution Protocol (ARP)	
	Policy-based routing and server load balancing	
	DHCP V4 server	
Layer-3 IPv6 routing protocols and features		
	Multiple Virtual Routing and Forwarding (VRF) instances	
	Internet Control Message Protocol version 6 (ICMPv6)	
	Static routing	
	Routing Information Protocol Next Generation (RIPng)	
	Open Shortest Path First (OSPF) v3 with Graceful Restart	
	Intermediate System to Intermediate System (IS-IS) with Graceful Restart	
	Multi-Topology IS-IS	
	BGP v4 multiprotocol extensions for IPv6 routing (MP-BGP)	
	Graceful Restart extensions for OSPF and BGP	
	Virtual Router Redundancy Protocol version 3 (VRRPv3)	
	Neighbor Discovery Protocol (NDP)	
	Policy-based routing and server load balancing	
	DHCPv6 server	
	DHCPv6 relay & UDPv6 relay	
	Generic Routing Encapsulation (GRE) and IP/IP tunneling	
IPv4/IPv6 multicast protocols and features		
	IGMPv1/v2/v3 snooping and Multicast Listener Discovery (MLD) v1/v2 for fast client joins and leaves of multicast streams and limit bandwidth-intensive video traffic to only the requestors	
	Protocol Independent Multicast – Sparse- Mode (PIM-SM), Source Specific Multicast (PIM-SSM)	
	Protocol Independent Multicast – Dense-Mode (PIM-DM), Bidirectional Protocol Independent Multicast (PIM-BiDir)	
	Distance Vector Multicast Routing Protocol (DVMRP)	
	PIM to DVMRP gateway support	
Layer-2 switching and services		
	Ethernet services support using IEEE 802.1ad Provider Bridges (also known as Q-in-Q or VLAN stacking)	
	Ethernet OAM (802.1ag): Connectivity Fault Management (L2 ping & Link trace)	
	Ethernet in First mile: Link OAM (802.3ah)	
	Fabric virtualization services IEEE 802.1aq Shortest Path Bridging (SPB-M)	
	In-band management for IEEE 802.1aq (SPB-M)	
	Ethernet network-to-network interface (NNI) and user network interface (UNI)	
	Service VLAN (SVLAN) and Customer VLAN (CVLAN) support	
	Service Access Point (SAP) profile identification (ID) defining values for	

	ingress bandwidth sharing, rate limiting, CVLAN tag processing (translate or preserve), and priority mapping (inner to outer tag or fixed value).	
	VLAN translation and mapping including CVLAN to SVLAN	
	Port Mapping controlling communication between peer users	
	DHCP Option 82: Configurable relay agent information	
	Multiple VLAN Registration Protocol (MVRP)	
	High Availability (HA) -VLAN allowing for sending traffic to send traffic intended for a single destination MAC address to multiple switch ports for Layer 2 clusters such as MS-NLB and active-active Firewall clusters	
	Private VLANs	
	Jumbo frame	
	Bridge Protocol Data Unit (BPDU) blocking	
	STP Root Guard	
Security features		
	Autosensing IEEE 802.1X multiclient, multi-VLAN support	
	MAC-based authentication for non-IEEE 802.1X hosts	
	Web based authentication (captive portal): a customizable web portal residing on the switch	
	Dynamically providing pre-defined policy configuration to authenticated clients — VLAN, ACL, BW	
	Secure Shell (SSH) with public key infrastructure (PKI) support	
	Terminal Access Controller Access- Control System Plus (TACACS+) client	
	Centralized Remote Access Dial- In User Service (RADIUS) and Lightweight Directory Access Protocol (LDAP) administrator authentication	
	Learned Port Security (LPS) or MAC address lockdown	
	Access Control Lists (ACLs); flow based filtering in hardware (Layer 1 to Layer 4)	
	DHCP v4 & v6 Snooping, DHCP IP and Address Resolution Protocol (ARP) spoof protection	
	DHCPv6 guard and DHCPv6 Client Guard	
	ARP poisoning detection	
	IP v4 & v6 Source Filtering as a protective and effective mechanism against ARP attacks	
	Role-based authentication for routed domains	

Quality of Service (QoS) features		
	Eight hardware based queues per port for flexible QoS management	
	Flow-based QoS	
	Flow-based traffic policing and bandwidth management	
	32-bit IPv4/128-bit IPv6 non contiguous mask classification	
	Egress traffic shaping	
	DiffServ architecture	
	Support for end- to-end head-of-line (E2EHOL) blocking prevention	
	IEEE 802.3x Flow Control (FC)	
Data Center and network transport features:		
	Dynamic Virtual Network Profiles (vNP) defining network access based on profile criteria (instead or mac address, IP addres or port)	
	IEEE 802.1aq Shortest Path bridging (SPB-M)	
	Virtual eXtensible Local Area Network (VXLAN)	
Software Defined Networking (SDN) Features		
	Programmable RESTful API	
	Fully programmable OpenFlow 1.3.1 and 1.0 agent for controlof native OpenFlow and hybrid ports	
	OpenStack networking plug-in	
ITU-T recommendations:		
	ITU-T G.8032/Y.1344 2010: Ethernet Ring Protection (ERPv2)	
	ITU-T Y.1731 OA&M fault and performance management	
Voice, video and data converged network		
	Session Initiation Protocol (SIP) detection, session monitoring and tracking	
	Provides real-time conversation quality information contained in the SIP packets concerning packet loss, delay, jitter, MOS score, R-Factor in real time	
	SIP profile for QOS, priority tuning for end-to-end processing	
	Multicast DNS Relay: Bonjour protocol support for wired Airgroup	
Management features:		
	Powerful WebView Graphical Web Interface via HTTP and HTTPS over IPv4/IPv6	
	The equipment can work in a “thin client” mode. In this mode no configuration can be saved in the “Running” directory of the switch. A basic configuration with minimal network reachability configuration is	
	stored on the switch running directory. The finalconfiguration of a thin client is pushed by a Network Management System (NMS).	
	Must support hitless upgrade of IP services	

	Access Layer Switches	**35 No's**
Sl.No.	Specification	Compliance Yes/No
General Features		
	Non-blocking architecture, Total RU: 1 RU maximum	
	Power Supply must be internal and integrated into the switch.	
	SFP`s Hot Swap	
	Minimum of 24 ports 10/100/1000 Base T RJ45, 2 SFP+ ports (1/10Gbps) for Uplink or VFL, Minimum of 2 1000BaseT/SFP combo ports	
	The switch MUST be Fanless	
	Stack up to 4 elements (Single Management IP)	
	Minimum switching capacity of 92Gbps	
	Switch capacity with all ports (full-duplex + VFL) of 92Gbps	
	Minimum VFL (aggregated) of 40Gbps	
	Minimum Processing Capacity (Mpps): 68.5Mpps	
	Operating Temperature: 0°C to 45°C	
	Humidity (operation): 5% to 95% non-condensing	
	Minimum power supply efficiency (max load) of 87.3%	
	Minimum MTBF (hours) @ 25ºC: 2.595.000	
	Maximum system power consumption idle of 21W	
	Maximum system power consumption 100% traffic all ports of 24W	
Resiliency and high availability functionalities		
	Unified management, control and virtual chassis technology	
	Virtual Chassis 1+N redundant supervisor manager	
	Virtual Chassis In-Service Software Upgrade (ISSU)	
	Split Virtual Chassis protection	
	IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) encompasses IEEE 802.1D Spanning Tree Protocol (STP) and IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)	
	Per-VLAN spanning tree (PVST+) and 1x1 STP mode	
	IEEE 802.3ad/802.1AX Link Aggregation Control Protocol (LACP) and static LAG groups across modules	
	Virtual Router Redundancy Protocol (VRRP) with tracking capabilities	
	IEEE protocol auto-discovery	
	Bidirectional Forwarding Detection (BFD) for fast failure detection and reduced re-convergence times in a routed environment.	
	Redundant and hot-swappable power supplies	
	Built-in CPU protection against malicious attacks	
L3 protocols and features.		
	Static routing for IPv4 and IPv6	
	Up to 64 IPv4 and 4 IPv6 static routes	
	Up to 32 IPv4 and 4 IPv6 interfaces	
L2 capabilities		
	Up to 16k MAC Addresses	
	Up to 4000 VLANs	
	Up to 1.5k total system policies	
	The switch latency: < 4 µs	
	Max Frame: 9216 bytes (jumbo)	
Multicast protocols and features		
	IGMPv1/v2/v3 snooping to optimize multicast traffic.	
	Multicast Listener Discovery (MLD) v1/v2 snooping+	
	Up to 1000 multicast groups	
Security features.		
	Autosensing IEEE 802.1X multi-client, multi-VLAN support	
	MAC-based authentication for non-IEEE 802.1X hosts	

	Web based authentication (captive portal): a customizable web portal residing on the switch.	
	Dynamically provide pre-defined policy configuration to authenticated clients — VLAN, ACL, BW	
	User Network Profile (UNP) simplifies NAC by dynamically providing pre-defined policy configuration to authenticated clients — VLAN, ACL, BW	
	Secure Shell (SSH) with public key infrastructure (PKI) support	
	Terminal Access Controller Access- Control System Plus (TACACS+) client	
	Centralized Remote Access Dial- In User Service (RADIUS) and Lightweight Directory Access Protocol (LDAP) administrator authentication	
	Centralized RADIUS for device authentication and network access control authorization	
	Learned Port Security (LPS) or MAC address lockdown.	
	Access Control Lists (ACLs); flow-based filtering in hardware (Layer 1 to Layer 4)	
	DHCP Snooping, DHCP IP and Address Resolution Protocol (ARP) spoof protection.	
	ARP poisoning detection	
	IP Source Filtering as a protective and effective mechanism against ARP attacks	
	Role-based authentication for routed domains	
	BYOD provides on-boarding of guest, IT/non-IT issued and silent devices; restriction/remediation of traffic from non-compliant devices. RADIUS CoA dynamically enforces User Network Profiles based on authentication,	
	profiling, posture check of devices using Unified Policy Access Manager (UPAM)	
Quality of Service (QoS) features		
	Priority queues: Eight hardware-based queues per port for flexible QoS management	
	Traffic prioritization: Flow-based QoS with internal and external (a.k.a., remarking) prioritization.	
	Bandwidth management: Flow-based traffic policing and bandwidth management, ingress rate limiting; egress rate shaping per port.	
	Queue management: Configurable scheduling algorithms — Strict Priority Queuing (SPQ), Weighted Round Robin (WRR)	
	Congestion avoidance: Support for End- to-End Head-Of-Line (E2EHOL) Blocking Protection	
	Auto QoS for switch management traffic	
Software Defined Networking (SDN) features.		
	Fully programmable RESTful web services interface with XML and JSON support. API enables access to CLI and individual mib objects.	
Switch Management and Operation features		
	Intuitive CLI in a scriptable BASH environment via console, Telnet, or Secure Shell (SSH) v2 over IPv4/IPv6	
	Powerful Web View Graphical Web Interface via HTTP and HTTPS over IPv4/ IPv6+	
	File upload using USB, TFTP, FTP, SFTP, or SCP using IPv4/IPv6	
	Human-readable ASCII-based configuration files for off-line editing, bulk configuration, and out-of-the-box auto-provisioning	
	Multiple OS image support with fallback recovery	
	Dynamic Host Configuration Protocol (DHCP) relay for IPv4/IPv6	
	DHCPv4 and DHCPv6 server	

	Loopback IP address support for management	
	Policy- and port-based mirroring	
	Remote port mirroring	
	sFlow v5 and Remote Monitoring (RMON)	
	The switch can work in a“thin client” mode. In this mode no configuration can be saved in the “Running” directory of the switch. A basic configuration with minimal network reachability configuration is stored on the switch running directory. The final configuration of a thin client is pushed by a Network Management System (NMS).	
Industry Certifications		
	FCC, EN 50581, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, EN 60825-1, EN 60825-2	

	Access Layer PoE Switches	12 No's
Sl.No.	**Specification**	**ComplianceYes/No**
General Features		
	Non-blocking architecture	
	Total RU: 1 RU maximum	
	Power Supply must be internal and integrated into the switch.	
	SFP`s Hot Swap	
	Minimum of 24 ports 10/100/1000 Base T RJ45 with PoE+,2 SFP+ ports (1/10Gbps) for Uplink or VFL,Minimum of 2 1000BaseT/SFP combo ports	
	The switch MUST be Fanless	
	Stack up to 4 elements (Single Management IP)	
	Minimum switching capacity of 92Gbps	
	Minimum switch capacity with all ports (full-duplex + VFL) of 92Gbps	
	Minimum VFL (aggregated) of 40Gbps	
	Minimum Processing Capacity (Mpps): 68.5 Mpps	
	Operating Temperature: 0°C to 45°C	
	Humidity (operation): 5% to 95% non-condensing	
	Minimum power supply efficiency (max load) of 93.5%	
	Minimum MTBF (hours) @ 25ºC: 1.447.000	
	Maximum system power consumption idle of 21W	
	Maximum system power consumption 100% traffic all ports of 28W	
	Minimum PoE Budget of 180W	
Resiliency and high availability functionalities		
	Unified management, control and virtual chassis technology	
	Virtual Chassis 1+N redundant supervisor manager	
	Virtual Chassis In-Service Software Upgrade (ISSU)	
	Split Virtual Chassis protection	
	IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) encompasses IEEE 802.1D Spanning Tree Protocol (STP) and IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)	
	Per-VLAN spanning tree (PVST+) and 1x1 STP mode	
	IEEE 802.3ad/802.1AX Link Aggregation Control Protocol (LACP) and static LAG groups across modules	
	Virtual Router Redundancy Protocol (VRRP) with tracking capabilities	
	IEEE protocol auto-discovery	

	Bidirectional Forwarding Detection (BFD) for fast failure detection and reduced re-convergence times in a routed environment.	
	Redundant and hot-swappable power supplies	
	Built-in CPU protection against malicious attacks	
L3 protocols and features.		
	Static routing for IPv4 and IPv6	
	Up to 64 IPv4 and 4 IPv6 static routes	
	Up to 32 IPv4 and 4 IPv6 interfaces	
L2 capabilities		
	Up to 16k MAC Addresses	
	Up to 4000 VLANs	
	Up to 1.5k total system policies	
	The switch latency: < 4 µs	
	Max Frame: 9216 bytes (jumbo)	
Multicast protocols and features		
	IGMPv1/v2/v3 snooping to optimize multicast traffic.	
	Multicast Listener Discovery (MLD) v1/v2 snooping+	
	Up to 1000 multicast groups	
Security features.		
	Autosensing IEEE 802.1X multi-client, multi-VLAN support	
	MAC-based authentication for non-IEEE 802.1X hosts	
	Web based authentication (captive portal): a customizable web portal residing on the switch.	
	Dynamically provide pre-defined policy configuration to authenticated clients — VLAN, ACL, BW	
	User Network Profile (UNP) simplifies NAC by dynamically providing pre- defined policy configuration to authenticated clients — VLAN, ACL, BW	
	Secure Shell (SSH) with public key infrastructure (PKI) support	
	Terminal Access Controller Access- Control System Plus (TACACS+) client	
	Centralized Remote Access Dial- In User Service (RADIUS) and Lightweight Directory Access Protocol (LDAP) administrator authentication	
	Centralized RADIUS for device authentication and network access control authorization	
	Learned Port Security (LPS) or MAC address lockdown.	
	Access Control Lists (ACLs); flow-based filtering in hardware (Layer 1 to Layer 4)	
	DHCP Snooping, DHCP IP and Address Resolution Protocol (ARP) spoof protection.	
	ARP poisoning detection	
	IP Source Filtering as a protective and effective mechanism against ARP attacks	
	Role-based authentication for routed domains	
	BYOD provides on-boarding of guest, IT/non-IT issued and silent devices; restriction/remediation of traffic from non-compliant devices. RADIUS CoA dynamically enforces User Network Profiles based on authentication,	

	profiling, posture check of devices using Unified Policy Access Manager (UPAM)	
Security features.		
	Priority queues: Eight hardware-based queues per port for flexible QoS management	
	Traffic prioritization: Flow-based QoS with internal and external (a.k.a., remarking) prioritization.	
	Bandwidth management: Flow-based traffic policing and bandwidth management, ingress rate limiting; egress rate shaping per port.	
	Queue management: Configurable scheduling algorithms — Strict Priority Queuing (SPQ), Weighted Round Robin (WRR)	
	Congestion avoidance: Support for End- to-End Head-Of-Line (E2EHOL) Blocking Protection	
	Auto QoS for switch management traffic	
Quality of Service (QoS) features		
	Priority queues: Eight hardware-based queues per port for flexible QoS management	
	Traffic prioritization: Flow-based QoS with internal and external (a.k.a., remarking) prioritization.	
	Bandwidth management: Flow-based traffic policing and bandwidth management, ingress rate limiting; egress rate shaping per port.	
	Queue management: Configurable scheduling algorithms — Strict Priority Queuing (SPQ), Weighted Round Robin (WRR)	
	Congestion avoidance: Support for End- to-End Head-Of-Line (E2EHOL) Blocking Protection	
	Auto QoS for switch management traffic	
Software Defined Networking (SDN) features.		
	Fully programmable RESTful web services interface with XML and JSON support. API enables access to CLI and individual mib objects.	
Switch Management and Operation features		
	Intuitive CLI in a scriptable BASH environment via console, Telnet, or Secure Shell (SSH) v2 over IPv4/IPv6	
	Powerful WebView Graphical Web Interface via HTTP and HTTPS over IPv4/ IPv6+	
	File upload using USB, TFTP, FTP, SFTP, or SCP using IPv4/IPv6	
	Human-readable ASCII-based configuration files for off-line editing, bulk configuration, and out-of-the-box auto-provisioning	
	Multiple OS image support with fallback recovery	
	Dynamic Host Configuration Protocol (DHCP) relay for IPv4/IPv6	
	DHCPv4 and DHCPv6 server	
	Loopback IP address support for management	

	Policy- and port-based mirroring	
	Remote port mirroring	
	sFlow v5 and Remote Monitoring (RMON)	
	The switch can work in a“thin client” mode. In this mode no configuration can be saved in the “Running” directory of the switch. A basic configuration with minimal network reachability configuration is stored on the switch running directory. The final configuration of a thin client is pushed by a Network Management System (NMS).	

Industry Certifications		
	FCC, EN 50581, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, EN 60825-1, EN 60825-2	

Sl. No	Description	Compliance (Yes/No)
	Solution & Architecture Overview	
	The wireless LAN solution shall be based on IEEE 802.11 and shall be WFA certified for Data and Voice.	
	The wireless LAN solution shall propose a distributed control function (no centralized controller) with native support for redundancy, elimination of traffic bottlenecks, and lowered latency.	
	The wireless LAN solution shall rely on a distributed data plane.	
	The wireless LAN solution shall allow two types of deployment with a Centralized Management:	
	-> "large deployment" for a multi-site deployment with Access Points spread over multiple management VLANs, and that may operate in a different RF environment	
	-> "Cloud deployment" for any deployment (single or multi-site) with Centralized Management in the cloud.	
	For both deployment types, the solution shall offer advanced features like Intrusion Detection/Prevention or a Captive Portal to manage guests' or BYOD connections without additional third-party components.	
	For both deployment types, the solution shall support advanced wireless services, using Bluetooth LE, ZigBee technologies or advanced servers included in the solution. This without addition of third-party components.	
	The wireless LAN solution shall propose a centralized management function, irrespective of the deployment model ("large" or "Cloud"), as described previously.	
	The wireless LAN solution shall scale up to 4096 Access Points for the "large or Cloud deployment" models and thousands of users while guarantee ease of deployment and expansion (to be described).	
	The "large or Cloud deployment" option previously described shall rely on a licensing model that is as simple as possible, with one license per AP, including all functions (basic or advanced) handled by the AP.	
	Moving from Wi-Fi Express option (255 APs) shall allow an easy migration to a "large deployment" (4096 APs) when needed.	
	The wireless LAN solution shall have been designed with scalability in mind to allow the 4096 APs limit without requiring new equipment or deployment design change.	
	The WLAN solution shall allow to connect two distant sites over a wireless point-to-point link.	
	The WLAN solution shall allow to connect multiple distant sites over wireless (Mesh Network)	
	The WLAN solution shall allow easier deployment of Mesh Networks.	
	The WLAN solution shall support IPv6 for wireless clients.	
	The WLAN solution shall support L2GRE tunneling with a highly flexible architecture.	
	The WLAN solution shall support RAP functionality, allowing an AP to secure the traffic sent over an untrusted network like the Internet. Should use the latest security standards like Wire Guard.	
	Access Control, Authentication and Encryption	
	The wireless LAN solution shall support MAC based authentication.	
	The wireless LAN solution shall support 802.1x based authentication.	
	At least for a "large or Cloud deployment" scenario as described previously, the WLAN solution shall include a built-in RADIUS server for 802.1x and MAC authentication that shall not be proposed as a separate product.	

	The built-in RADIUS server as described above shall be able to interface with an external authentication server (Radius, LDAP, Active Directory): Free Radius, Microsoft NPS Radius Server, Microsoft AD, Open LDAP…	
	The built-in RADIUS server as described above shall support following EAP types: EAP- MD5, EAP-TLS, EAP-AKA, EAP-PEAP, EAP-FAST, EAP-SIM, EAP-TTLS, EAP-GTC.	
	At least for a “large or Cloud deployment” scenario as described previously, the wireless LAN solution shall have the ability to utilize RADIUS attributes to assign each authenticated user/device to a specific ROLE. A role defines a VLAN and enforces security and QoS through the use of role-based ACLs and QoS policies that can be directly integrated with the roles defined within existing authentication servers.	
	At least for a “large or Cloud deployment” scenario as described previously, the wireless LAN solution shall include and handle a flexible and adaptive RADIUS attributes dictionary allowing to add an IETF or any vendor specific RADIUS attribute.	
	If the built-in RADIUS server as described previously shall interface with an external RADIUS server, then it shall be able to interface with multiple and distinct RADIUS servers depending on specific access conditions (SSID name, Access Point IP address, identity of the connecting user…)	
	The wireless LAN solution shall support following link layer encryption standards: WPA2_AES, WPA2_TKIP, WPA_AES, WPA_TKIP, DYNAMIC_WEP, WPA_PSK_AES, WPA_PSK_TKIP, WPA_PSK_AES_TKIP, WPA2_PSK_AES, WPA2_PSK_TKIP, WPA3_PSK_SAE_AES, WPA3_SAE_AES.	
	The wireless LAN solution shall support the latest WPA3 encryption standard.	
	The wireless LAN solution shall support OWE encryption standard with open Wi-Fi networks	
	The wireless LAN solution shall support following 802.1x supplicants: Windows 7, 10, MAC OS, IOS, Android, Chromebook.	
	The wireless LAN solution shall support time-based policy access to a SSID.	
	Irrespective of the deployment model (“large” or “Cloud”) as described previously, the wireless LAN solution shall propose a “Guest” management solution based on an embedded and built-in Captive Portal providing web based authentication for guests and visitors.	
	The Guests Captive Portal included in the wireless LAN solution shall allow a customizable look & feel.	
	The Guest management solution shall allow, at least, following authentication methods:	
	-> Username & Password	
	-> Access Code	
	-> Simple Term & Condition acceptance	
	A least for a “large or Cloud deployment” scenario as described previously, the Guest management solution shall allow guests to authenticate using their favorite social network account (supported social networks shall be listed).	
	Irrespective of the deployment model (“large” or “Cloud”) as described previously, the wireless LAN solution shall offer the possibility to build a walled garden environment (with configured domain names) for guest users before they authenticate.	
	The Guest management solution shall allow non-IT staff (e.g., a receptionist) to create temporary guest accounts.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow guest self-registration and employee sponsored access.	
	The WLAN solution shall allow guests accounts bulk provisioning by importing a file containing guest accounts information and shall propose a template import file.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow to create batch of guests accounts just by specifying a guest prefix and a number of accounts to be created.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow to define networking SLAs (security, QoS…) to be applied to guests network connections.	

	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow to define and apply “data quotas” to guests to limit access based on total traffic consumed.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow guests SMS notification.	
	Irrespective of the deployment model (“large” or “Cloud”) as described previously, the wireless LAN solution shall offer the possibility to interface with a third-party external Captive Portal for guests authentication, without necessarily forcing the traffic to through any server or appliance.	
	For a “large or Cloud deployment” scenario as described previously, the licensing model of the Guest management solution shall be based on the number of devices.	
	For a “large or Cloud deployment” scenario as described previously, the Guest management solution shall allow setting a validity period for an authenticated device, in order to avoid entering credentials each time a guest access the network.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall implement strict Guests traffic isolation.	
	The WLAN solution shall allow data retention on user sessions when providing Guest Wi-Fi.	
	In the framework of a “large or Cloud deployment” scenario as described previously, the WLAN solution shall support BYOD and be able to provide device on-boarding that is as simple as possible and without requiring additional third-party components.	
	The on-boarding process of employee devices shall be based on employee corporate accounts.	
	The BYOD application shall allow setting the validity period for the device, and the maximum number of devices per account.	
	The licensing model of the BYOD application shall be based on the number of on-boarded devices.	
	The WLAN solution shall support DSPSK to allow the use of different Pre-Shared Keys (PSK) in the same SSID at the same time	
	The WLAN solution shall support the WIFI4EU initiative from the EU. That includes support for Hotspot 2.0 (Passpoint Wi-Fi Alliance certification program)	
	The WLAN solution shall support the EDUROAM authentication hierarchy for Universities and Research Centers	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall support Web content filtering for users that connect to the Internet	
	RF Management	
	The WLAN solution shall allow automatic and/or manual RF management (channel and power).	
	The WLAN solution shall support IEEE 802.11h standard in order to adapt to regulatory constraints related to the use of the 5GHz frequency band	
	The WLAN solution shall support large width for sparse AP deployment	
	The WLAN solution shall support most recent modulations for latest Dual-band clients	
	The WLAN solution shall support power saving functions for battery consuming clients or for clients with specific data transmission	
	The WLAN solution shall minimize the airtime consumption in extremely dense environments where cell overlap is significant	
	The WLAN solution must be compatible with previous 802.11ac (Wi-Fi 5) and 802.11b/g/n (Wi-Fi 4) standards and remains compatible in case of clients do not support fully the latest standards.	
	The WLAN solution shall support Short Guard Interval.	
	The WLAN solution shall support Long Guard Interval and Long symbol duration	
	The WLAN solution shall be smart enough to guide a new client to the optimal band/channel (2.4GHz/5GHz) considering, at a given time, both the number of associated clients on each band, and the medium utilization.	
	If no band/channel (2.4GHz/5GHz) is overloaded (high medium utilization) or crowded (high client count), an AP shall by default guide a new client to the 5GHz band.	

	Even if the 5GHz band is not overloaded but is crowded (high client count), an AP shall guide a new client to the 2.4GHz band.	
	If a band/channel (2.4GHz/5GHz) is overloaded (high medium utilization) and even if it is not crowded, an AP shall guide a new client to the less loaded band/channel.	
	If all bands/channels (2.4GHz/5GHz) are overloaded (high medium utilization) and no band/channel is crowded, an AP shall guide a new client to the 5GHz band.	
	If all bands/channels (2.4GHz/5GHz) are overloaded (high medium utilization) and the 5GHz is crowded, an AP shall guide a new client to the 2.4GHz band.	
	The WLAN solution shall be able to guide a new client to the appropriate band/channel (5GHz/6GHz) in case of connection with Wi-Fi 6E access points, considering the capability of client to connect to these frequency bands.	
	When a new client discovers multiple APs to associate to, the new client shall be guided to the AP that has the fewest associated clients, thus allowing smart/dynamic load balancing.	
	The WLAN solution shall force clients to the 5GHz (or 6GHz) only when there are dual band capable.	
	The WLAN solution shall deny connection to an AP when the signal of the client becomes too weak and disconnect a client to force it to roam when the signal becomes too weak.	
	The WLAN solution shall support the IEEE 802.11v and 802.11k standards to facilitate network guided roaming.	
	The WLAN solution shall support data rate control to encourage clients to roam at higher rates.	
	The WLAN solution shall propose APs that have the ability to scan the air in order to provide interfering/rogue APs and wireless attacks detection, and shall not rely on external scanning equipment.	
	The scanning function of the APs shall not impact active voice or video calls (SIP and H.323).	
	At least for the 5GHz band, the WLAN solution shall allow to define the list of channels which can participate in dynamic configuration.	
	The WLAN solution shall allow to define a range of transmit power per band (min & max) even if power settings are configured for automatic and dynamic assignments.	
	The WLAN solution shall propose Access Points which can all be configured and deployed in a dedicated scanning mode.	
	The WLAN solution shall propose Access Points with wireless packet capture capabilities.	
	The WLAN solution shall make it simple to review the roaming history for a given client device.	
	The WLAN solution shall allow long interval background scanning.	
	Intrusion Detection and Prevention	
	The WLAN solution have wIDS/wIPS capabilities with no additional and dedicated equipment nor additional license.	
	The WLAN solution shall be able to identify Interfering APs.	
	The WLAN solution shall be able to identify and contain Rogue APs.	
	The WLAN solution shall allow the definition of flexible policies to classify an AP as a Rogue AP.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow the definition of flexible AP attacks detection policies.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow the definition of flexible client attacks detection policies.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall be able to blacklist a WLAN client, either manually or automatically after a client attack has been detected.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow to configure a blacklist duration.	

	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow to configure an authentication failure times threshold.	
	Quality of Service	
	At least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall offer WLAN Access Points that shall support fine-tuned Quality of Service (QoS) allowing following actions based on the identity of the connecting user:	
	-ACL based (source/destination IP address and TCP/UDP ports) permit/deny decision	
	- QoS priority marking and queuing	
	The wireless LAN solution shall comply with the 802.11e WMM standard and shall allow for custom QoS tag (802.1p/DSCP) to WMM queue mapping.	
	A least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall have traffic L7 Application fingerprinting (aka Deep Packet Inspection (DPI) capabilities allowing an administrator to take control of applications (even if they all run on top of the HTTP or HTTPs protocols), including not only blocking applications, but also allowing to prioritize and rate-limit applications.	
	The wireless LAN solution shall be able to define and guarantee bandwidth based on the SSID. At least for a “large or Cloud deployment” scenario as described previously, it shall also be to define and guarantee bandwidth based on the user/device role.	
	At least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall allow to set the maximum number of clients per band/radio and per AP for a specific SSID.	
	The wireless LAN solution shall propose broadcast traffic optimization mechanisms (including Broadcast filtering and Broadcast/Multicast Key rotation).	
	Leveraging its IGMP snooping capabilities, the wireless LAN solution shall be able to optimize multicast traffic by converting multicast traffic to unicast traffic.	
	At least for a “large or Cloud deployment” scenario as described previously, Multicast optimization shall stop on high load.	
	The wireless LAN solution shall propose the WMM Automatic Power Save delivery (APSD) feature to allow clients conserve battery life.	
	The wireless LAN solution shall by default identify Voice and Audio/Video calls and provide appropriate treatment.	
	Mobility	
	The WLAN solution shall support Layer 2 roaming capabilities across APs with no special client-side software required.	
	At least for a “large or Cloud deployment” scenario as described previously, the WLAN solution shall support Layer 3 roaming across APs with no special client-side software required.	
	The WLAN solution shall support 802.11r Fast Roaming and OKC - Opportunistic Key Caching.	
	The WLAN solution shall comply with the 802.11k Radio Resource Management standard.	
	The WLAN solution shall comply with the 802.11v BSS Transition Management standard.	
	The WLAN solution shall inform the wired side of the network about roaming across APs.	
	Wireless LAN Services	
	The solution shall provide BYOD Zeroconf services for mDNS	
	IoT Servers & Advanced Servers	
	At least for a “large or Cloud deployment” scenario as described previously, wireless WLAN solution shall support advanced location-based services provided by Cloud services included in the solution and using Bluetooth LE wireless with dedicated Asset Tracking applications. This without of third-party component for location-based services.	
	At least for a “large” scenario deployment as described previously, wireless WLAN solution shall support IoT devices using ZigBee access network technology, with ZigBee applications included in WLAN solution	

	At least for a “large or Cloud deployment” scenario as described previously, wireless WLAN solution shall support RTLS service provided by RTLS application if existing in the network, or by RTLS Cloud service included in the solution, using WLAN radio only for location-based service.	
	At least for a “large or Cloud” scenario deployment as described previously, wireless WLAN solution shall offer IoT device secure onboarding that is as simple as possible and without requiring additional third-party components.	
	At least for a “large or Cloud deployment” scenario as described previously, wireless WLAN solution shall support advanced analytics services provided by Cloud services included in the solution, services dedicated to statistical and analytical tasks for XL deployments. This without of third-party component for analytics.	
	Management	
	The wireless LAN solution shall propose a centralized management function based on an embedded and secure WEB GUI, irrespective of the deployment model (“large” or “Cloud”) as described previously.	
	In addition to a centralized management function, all Access Points of the wireless LAN solution shall propose a dedicated web interface to monitor and configure a single AP in the global infrastructure, irrespective of the deployment model (“large” or “Cloud”) as described previously.	
	If the centralized management function requires the deployment of a dedicated application, this one shall be in the form of a Virtual Appliance that can be installed on top of any of following hypervisors: VMware ESXi, Microsoft HyperV and Oracle Virtual Box.	
	If the centralized management function requires the deployment of a dedicated application, this one shall run in high avaibility mode to allow uninterrupted access to the network management, even in case of virtual appliance failure during operation.	
	At least for a “large or Cloud deployment” scenario as described previously, the centralized management function shall be able to handle wired equipment (switches) management for a “unified management” approach.	
	The WLAN solution shall be able to automatically discover new APs added to the network.	
	At least for a “large or Cloud deployment” scenario as described previously, the centralized management function shall allow to display the physical topology of the network, including wireless links between APs.	
	At least for a “large or Cloud deployment” scenario as described previously, and especially for XL deployments, the centralized management function shall offer integrity of the WLAN solution by supporting optimal monitoring, management and security features for WLAN.	
	The centralized management function shall allow per equipment configuration and software backup and restore, and bulk backup and restore.	
	The centralized management function shall allow access to all wIPS/wIDS features.	
	At least for a “large or Cloud deployment” scenario as described previously, the centralized management function shall offer, on the basis of an application signature file, insight at application layer (e.g. facebook.com, youtube.com, salesforce.com…) even if the applications run on top of the HTTP or HTTPs protocols. It shall also allow control of those applications.	
	At least for a “large or Cloud deployment” scenario as described previously, the centralized management function shall allow to display the Wi-Fi coverage quality within a given area (“Heat Map”).	
	At least for a “large or Cloud deployment” scenario as described previously, the centralized management function shall allow, before deployment, to determine optimal placement of Access Points (APs) in a location (RF Planning).	
	At least for a “large or Cloud deployment” scenario as described previously, the centralized management function shall be collocated with the Guest and BYOD management applications.	
	Access Points Specific Requirements	**50 No's**
	The WLAN solution shall propose an 802.11ax MU-MIMO indoor tetra-radio AP Access Point (2,4GHz, 5GHZ, Full Band Scanning dedicated Radio and Bluetooth/Zigbee)	

	The Access Point shall have integrated omnidirectional antennas.	
	The Access Point shall offer native BLE5.1/Zigbee radio support.	
	The Access Point shall support up to 32 SSIDs (16 per radio).	
	The Access Point shall offer up to 2.4Gbps throughput on the 5Ghz band (low and high bands) and up to 573Mbps throughput on the 2.4GHz band.	
	The Access Point shall support up to 1024 clients.	
	The Access Point shall have one 1Gb Ethernet port and one 2.5Gb Ethernet (IEEE 802.3bz Multi-rate Gigabit Ethernet), which may be aggregated as a single logical link (LACP).	
	The Access Point shall propose L7 Application recognition (DPI) capabilities providing a real-time classification of flows at the application level.	
	The Access Point shall support 802.3af/at PoE with 24.8W maximum consumption.	
	The MTBF for the Access Point shall be at least 1,104,490 h (126.08 years).	
	The Access Point shall have a Factory reset button.	
	The Access Point shall have a console port.	
	The Access Point must have a dedicated radio for scanning the whole WLAN spectrum (2,4GHz and 5GHZ) for detecting security and RF anomalies.	
	Certifications	
	The WLAN solution shall be certified by recognized standards in security and in particular by Common Criteria process which realizes evaluation of access points listedabove against security requirements.	

Description	Bidder's Compliance (Yes/No)	Remarks
Network Management System (NMS)		
GENERAL		
A redudent solution that shall include a client/server Network Management System that is WEB 2.0 based, providing a WEB GUI for different types of PCs, tablets and smartphones.		
The NMS shall offer a single and consolidated interface for network deployment, troubleshooting,performance analysis and configuration operations.		
The NMS shall offer northbound interface RESTful APIs for application interoperability		
The NMS shall allow real-time monitoring and analysis of critical network performance indicatorsthrough visual and customizable widgets		
The proposed solution should be premise based and should support seamless migration to cloud without change in hardware/firmware of the switch. This should be based on standard server (Physical/Virtual)		
The centralized management function shall allow to display the physical topology of the network.		
The centralized management function shall be able to handle wired equipment (switches) and wireless (Acces Point) management for a "unified management" approach.		
The solution shall be able to automatically discover new Switch or APs added to the network.		
The solution shall be able to blacklist a client, either manually or automatically after a client attack has been detected.		
The centralized management function shall allow per equipment configuration and software backup and restore, and bulk backup and restore.		
TOPOLOGY		
The NMS shall build and present a visual topology for both logical and physical infrastructure withactual neighbor linkage info (IP subnet, layer 2, LLDP adjacency protocols) and live device status		
The NMS shall present logical maps based on user-defined filters (IP subnet, location…).		
NOTIFICATION MANAGER		
The NMS shall allow monitoring and analyzing alerts, notifications and network performancefrom network equipment from any vendor		
The NMS shall offer advanced alert capabilities through customizable filtering and sorting capabilities.		
The NMS shall allow remediation and notifications actions based on predefined conditions with asingle click		
LOCATOR		
The NMS shall be able to locate devices in the network based on MAC address or IP Address, irrespective whether the device is located on a fixed or wireless network.		
RESOURCE MANAGER		
The NMS shall allow mass programmable equipment configuration by the mean of scripts.		
The NMS shall allow infrastructure-wide software image update for baseline version management		
UNIFIED ACCESS		
The NMS shall offer a unified user interface for wired and wireless role profiles for user based access		
The NMS shall offer a wired and wireless cohesive authentication configuration and end-user profile definition for appropriate network access rights and dynamic policies		
ADDITONAL FEATURES		
The centralized management function shall allow access to all wIPS/wIDS features.		

The centralized management function shall offer, on the basis of an application signature file, insight at application layer (e.g. facebook.com, youtube.com, salesforce.com…) even if the applications run on top of the HTTP or HTTPs protocols. It shall also allow control of those applications.		
The solution should allow the admin to easily provision, manage and maintain a network infrastructure with alarms, unified access security policies		
The solution should provide full visibility into wireless, devices and applications, as well as predictive analysis for forward planning		
The management solution should act as comprehensive tools for infrastructure configuration, monitoring, security, device configuration, alert management, to accelerate, downtime resolution, and overall management.		
It should be web based interface with customizable dash board		
Provide details about problematic devices including temperature, memory etc.		
Monitor network bandwidth and end device traffic pattern		
Provide top applications/users usage analytics real time and historical		
Port utilization details and threshold limits		
Provides threat mitigation through a secure perimeter against intrusion and malware attacks		
Should support third party network devices for basic SNMP and report		
MONITORING AND REAL-TIME NOTIFICATION		
Provides real-time network monitoring and alerts for potential risks, and auto remediation		
Resolving issues rapidly; troubleshooting quickly; accelerating cybersecurity threat detection and mitigation; getting ahead of any configuration issues; and monitoring the network.		
Should provide valuable daily/weekly reports that let IT Managers keep track of all issues encountered, how they were resolved and whether they were resolved directly based on the NMS recommendation or otherwise, as well, it collects KPI data.		
Having the ability to audit configurations, collect data and inform the IT Management team can help with early detection of issues, which can result in quicker remediation. For example, when a network event is detected, the IT team can quickly be notified and suggestions for remediation made.		
Additionally, ongoing monitoring of the network can provide relevant data collection to help technical assistance experts work through similar issues. Interventions can be done in real-time and can reduce interactions and time to resolution, resulting in minimised impact and fallout, ultimately creating a better user experience.		
Mitigation and rapid network issue fixes that can be executed and can be automatically carried out when abnormal behaviour or a cybersecurity attack is detected		
Optimise the network in real-time for better QoE		

	Distribution switches	03 no's
Sl. No	**Specifications**	**Compliance(Yes / No)**
General Features		
	Total RU with BPS: 1 RU maximum. Non-blocking architecture	
	Internal Redundant Power Supplies AC/DC. SFP`s Hot Swap	
	Minimum of 24 ports 10/100/1000 Base-T RJ45 & 2 SFP+ 1G ports which can be upgraded to 10G with Performance license. Minimum of 4 SFP+ uplink ports (1/10Gbps)	
	The above minimum ports quantity, cannot be combo. All must be available in the switch, and at the same time	
	MACsec on all 10/100/1000 Base-T RJ45 ports	
	Stack up to 8 elements (Single Management IP). Minimum stacking aggregated of 40Gbps.	
	Minimum switching capacity (Gbps): 168 Gbps & Minimum Processing Capacity (Mpps): 125Mpps	
	Operating Temperature: 0 ° C to 45 ° C	
	Humidity (operation): 5% to 95% non-condensing	
	Minimum MTBF 372k	
Resiliency and high availability functionalities		
	Unified management & control	
	Virtual chassis technology. Virtual Chassis 1+N redundant supervisor manager. Virtual Chassis In-Service Software Upgrade (ISSU). Split Virtual Chassis protection.	
	IEEE 802.1s -MSTP, IEEE 802.1D - STP and IEEE 802.1w - RSTP, Per-VLAN spanning tree (PVST+) , 1x1 STP mode.	
	IEEE 802.3ad/802.1AX Link Aggregation Control Protocol (LACP) and static LAG groups across modules. Virtual Router Redundancy Protocol (VRRP) with tracking capabilities.	
	IEEE protocol auto-discovery. Bidirectional Forwarding Detection (BFD) for fast failure detection and reduced re-convergence times in a routed environment.	
	Built-in CPU protection against malicious attacks	
	Redundant and hot-swappable power supplies	
Layer-2 switching		
	Up to 16k MAC Addresses, Up to 4000 VLANs, Up to 1.5k total system policies	
	Switch Latency: < 4 µs, Max Frame: 9216 bytes (jumbo).	
Layer-3 routing protocols and features:		
	Static routing for IPv4 and IPv6	
	Up to 256 IPv4 and 128 IPv6 static and RIP routes	
	Up to 128 IPv4 and 16 IPv6 interfaces	
	RIP v1 and v2 for IPv4; RIPng for IPv6, OSPFv2 support, OSPFv3 support	
	Up to 2048 entries in the ARP table	

Multicast protocols and features:		
	IGMPv1/v2/v3 snooping to optimize multicast traffic, Multicast Listener Discovery (MLD) v1/v2 snooping+.	
	Up to 1000 multicast groups	
	IP Multicast VLAN (IPMVLAN) for optimized multicast replication at the edge, saving network core resources	
Security features		
	Autosensing IEEE 802.1X multi-client, multi-VLAN support, MAC-based authentication for non-IEEE 802.1X hosts, Web based authentication (captive portal): a customizable web portal residing on the switch.	
	Dynamically provide pre-defined policy configuration to authenticated clients — VLAN, ACL, BW	
	Secure Shell (SSH) with public key infrastructure (PKI) support	
	TACACS+ client, RADIUS & LDAP administrator authentication. Centralized RADIUS for device authentication and network access control authorization.	
	Learned Port Security (LPS) or MAC address lockdown, Access Control Lists (ACLs); flow based filtering in hardware (Layer 1 to Layer 4)	
	DHCP Snooping, DHCP IP and Address Resolution Protocol (ARP) spoof protection. ARP poisoning detection. IP Source Filtering as a protective and effective mechanism against ARP attacks.	
	Role-based authentication for routed domains	
Quality of Service (QoS) features		
	Eight hardware based queues per port for flexible QoS management. Flow-based QoS with internal and external (a.k.a., remarking) prioritization. Auto QoS for switch management traffic	
	Flow-based traffic policing and bandwidth management, ingress rate limiting; egress rate shaping per port	
	Queue management: Configurable scheduling algorithms — Strict Priority Queuing (SPQ), Queue management: Configurable scheduling algorithms — Weighted Round Robin (WRR).	
	Congestion avoidance: Support for End- to-End Head-Of-Line (E2EHOL) Blocking Protection	
	Three-color marker: Single/ Dual Rate — policing with commit BW, excess BW, burst size	
Software Defined Networking (SDN) features		
	Programmable RESTful API	
	Fully programmable Open Flow 1.3.1 and 1.0 agent for control of native Open Flow and hybrid ports	
	OpenStack networking plug-in	
Management features:		
	Web View Graphical Web Interface via HTTP and HTTPS over IPv4/IPv6	

	Working in a "thin client" mode. In this mode no configuration can be saved in the "Running" directory of the switch. A basic configuration with minimal network reachability configuration is stored on the switch running directory. The final configuration of a thin client is pushed by a Network Management System (NMS)	
	Hitless upgrade of IP services	
ITU-T recommendation		
	ITU-T G.8032/Y.1344 2010: Ethernet Ring Protection (ERPv2)	
Industry Certifications		
	FCC, EN 50581, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, EN 60825-1, EN 60825-2	

Note :

1) Vendor has to mention the SLA time for replacement of equipment in the tender

2) Vendor has to do quarterly maintenance of the supplied equipment and every yearhas to upgrade up firmware if any new release is available.

3) 5 years onsite warranty for switches/software's/Technical support.

4) All the required patch cords, racks, cables, fiber optics cable, patch panels and mounting wifi access point, switch's in required locations in campus.

5) OEM should have TAC & Toll-Free number for support in India.

6) OEM should be directly present in India from past 10 years.

7) All SFP's quoted in this bid should be from same OEM.

8) All Switches including industrial grade, WLC, Access Points, NMS should be from same OEM.

9) OEM should have R&D Center in India for their Networking portfolio.

10) OEM should be present in Gartner Report from past 3 years.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

PART II (Price Bid)

CHAPTER-IV

PRICE SCHEDULE

SNO	DESCRIPTION	UOM	QTY	UNIT RATE	DISCOUNT	NET RATE
	Wi-Fi SYSTEM for MAIN Campus					
1	Main Campus Access points	NOS	50			
2	24 port giga switches Ports for wireless AP'sconnectivity (POE Switch)	NOS	**12**			
3	Installation & Configurations					
ACTIVE COMPONENTS(NETWORK SWITCHES)						
4	24 PORT Advanced L3 DISTRIBUTION SWITCH	NOS	03			
5	Core switch	NOS	02			
6	10G/40 G FIBER MODULE	NOS	As per requirement			
7	Acess Layer Switch – 24 port	NOS	35			
8	NMS	NOS				
9	WIFI Controller	NOS				
10	Licences/Syslog Server installation	NOS				
11	Warranty 5 Years on site	NOS				
12	AMC After Completion of Warranty	Per Year				
13	Other Requirements, if any, please list out					
Total Amount(Excluding GST) :						
Total Amount in Words(Excluding GST)						

Note:

I. **The Bidder may please fill in this form or the same may be typewritten on the Letter Head of the Bidder exactly as per theabove format and submit the same as per the instructions given in the tender document.**

II. **The above price bid should be kept in a separate cover duly super scribed as price bid and the price details are to be shown only in the price bid but not in any other document.**

बोलीदाता का हस्ताक्षर
Sign. of Bidder

CHAPTER V
OTHER FORMATS

a. Bid Form (Bid Covering Letter) - (Annexure-A)
b. Manufacturers' Authorization Form - Annexure B)
c. Bid Security Form / Earnest Money Deposit Form (Annexure – C)
d. Performance Security Form - (Annexure-D)

BID FORM (BID COVERING LETTER) - Annexure-A

[The Bidder shall type this Form on their Letter Head and enclose this along with Technical Bid (Part-I).]

To,

The I/c – Stores & Purchase,

Centre for DNA Fingerprinting & Diagnostics,

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda (if any)

(b) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Tender Document

(c) Our bid shall be valid for from the date fixed for the bid submission deadline, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our bid is accepted, we commit to obtain a performance security in accordance with Clause No.33 of Chapter-1 for due performance of the Contract;

(e) We understand that this bid, together with your written acceptance thereof included in your notification of award/placement of Order, shall constitute a binding contract between us.

(f) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed:

Name:

Duly authorized to sign the bid for and on behalf of:

Dated on_____day of_____, _____

MANUFACTURERS' AUTHORIZATION FORM (Annexure-B)

No: **Dated:**_____

The I/c – Stores & Purchase,
Centre for DNA Fingerprinting & Diagnostics,

Dear Sir:

We_____who are established and reputed manufacturers of the equipment having factories at_____(address of factory) do hereby authorize M/s. (Name and address of Agent) to submit a bid, negotiate and receive the order from you against your Tender No._____dt._____.

No company or firm or individual other than M/s._____is authorized to bid, and conclude the contract in regard to this business.

We hereby extend our full guarantee and warranty as per the Terms and Conditions of the above Tender for the goods and services offered by the above firm.

Yours faithfully,

(Name)
(Name of manufacturers)

Note: This letter of authority should be on the **letterhead of the manufacturer** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be enclosed by the Bidder in its Technical un-priced bid.

BID SECURITY / EARNET MONEY DEPOSIT FORM – Annexure-C

Whereas_____(hereinafter called the tenderer) has submitted their offer dated _____

for the supply of_____(hereinafter called the tender) Against the purchaser's tender enquiry No._____

KNOW ALL MEN by these presents that WE_____of _____

having our registered office at_____are bound unto_____(hereinafter called the "Purchaser")In the sum of _____

For which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said Bank this_____day of_____20_____.

THE CONDITIONS OF THIS OBLIGATION ARE:

(1) If the tenderer withdraws or amends, impairs or derogates from the Tender in any respect within the period of validity of this tender.

(2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:

a) If the tenderer fails to furnish the Performance Security for the due Performance of the contract.

b) Fails or refuses to accept/execute the contract.

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

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

PERFORMANCE SECURITY FORM –Annexure-D

(TO BE SUBMITTED BY THE SUCCESSFUL BIDDER AFTER RECEIPT OF THE PURCHASE ORDER)

To

(Name of Purchaser)

WHEREAS _____

(Name and address of the supplier) ((hereinafter called "the Supplier") has undertaken, in pursuance of contract No. _____dated_____to supply (description of goods and services) ((hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of _____ _____(amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guaranteeand we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the_____day of_____, 20_____.

(Signature of the authorized officer of the Bank)

Name and designation of the Officer

Seal, name & address of the Bank and address of the Branch.

बोलीदाता प्रदर्शन विवरण

BIDDER PERFORMACE STATEMENT – ANNEXURE – E

Sl. No.	CLIENT – 1	CLIENT – 2	CLIENT – 3
1.	Name & Address of the Purchaser	Name & Address of the Purchaser	Name & Address of the Purchaser
2.	Purchase Order No. and Date	Purchase Order No. and Date	Purchase Order No. and Date
3.	Description of material:	Description of material:	Description of material:
	Make/Model:	Make/Model:	Make/Model:
	Qty:	Qty:	Qty:
4.	Date of Installation	Date of Installation	Date of Installation
5.	Contact Details Name: _____ Email: _____ Tel. No.: _____	Contact Details Name: _____ Email: _____ Tel. No.: _____	Contact Details Name: _____ Email: _____ Tel. No.: _____

Please note that priority of selection of your bid will be based on the above credentials. Therefore please submit at least 2 order details successfully executed during the past 3 years.

बोलीदाता का हस्ताक्षर
Sign. of Bidder

उचित मूल्य के लिए उपक्रम

UNDERTAKING FOR REASONABLE PRICE – ANNEXURE - E

This is to Certify that we have offered the possible reasonable prices vide our quote No……_____

and we further undertake that we will not offer less than the offered rates during the validity period to any other State / Central / PSU / Autonomous Bodies / Universities / R&D Institutes / Pharmaceutical Laboratories / Public Limited Companies.

Place:

Date:

बोलीदाता का हस्ताक्षर
Sign. of Bidder with Seal

बोलीदाता की वित्तीय स्थिति

FINANCIAL STATUS OF THE BIDDER – Annexure-F

Sl. No.	Financial Year	Annual Turnover	Profit / Loss
1	2022-23		
2	2021-22		
3	2020-21		

Place:
Date:

बोलीदाता का हस्ताक्षर
Sign. of Bidder with Seal

जाँच सूची
CHECK LIST - Annexure-G

S. No.	Particulars	Indicate Yes/No	Enclosure No.
1	Bid Form (Bid Covering Letter) attached		
2	Detailed Quotation along with Terms & Conditions		
3	Copy of Firm Registration / VAT / TOT attached		
4	Copy of GST attached		
5	Authorization Certificates from OEM attached		
6	Earnest Money Deposit / BG attached		
7	Exemption claimed for EMD / BG and Proof attached		
8	Photocopies of Purchase Orders / Installation Reports as per eligibility Criteria attached		
9	UAM Copy enclosed or not		
10	CE Marking / Certification		
11	Bidder Performance Statement		
12	Undertaking for Reasonable Price offer		
13	Financial Status of the Bidder		
14	CDFD Tender Document duly signed and stamped attached		

SIGNATURE OF BIDDER WITH SEAL:

Email ID:

Contact Number:

Name: