

Notice Inviting Tender

for

The work of Supply and Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office

NIT No.	:	CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin
NIT Issue Date	:	13 th February, 2024.
Pre Bid Meeting	:	20 th February, 2024.at 11.30 AM
Last Date of Submission	:	27 th February, 2024.at 03.00 PM

Office of the Development Commissioner
Cochin Special Economic Zone
CSEZ Admin Building, CSEZ PO, Kakkanad Ernakulam
Kerala
www.csez.com

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Section –I

Notice Inviting Tender

Office of the Development Commissioner, Cochin Special Economic Zone invites sealed tenders for the work of Supply, Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office.

1.	Name of Work:	:	NIT for the work of Supply, Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office.
2.	Location	:	CSEZ Administrative Office CSEZ and CSEZ Gate office, Kakkanad, Kerala
3.	Tender Value	:	
4.	Websites for uploading tender/Corrigendum/ Addendum	:	www.csez.gov.in and https://eprocure.gov.in/epublish/app
5.	Website for downloading tender document	:	www.csez.gov.in and https://eprocure.gov.in/epublish/app
6.	Work Completion Period	:	30 days from the date of award of work
7.	Validity of Bid / Tender	:	60 Days
8.	Start Date for seeking Clarification	:	From the date of publication of NIT
9.	Site Inspection	:	15.02.2024 and 16.02.2024
10.	End Date for seeking Clarification	:	Two days after the pre bid meeting
11.	Email address to which queries for clarification may be sent	:	ev.gokulnath@gov.in
12.	Pre Bid Meeting date and Time	:	20.02.2024 at 11.30 am
13.	Pre Bid Meeting Address	:	The office of The Development Commissioner, Cochin Special Economic Zone, CSEZ Administrative Building, Kakkanad, Cochin-682 037
14.	Last date & time for submission Bid.	:	27.02.2024 up to 15:00 hours in the office of The Development Commissioner, Cochin Special Economic Zone, CSEZ Administrative Building, Kakkanad, Cochin-682 037
15.	Bid opening date	:	27.02.2024 at 16:00 hours
16.	CSEZ Contact information	:	Assistant Development Commissioner(Admin), Cochin Special Economic Zone, CSEZ Administrative Building, Kakkanad, Cochin-682037; Telephone:0484- 2413111; E-mail: ev.gokulnath@gov.in

**For and on behalf of Office of the Development Commissioner, Cochin SEZ
(Sd/)**

Assistant Development Commissioner, (ADMIN)

Note-1: If the office of The Development Commissioner, Cochin SEZ happens to be closed on the last date and time mentioned for any of the event, the said event will take place on the next working day at the same time and venue.

Note-2: CSEZ does not claim that the information is exhaustive. Respondents to this NIT are required to make their own inquiries/surveys/site visit. While due care has been taken in the preparation of the information contained herein, and believe it to be complete and accurate, neither O/o DC, CSEZ nor any of its authorities or agencies nor any of its employees, agents or advisors give any warranty or make any representations, expressed or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

2. Introduction

The Cochin Special Economic Zone is a designated special enclave serving as an export hub for a diverse set of industries belonging to a variety of sectors like electronics, rubber goods, marine products and software services. The manufactured goods and IT/ITeS from CSEZ are exported, generating Foreign Exchange for the country. CSEZ functions under the administrative control of the Department of Commerce, Ministry of Commerce & Industry, New Delhi.

The Office of the Development Commissioner, Cochin Special Economic Zone, (hereinafter referred to as 'CSEZ') is a subordinate office under the Department of Commerce, Ministry of Commerce and Industry, administering Special Economic Zones and Export Oriented Units in Karnataka and Kerala and having its Zonal office at Kakkanad, Ernakulam. On behalf of the Government of India this office invites sealed bids for the work of Supply and Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office covered in the scope of work specified/detailed herein in this NIT.

Considering the nature of activities in CSEZ and the vital installations of critical nature located inside the Zone, it is imperative that a quick, efficient and reliable network connectivity within CSEZ Administrative Office and CSEZ Gate office is installed for all users to share and access applications, data, & internet services.

The objective of this NIT is to invite tenders for work which includes Supply, Installation, Testing and Commissioning of a Computer network in CSEZ Administrative office and CSEZ Gate Office.

The network should provide steady and reliable access of Intranet along with various applications to all sections of CSEZ Administrative Office and CSEZ Gate office. The network should also comprise of WLAN and should provide Wi-fi facility to all the mobile users for their laptops and smart phones in future phase. Users must experience rich connectivity to available resources in the network. Network shall be constructed in structured manner and shall ensure a strong LAN management system.

Definitions:

- 1. Network/Computer Network:** The Computer Network including the switches, routers, firewalls, internet connections, LAN network, OFC cables, network racks, terminals, WIFI access points, CIT6 cables and all active and passive components etc.
- 2. CSEZ Administrative Office:** The office containing offices of the Development Commissioner, CSEZ Administration and CSEZ Customs on the first Floor and the offices on the Ground Floor along with a Server room.
- 3. CSEZ Gate office:** The cabins/ offices located at the main gate of Industrial Zone of CSEZ.
- 4. Contractor:** The Successful Bidder in this NIT to whom the Work is awarded.
- 5. Work:** Supply, Installation and Commissioning of the Computer Network in CSEZ Administrative Office and CSEZ Gate office.

Section-II

1. **Scope of Work:** The Contractor has to undertake the following Works of the Supply, Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office.
 - 1) **Scope of Work in CSEZ Administration office:** The CSEZ Administrative office consists of four sections namely DC wing, Admin Wing, Customs wing, Ground floor wing and a server room. The section-wise scope of work is as follows.
 - a) Restructuring of all the network junction racks in the CSEZ Administration office (in CSEZ Administration office the internet is delivered to every section from the network switches located in the Computer Cell).
 - b) Replacement of the old network switches in every rack with new network switch and configuring the same.
 - c) Installation of Firewall in rack on Computer Cell Room and configuring the same.
 - d) Structuring of the service cables of the internet connections from various service providers entering into the Computer Cell and placing them inside the network rack and connecting them to the Firewall.
 - e) Installation of OFC cables from the Computer Cell to other sections, along with a stand by line of CAT6 cable through a conduit.
 - f) Neat structuring of all the network racks installed in the CSEZ Admin office including the Ground Floor and Server room and numbering of every terminal.
 - g) Replacement of the old Switches in every rack with new ones.
 - h) Repairing or addressing suitably the issues identified in the desk (Terminals) during the structuring of the cables.
 - i) Properly securing the network equipments in every location so that no rodents can enter into it or tamper with it.
 - j) Supply and Installation of Wifi access point in every section on mesh topology and laying of additional cables, if required.
 - k) Laying of the Fiber Cable and CAT6 cables through conduits. The length of the conduits that are to be laid should be estimated by the contractor in such a way that points to be connected are on feasible shortest distance.
 - l) Supplying all the active and passive components of the network for successful installation.
 - m) Submission of the network diagram and sealed work completion report along with network audit report after the successful installation. The Specifications of active and passive items to be supplied for the successful completion of the work in CSEZ Administration office is given in **Annexure-4**.

- 2) **Scope of Work in CSEZ Gate office:** The CSEZ Gate office is located at the entrance of the Industrial area of Cochin Special Economic Zone.
- Installation of a new LAN network from the Communication room to various Desk in the CSEZ gate office.
 - Supplying all the active items and passive items for the laying of the network in CSEZ gate office. The items to be supplied for the successful completion of the work in CSEZ Gate office shall be as per the Specifications given in **Annexure-...**
 - Submission of the network diagram and sealed work completion report along with network audit report after the successful installation of the network.
 - The Specifications of active and passive items to be supplied for the successful completion of the work in CSEZ Gate office is given in **Annexure-4**.
 - Minor Electrical works if required for the successful installation of network equipments shall be carried out by the contractor in all work stations.

2. **Eligibility Criteria:-**

While submitting the tender, the bidder shall ensure that he meets the conditions of eligibility described below. Material deficiencies in providing the information requested may result in the rejection of this tender.

SlNo	Eligibility criteria	Document to be submitted
1	Should have a turnover of 50 lakhs and above	ITR/Audited Balance Sheet for Last Three years
2	Similar Works Experience: The bidder must have completed similar networking works in the last 5 (five) years. The bidder must have completed at least one of the following options: 1) 3 (three) Purchase orders of similar works, each of around 50 nodes OR 2) 2 (two) Purchase orders of similar works, each of around 100 nodes OR 3) 1(one) Purchase order of similar work of around 200 nodes	Experience Certificate or Work/Purchase Orders
3.	Should be an Authorized Service Provider of any OEM	valid OEM Authorization Certificate
4.	Should have manufacturer authorization of active and passive items from the OEM	Manufacturer Authorization Form (MAF)
5.	Should have ISO 27001 and 9001 certification	Certificate

3. **Selection/Evaluation Process:**

- 1) **Brief Description:** A two stage selection process will be adopted in evaluating the tenders. In the first stage, a qualification cum technical evaluation will be carried out followed by a financial evaluation in the second stage. A Committee constituted by Chairperson, CSEZ shall evaluate the bids on technical criteria prescribed under Section II, Clause 2 above.

- 2) **Qualification cum Technical Evaluation:** The tenders will be evaluated on the basis of the bidders' eligibility as mentioned under Section II, Clause 2 above. Only those persons/ firms whose proposals meet the minimum eligibility under the said clause shall qualify for the second stage of the Bidding Process i.e. Financial Evaluation.
- 3) **Evaluation of Financial Bids:** The financial bids of the bidders who qualify in technical evaluation shall be opened and the lowest financial bid shall be determined as L-1.
- 4) **Negotiations:** Negotiations will be held at the address indicated in the tender. The aim is to reach agreement on all points and sign a contract. Having identified the L-1 bidder, the CSEZ expects to negotiate a contract and on completion of negotiations, CSEZ shall execute a contract with the Successful Bidder.

Section –III

1. General Conditions of Contract

- 1) **Parties:** The parties to the contract are the contractor (the successful bidder to whom the work is been awarded) and the CSEZ (Office of the Development Commissioner, Cochin Special Economic Zone).
- 2) The successful bidder shall have to sign an agreement with CSEZ.
- 3) **Validity of offer:** The offer shall be valid for a period of 30 days from the date of submission.
- 4) **Rates:**
 - a) The rates quoted shall include all the taxes, duties, levies, cess, freight and installation charges, cables and connectors etc., the payments of which shall be payable by the Contractor and CSEZ shall not entertain any claim what so ever in this respect.
 - b) Cost for all the statutory and safety precautions shall be included in the rates quoted and CSEZ will not entertain any claim, what so ever in this respect. The rates shall be firm for the period from the date of the award of contract for a period of 30 days or till the completion and release of payment for the work, whichever is later and no escalation what so ever will be allowed during this period. If pursuant to or under any law, notification and order, any royalty, cess or the like becomes payable by CSEZ to the State Government and local bodies/authorities in respect of any material used by the Contractor in the works, then in such a case, CSEZ shall have the right and be entitled to recover the amount paid in the said circumstances as aforesaid from its dues to the Contractor.
- 5) CSEZ shall provide access to CSEZ Administration building and CSEZ Gate office for execution of the work in this tender.
- 6) Defect Liability Period
 - a) The contractor/Suppliers is expected to rectify any defects found in the supplied goods or Works due to defective construction practice or poor quality of work and/or components/material. The Defect Liability Period for the work is 1 year.
 - b) Not with standing anything mentioned with respect to the period of limitation of

defect liability here in this contract, the contractor shall be liable to compensate the Client for any damages sustained either to the Project or to the Client/any third party (by virtue of the Project) attributable either to the defects/fault in the design of the Project or to the defects in materials/workmanship which could have been detected during the period of the Project. If such above rectification is not done by the contractor, the Client shall have the right to rectify the defect during the defect liability period and recover the expenses/cost incurred in such instance, along with compensation, if any from the contractor.

- 6) **Physical Verification:** After installation, all active and passive components should undergo physical verification.
- 7) **Material Custody:** The Contractor shall rectify any damages caused during the installation or shifting of materials when the site is under the Contractor's custody. The delivered materials will be under the custody of the Contractor until the completion of the project.
- 8) **Award of Work:** CSEZ shall consider placement of orders for jobs to those Contractors whose offers have been found technically and financially acceptable. CSEZ reserves the right to counter offer price(s) against price(s) quoted by any bidder.
- 9) **Period for completion of work:** The work has to be completed within 30 days of the award of work. The work completion certificate along with invoices is to be submitted.
- 10) **Payment clause:** Payment will be done in the following phases.

Sl No	Progress of stage of work	Percentage of payment
1.	Supply of the Active Items in BOQ in the installation location	40% of the Tender Value
2	Supply of the Passive Items in BOQ in the installation location	25% of the Tender Value
3	Completion of installation works at CSEZ Gate office	20% of the Tender Value
4	Immediately after successful Commissioning of the Work and submission of Drawings and reports	15% of the Tender Value

- 11) **Performance Guarantee:** The successful bidder shall furnish a Performance Guarantee of five percent (5%) of the bid amount within seven days of issue of the Work Order in any of the forms given below:
 - i. Banker's cheque/Demand draft./Pay Order in favour of Office of the Development Commissioner, Cochin Special Economic Zone payable at Ernakulam; or
 - ii. A bank guarantee in favour of Office of the Development Commissioner, Cochin Special Economic Zone; or
 - iii. Fixed deposit receipts (FDR) Pledged in the name of in favour of Office of the Development Commissioner, Cochin Special Economic Zone, Ernakulam.

Performance guarantee shall be valid for 90 days after the date of completion of the work.

- 12) **Warranty:** The Contractor shall provide a warranty for all items in the BOQ for a

period of 2 (two) years from the date of installation. The quality and quantity of supplied items must be of the same make and model in BOQ as per standard procedure. Replacement of any accessories should be of same model & make during the warranty period.

- 13) **Additional Work:** Before commencing any additional work/material, the Contractor must obtain written approval from CSEZ.
- 14) **Responsibility:** The Contractor is responsible for resolving any damage to the passive components caused by other agencies or external parties and CSEZ shall not be held accountable for addressing such issues.
- 15) **Structural Damage:** If any structure, temporary or permanent, is dismantled, destroyed, or damaged during the execution of the work, the Contractor shall refill, restore, or reconstruct to its previous condition at their own cost. CSEZ shall not be responsible for any such damages.
- 16) **Force Majeure:** If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by party to other within 21 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries have been so resumed or not shall be final and conclusive. Further, that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may, at least option to terminate the contract.
- 17) **Insolvency etc:** In the event of the firm of the Contractor being adjudged insolvent or having a receiver appointed for it by a court or any other order under the Insolvency Act made against them or in the case of a company the passing any resolution or making of any order for winding up, whethervoluntary or otherwise, or in the event of the firm failing to comply with any of the conditions herein specified Development Commissioner, Cochin Special Economic Zone shall have the power to terminate the contract without any prior notice.
- 18) **Breach of Terms and Conditions:** In case of breach of any terms and conditions as mentioned above, CSEZ, will have the right to cancel the work order/ job without assigning any reason thereof and nothing will be payable by CSEZ. In that event the performance Guarantee shall also stand forfeited.
- 19) **Subletting of Work:** The firm shall not assign or sublet the work/job or any part of it to any other person or party without having first obtained permission in writing of Development Commissioner, CSEZ, who will be at liberty to refuse if thinks fit. The tender is not transferable. Only one tender shall be submitted by one bidder.
- 20) **Legal Jurisdiction:** The agreement shall be deemed to have been concluded in Ernakulam, Kerala and all obligations hereunder shall be deemed to be located at Ernakulam, Kerala and Court within Ernakulam, Kerala will have Jurisdiction to the exclusion of other courts.
- 21) No escalation in rates on any account will be permitted during the contract period. Also, no subsidy will be given over the quoted rates.

- 22) All material, machinery, manpower and consumables etc. required for the work shall be arranged by the Contractor. Cost of all the items should be taken into consideration while quoting the all the costs.
- 23) In case any complaints arising on the supplied items or on the works carried out, the Contractor shall replace the same free of cost within 2 days. In the case of work the issue has to be resolved within 24 hrs.
- 24) It will be the sole responsibility of the Contractor to carry out the supply of the items and carry out of the work within stipulated time frame, otherwise, CSEZ shall impose penalty @ of 1% of the Contract amount per week of delay.
- 25) Quantities in BoQ may vary as per actual requirement which shall be foreseen by the Contractor.
- 26) Any damages caused to the existing installations or office equipments on account of the work shall be borne by the Contractor.
- 27) The items will have to be supplied at the CSEZ office site. No transportation/ cartage charges shall be provided for the same.
- 28) Development Commissioner, CSEZ shall be the sole authority to cancel or amend the Work order, as per requirement, and also to place order for supply of item beyond office hours/holidays/place of supply for which, no additional payment shall be made.
- 29) The Contractor should have an Office or a Branch Office located at Ernakulam and should ensure availability of a responsible person on call on all working days between 09.00 Hrs to 18.00 Hrs.
- 30) The amount quoted by the successful bidder should not be higher than the rates at which the items are being supplied by it to other Government Institutes/Ministries/Departments/PSUs. If subsequently it is found that the firm has supplied such items at higher rates to the Development Commissioner, CSEZ, the Work Order shall be cancelled.
- 31) The Contract shall not engage any sub-contractor or transfer the contract to any other person in any manner.
- 32) The Bidder shall be bound by the details furnished by him/her to the Development Commissioner, CSEZ while submitting the tender or at subsequent stage. Upon selection of the Bidder, if at any stage, the documents furnished by him/her are found to be false, it would be deemed to be a breach of terms of contract, the contract shall be cancelled at the discretion of competent authority and performance security shall be stand forfeited.
- 33) The Contractor shall also have to provide the name and mobile number of a key person, who can be contacted at any time, even beyond the office hours on holidays. The person should be capable of making arrangement for the desired items even on short notice to Development Commissioner, CSEZ.
- 34) The Development Commissioner, CSEZ reserves the right to place an order for supply of any items mentioned in the Financial Bid or otherwise, to any other firm(s) in emergency/unavoidable situation.

- 35) The Development Commissioner, CSEZ shall be the final authority to reject full or any part of the supply which is not confirming to the specification and other terms and conditions.
- 36) In the case of discrepancy between the schedule of Quantities / Project Components, the Specifications and/ or the Drawings, the following order of preference shall be observed:
- a) Description of Bill of Quantities/Project Components.
 - b) Particular Specification and Special Condition, Drawings if any.
 - c) Relevant Indian Standard codes and CPWD Specifications or any other Government agencies.
 - d) Any other valid Guidelines issued by finance Dept. of GoI.
- 37) Final decision on the discrepancy shall be at the sole discretion of CSEZ.
- 38) The Contractor has to obtain prior approval from CSEZ in case of using any or equivalent items.
- 39) **Lapses/Errors by the Contractor:**
- a) If there is any adverse effect caused to the functioning of CSEZ/units in CSEZ or any damage/loss incurred to the assets or any claim against CSEZ on account of such damage/loss attributed/attribution to the lapses/errors in the work done by the Successful Bidder, CSEZ shall have the right to recover the pro rata cost or any reasonable liquidated damage/loss from the Contractor.
 - b) CSEZ has all the right to engage an external agency, if necessary, to evaluate the work done by the Contractor. If any adverse effect/damage/loss attributed/attribution to the lapses/ errors as identified, CSEZ shall have the right to recover the pro rata cost incurred for rectification of such lapses/errors or any reasonable liquidated damage/loss from the Contractor. The expenses incurred for such engagement of an external agency also shall be recovered from the Contractor.
 - c) CSEZ shall have the right to deduct appropriate amount from Contract amount as per this tender to the Contractor in case the Contractor fails to render the scope of services specified in this tender and if there is any lack, deficiency or non-compliance occurred on account of the improper activities.
- 55) **Residential Accommodation:** No residential accommodation shall be provided to any of the staff engaged by the Contractor
- 56) **Labour Safety and Compliance:** The labour deployed on the site for the execution of work shall take all safety precautions, and the Contractor shall be responsible for complying with all labour regulations, liabilities, and safety measures. If this is dissatisfied with the labour performance, alternate staff must be provided immediately.
- 56) **Insurance:**
- a) Insurance policy as per Workmen Compensation Act shall be taken or ensured be taken by the Contractor for its employed personnel or for the outsourced personnel employed by the contractor for the work, as applicable. The Contractor shall also be responsible for ensuring compliance with all the provisions of Workmen Compensation Act and shall furnish a copy of the insurance policy to CSEZ before commencement of work.
 - b) The Contractor, at its cost shall arrange, secure and maintain all insurance as may be pertinent to the works and obligatory in terms of law against all perils and the responsibility to maintain adequate insurance coverage at all times during the period of contract shall be of the Contractor alone. The Contractor's failure in this regard

shall not relieve him of any of its contractual responsibilities and obligations.

- c) The perils required to be covered under the insurance shall include all risks, but not limited to fire and allied risks, miscellaneous accidents, workmen compensation risks, loss or damage in transit, theft, pilferage, riot and strikes and malicious damages, civil commotions, weather conditions, accidents of all kinds etc. The Contractor shall be responsible for the safety and security of the employees of the Contractor throughout execution of the works.
 - d) In the event of there being any increase of workmen compensation insurance premium under any law or any additional or new liability under the Employees laws being imposed on the Contractor after the date of submission of the tender, the additional expenditure incurred by the Contractor shall be borne by him and no claims shall be entertained by CSEZ on any account.
 - e) All costs on account of insurance liabilities covered under the contract will be on Contractor's account and will be included in Financial Bid.
 - f) In absence of valid Workmen compensation Insurance policy, compensation as decided by the Competent Authority shall be payable by the Contractor in case of any accidental death/injury. CSEZ shall not be liable for any such payments. In the event of failure on the part of the Contractor to deposit the compensation with the concerned authorities within the stipulated period, CSEZ shall take necessary action to deposit the same with the concerned authorities and shall recover/ adjust the amount deposited from the bills submitted by the Contractor anywhere in CSEZ.
 - g) The Contractor shall take adequate Group Insurance and Workmen Compensation as per Act applicable for the said work for its deployed manpower during execution of contract. The expenditure incurred towards premium for such policies shall be borne by the Contractor without any additional cost to the CSEZ. It shall be obligatory on the part of the Contractor to provide a copy of group insurance/ Workmen Compensation policy for the manpower deployed before commencement of work to the Engineer In-Charge of CSEZ. The above policies should be valid throughout the duration of the contract.
 - h) The Contractor shall ensure that all legal dues, including Employees Compensation against workmen Compensation Policy, is paid to the legal heir of the deceased/injured within the time frame and adhering to the provisions of Employee (Workmen) Compensation Act.
 - i) If the Contractor failed to deposit the Compensation amount along with interest, if any, to the concerned Compensation Commissioner, equivalent amount shall be withheld from running bills of Contractor and submitted the same to Commissionerate office without delay.
 - j) Erection All Risk Policy/ Contractor All Risk Policy: The policy should cover all physical loss or damage to the facility at site during storage, erection and commissioning covering all the perils as provided in the policy as a basic cover and the add on covers as mentioned at
- 57) The Contractor shall take the policy in the joint name of CSEZ and themselves. All these policies shall indicate CSEZ as the beneficiary. The policy shall be kept valid till the date of the Operational Acceptance of the project and the period of the coverage shall be determined with the approval of the Development Commissioner of CSEZ.
- 58) The following add-on covers shall also be taken by the Contractor: Third Party Liability cover with cross Liability within Geographical limits of India as on ADD-on cover to the basic EAR cover: The third party liability add-on cover shall cover bodily injury or death suffered by third parties (including the CSEZ's personnel) and loss of or damage to property (including the CSEZs' property and any parts of the Facilities which have been accepted by the CSEZ) occurring in connection with supply and installation of the Facilities. If during the execution of Contract, the CSEZ requests

the Contractor to take any other add-on cover(s)/ supplementary cover(s) in aforesaid insurance, in such a case, the Contractor shall promptly take such add-on cover(s)/ supplementary cover(s) and the charges towards such premium for such add-on cover(s)/ supplementary cover(s) shall be reimbursed to the Contractor on submission documentary evidence of payment to the Insurance company. Therefore, charges towards premium for such add-on cover(s)/ supplementary cover(s) are not included in the Financial Bid.

- 59) Automobile Liability Insurance: The Contractor shall ensure that all the vehicles deployed by the Contractor (whether or not owned by them) in connection with the scope of work are duly insured as per RTA act. Further the Contractor may also take comprehensive policy (own damage plus third-party liability) of each individual vehicle deployed in the project on their own discretion in their own name to protect their own interest.
- 60) Liability for Accidents and Damages: Contractor shall be fully responsible for safe handling of the material/equipment. Any loss or damage during the above operations will be to the account of the Contractor. CSEZ shall have the right to deduct the amount or estimated damages on loss from the bills of the Contractor. If the damage/theft is caused to the CSEZ's asset/ property/office equipment/ Tools and Plants by the personnel employed by the Contractor, then the Contractor shall bear the cost of repair or replacement, as per direction of Development Commissioner, CSEZ. Further in case of any mishap with the employed personnel during the contract period CSEZ will not be responsible for same.
- 61) The Contractor shall be responsible for any compensation whatsoever to its employed personnel in case of any omissions on the parts of its employed personnel and CSEZ shall not be held responsible for such omissions of workers.
- 62) Compliance with Labour Regulations: The Contractor shall comply with all labour related statutes viz. Contract Labour (Regulation & Abolition) Act 1970 (37 of 1970) with State Amendments along with The Contract Labour (Regulation & Abolition) Central Rules 1971; The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Services) Act, 1979 (30 of 1979) along with The Inter-State Migrant Workmen (Regulations of Employment and Conditions of Services) Central Rules, 1980, Employees Compensation Act 1923, Employees Provident Fund and Miscellaneous Provisions Act 1952, Minimum Wages Act 1948, Payment of Wages Act, 1936, Equal Remuneration Act, 1976, Child Labour (Regulation & Abolition) Act, 1986, National and Festival Holidays Act, 1974, Maternity Benefit Act 1961, Employees State Insurance Act 1948, Payment of Bonus Act, 1965 . The
- 63) The Contractor is bound to comply and ensure compliance with all the provisions of applicable labour laws even though not expressly mentioned herein.
- 64) CSEZ shall bear no liability whatsoever towards any violation by the Contractor in the above regard.
- 65) Social Accountability: The bidder shall stand committed to comply all requirements of Social Accountability Standards i.e., SA8000 (latest Standard available at www.sa-intl.org) and maintain the necessary records.
- 66) Safety: It is mandatory for the Contractor to observe during the execution of the works, requirements of Safety Rules which would generally include but not limited to following:
 - a) Each employee shall be provided with initial indoctrination regarding safety by the Successful Bidder , so as to enable him to conduct his work in a safe manner.
 - b) No employee shall be given a new assignment of work unfamiliar to him without proper introduction as to the hazards incident thereto, both to himself and his fellow employees.
 - c) Under no circumstances shall an employee hurry or take unnecessary chance when

working under hazardous conditions.

- d) Employees must not leave naked fires unattended. Smoking shall not be permitted around fire prone areas and adequate firefighting equipment shall be provided at crucial location.
- e) Employees under the influence of any intoxicating beverage, even to the slightest degree shall not be permitted to remain at work.
- f) There shall be a suitable arrangement at every work site for rendering prompt and sufficient first aid to the injured.
- g) The staircases and passageways shall be adequately lighted.
- h) The employees when working around moving machinery, must not be permitted to wear loose garments. Safety shoes are recommended when working in shops or places where materials or tools are likely to fall. Only experienced workers shall be permitted to go behind guard rails or to clean around energized or moving equipment.
- i) The employees must use the standard protection equipment intended for each job.
- j) Each piece of equipment shall be inspected before and after it is used.
- k) Requirements of ventilation in underwater working to licensed and experienced divers, use of gum boots for working in slushy or in inundated conditions are essential requirements to be fulfilled.
- l) The Contractor has to provide sufficient quantity of Personal Protective Equipment (PPE)/ safety equipment conforming to Indian / International standards and provide this equipment to it's manpower at site as per the work requirement. The SUCCESSFUL BIDDER's Site In- charge has to ensure that all deployed manpower must use requisite Personal Protective Equipment / safety equipment at site.
- m) The Contractor shall submit relevant test certificates as per IS/IEC/ International standard as applicable to PPEs & T&Ps to the CSEZ before its usage.
- n) CSEZ may issue warning letter to Site In-charge of Contractor in violation of above norms.
- o) If the Contractor does not take adequate safety precautions and / or fails to comply with the safety rules as prescribed under the applicable law for the safety of the equipment and for the safety of personnel or the Contractor does not prevent hazardous conditions which causes injury to his own employees or the employees of the CSEZ or employees of other O&M Agencies or any other person who are at site or adjacent thereto It may be noted that in case, accident involves a manpower deployed by Contractor at work site or general public, then Contractor site In-charge shall report/inform the accident immediately to the CSEZ and to all the concerned Statutory Authorities i.e.
 - i) The officer In-charge of the nearest Police Station of the associated Police Station.
 - ii) Fire & Rescue Department
 - iii) District administration (District Magistrate/ Sub-Divisional Magistrate)
 - iv) The Regional Labour Commissioner
 - v) Commissioner of Employee Compensation (State) with which the person involved was registered as beneficiary, and
 - vi) Insurance company
- p) The Contractor shall also inform the next of kin or other relative of the person involved in the accident.
- q) In case of an accident happens, the affected person(s) must be administered first-aid and all efforts made to immediately shift to nearby Hospital or any other such place for medical treatment. It should be the responsibility of the Contractor to furnish all

details in this regard to the CSEZ in writing. Failure to comply with requirement may entitle the CSEZ to withhold any dues or suspend the work that is being carried out by the Contractor and recover the damages / costs arisen from such non-compliance by the Contractor. Contractor site In-charge ensure compliance of the same.

- r) In case of any accident (fatal/ non-fatal), the Contractor shall provide the required compensation to the affected person/family as per the Code/Act On Social Security and the Occupational Safety, Health & Working Conditions Code/Act. The Contractor's failure in this regard shall not relieve him of any of his contractual responsibilities & obligations and the CSEZ will not entertain any claim in this regard.
- 67) The Contractor shall follow and comply with all Safety Rules, relevant provisions of applicable laws pertaining to the safety of workmen, employees, plant and equipment as may be prescribed from time to time without any demur, protest or contest or reservations. In case of any discrepancy between statutory requirement and Safety Rules referred above, the latter shall be binding on the Contractor unless the statutory provisions are more stringent.

68) Confidentiality of Information & Intellectual Property:

Subject to conditions contained in this Agreement, the Contractor shall take all necessary steps to safeguard the privacy and confidentiality of any information about the Procuring Entity and its consumers from whom it has acquired such information by virtue of the service provided and shall use its best endeavors to secure that:

- a) No person acting on behalf of the Contractor or the Contractor itself divulges or uses any such information except as may be necessary in the course of operation, maintenance and management of the Estate and IWMS.
- b) No person seeks or obtains such information other than is necessary, for the purpose of commissioning of any project in relation to Estate and IWMS.

Provided, the above para shall not apply where the Procuring Entity has consented in writing to such information being divulged or used and such information is divulged or used in accordance with the terms of that consent; or the information is already open to the public.

- c) The Contractor itself and any person(s) acting on its behalf observe confidentiality of the Procuring Entity/consumer information.
- d) The Contractor, prior to commencement of this agreement, confirms in writing to the Procuring Entity that the Contractor has taken all necessary steps to ensure that it and its employees shall observe confidentiality of customer information.

This clause of Confidentiality shall survive the termination or expiry of this Agreement.

69) Intellectual Property:

- a) The intellectual property rights of any solution/software offered to and implemented by the Procuring Entity and all documents, raw data, research, processes, technology, film, artwork, engravings, dies, paper tapes, magnetic media, programs, designs and inventions (collectively referred to as the "information") conceived of, collected, completed or produced in the course of performance of the contract by the Contractor, for the Procuring Entity or provided to the Contractor by the Procuring Entity shall be the exclusive property of the Procuring Entity and shall be kept confidential.
- b) The Contractor, including all personnel shall not disclose, divulge, share, discuss, lend, license or sell to any third party any information, data, databases, documents, software, proprietary information, taxpayer information or technical material supplied to or by the Procuring Entity in the performance of the Agreement.
- c) The Contractor shall not retain any information related to this agreement, in any

medium, and shall return all copies. All materials prepared at the request of and for the Procuring Entity shall remain the property of the Procuring Entity except with the written consent.

- d) Neither party will use the other party's name nor marks, refer to or identify the other party in any advertising or publicity releases or promotional or marketing correspondence to others without such other party's written approval.

70) **Indemnification:**

- a) The Contractor agrees to protect, defend, indemnify and hold harmless the Procuring Entity and its employees, officers, agents or representatives from and against any and all liabilities, damages, fines, penalties and costs (including legal costs and disbursements) arising from or relating to:
 - i. Any breach of any statute, regulation, direction, orders or standards from any governmental body, agency or regulator applicable to such party;
 - ii. Any breach of the terms and conditions in this agreement by the Contractor.
 - iii. Any claim of any infringement of any intellectual property right or any other right of any third party or of law by the Contractor;
- b) The Contractor shall be fully responsible for the employment and payment of wages to its employees and shall fully comply with all laws, rules, regulations, notifications, directions orders etc. of the Govt. whether Central, State, Local or Municipal relating to such employment, payment of wages etc. and all others matter connected therewith and hereby indemnifies and agrees to continue indemnifying the Procuring Entity in this regard.
- c) The employees of the Contractor shall have no right for employment either with the Procuring Entity during the pendency of the agreement or after, or with Contractor. The personnel employed by the Contractor shall at all times be its employees and all statutory dues to and obligations and liabilities in respect of such employees shall be promptly paid and discharged by them. Notwithstanding their responsibility to comply with any directions or instructions given by the Procuring Entity, the personnel employed by the Contractor, will not, for any purposes whatsoever, be treated or deemed to be employees of Procuring Entity or have any claim or right whatsoever for employment with the Procuring Entity and the Procuring Entity will have no obligations or liabilities whatsoever in relation to any of them or in respect of anything done or omitted to be done by any of them.
- d) The above indemnification clause shall survive the termination or expiry of this Agreement.

- 71) **Dispute Settlement:** In the event of any question, dispute or difference arising under this tender or in connection there-with, the same shall be referred to the sole arbitration by a person appointed by the Development Commissioner, CSEZ. The arbitration will be in accordance with the Arbitration and Conciliation Act 1996.

72) **Termination of Contract**

CSEZ reserves the right to suspend the operation of the Contract with the Successful Bidder, at any time, due to change in its own license conditions or upon directions from the competent government authorities. In such a situation, CSEZ shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Further, the suspension of the Contract with the Successful Bidder will not be a cause or ground for extension of the period of the tender and suspension period will be taken as period spent. During this period, no charges shall be payable by CSEZ.

CSEZ may, without prejudice to any other remedy available for the breach of any conditions of the Contract with the Successful Bidder, by a written notice of 10 days issued to the Contractor at its registered office, terminate / or suspend the Contract

with the Successful Bidder under any of the following circumstances:

1. The Contractor failing to perform any obligation(s) under the Contract.
2. The Contractor failing to ensure rectification, within the time prescribed, any defect as may be pointed out by CSEZ.
3. Non-adherence to undertakings which CSEZ has committed to consumer/clients.
4. The Contractor going into liquidation or ordered to be wound up by competent authority.
5. Any loss/damage suffered by CSEZ due to failure of service on the part of the Contractor.
6. If the Contractor, in the judgment of CSEZ has engaged in corrupt or fraudulent practices in competing for or in executing this agreement. For the purpose of this clause: “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the selection process or in the agreement execution. “Fraudulent practice” means a misrepresentation of facts in order to influence a selection process or the execution of an agreement to the detriment of CSEZ, and includes collusive practice involving the Contractor.

2. Special Conditions of Contract

- 1) **Materials:** The materials supplied by the bidder shall be new, i.e., manufactured not earlier than 12 months before the date of quotation opening, on OEM letter head. The quality of the materials shall strictly be as per the specified standards as fixed by the Ministry of Electronics and Information Technology.
- 2) **Drawings Approval:** The bidder must submit the LAN and Fiber cable laying route plan in CAD drawings with the precise locations to the IT Section before executing the work.
- 3) **Site Personnel:** The bidder shall depute one Site Engineer or Site Supervisor on their payroll. They shall remain present at the site from the start of the project until the completion certificate is issued. The bidder shall provide the details of the Site Engineer or Supervisor, including their name, qualifications, and experience, along with the bid. The attendance of these personnel will be recorded by this office.
- 4) **In-house Equipment:** Bidders should have Splicing, OTDR/OLTS, and Penta scans machines in-house. The bidder must provide an undertaking document on their letterhead to this effect.
- 5) **Balance Material:** The given BoQ is a preliminary estimate; therefore, a site visit is mandatory for bidders. Balance/Remaining material should be taken back by the bidder at their own cost. CSEZ shall not bear any transportation charges, toll charges, taxes, or storage charges. The materials should be removed within ten days from the date of submission of completion certificate. CSEZ shall not be liable for the safety of the materials.
- 6) **Billing:** The billing shall be based on actual measurements of the materials used. No additional measurements regarding wastage, missing items, overheads, and balance material shall be entertained in the billing.
- 7) The passive components' OEM must be ISO 9001 and ISO 14000 certified. The material must have been manufactured in the OEM's own manufacturing facilities and not outsourced.

- 8) The OEM of passive components quoted by the bidder should have a presence in India for at least ten years, ending on the previous day of the last day of submission of the tender. Supporting documents must be attached. The OEM should also have at least one manufacturing plant in India to comply with the Make in India initiative.
- 9) The OEM of Passive components must have at least one RCDD (Registered Communications Distribution Designer) certified engineer on their own payroll sitting in India, whose services can be utilized in the project as and when required. Supporting documents are required with the bid.
- 10) All passive networking materials (excluding Racks and PVC items) quoted by the bidder Should only be from a single OEM make.
- 11) All fiber cable should be bent compliant with ITU-TG.657.A1, OS2.
- 12) For Cat 6/Cat 6A U/UTP cables, performance should be maintained even when termination is within 15 meters, thus ensuring the elimination of short resonance for 4-connector channels. UL/ETL reports for 4 Connectors need to be submitted.
- 13) The bidder/OEM should provide test reports generated from any testing software/device for a minimum of 5000 nodes in support of experience to execute such requirements of margin (3 dB or higher) for Cat 6A / (6 dB or higher) for Cat6 of NEXT (worst case) for the entire frequency range specified in ISO/IEC 11801. Supporting documents are required.
- 14) The Cat 6 U/UTP cable and Cat 6A U/UTP cable should be ETL verified, and all passive components should comply with the RoHS standard. The declaration of RoHS compliance should be mentioned on the datasheets of each Passive Component.
- 15) The Cat 6 U/UTP and Cat6A U/UTP cable should comply with IEC60332-3-22, IEC 61034- 1 and -2, IEC 60754-1 and -2, UL 94, EN 50575 features for environment safety.
- 16) The OEM of passive components is required to provide a performance warranty of a minimum of 20 years from the date of site handover.
- 17) Failure to comply with any of the above terms and conditions will lead to the rejection of the bid.

3. Instruction to Bidders

- 1) Bidders are requested to quote their prices on a firm & fixed basis for the entire period of the Contract. Bids of the firms received with prices quoted on variable basis shall be rejected without assigning any reasons and no communication in this regard shall be made.
- 2) All Bidders are hereby cautioned that Bids containing any deviation or reservation shall be considered as non-responsive and shall be summarily rejected.
- 3) Quotations qualified by such vague and indefinite expression such as “Subject to prior confirmation”, “Subject to immediate acceptance” etc. will be treated as vague offers and rejected accordingly. Any conditional bid shall be rejected summarily.
- 4) At any time prior to date of submission of tender, Tender Inviting Authority may, for any reason or decision, modify the terms & conditions of the tender document by a corrigendum displayed on the website of CSEZ (<https://csez.gov.in> or

<https://eprocure.gov.in/epublish/app>). In order to provide reasonable time to take the amendment into account in preparing their bid, Tender Inviting Authority may or may not, at his discretion, extend the date and time for submission of tenders.

- 5) Substantially Responsible Bids: A substantially responsive Bid is one, which conforms to all the requirements, terms, conditions and specifications of the tender document.
- 6) The purpose of this NIT is to provide interested parties with information to assist the preparation of their bid. While this office has taken due care in the preparation of the information contained herein, and believe it to be complete and accurate, neither it nor any of its authorities or agencies nor any of its respective officers, employees, agents or advisors give any warranty or make any representations, expressed or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.
- 7) Further, CSEZ does not claim that the information is exhaustive. Respondents to this NIT are required to make their own inquiries/ surveys/site visit and will be required to confirm, in writing, that they have done so and they did not rely solely on the information in NIT. CSEZ is not responsible if no due diligence is performed by the bidders.
- 8) It is **mandatory** for the bidders to attend the pre bid meeting and do the site inspection failing which the bids will be rejected.
- 9) The tender is in two- bid system i.e. Technical Bid & Financial Bid and contains specifications and allied Technical details and the Price Schedules of the various items detailed in "**Annexure II**". The technical bid will be opened on the designated date by this office. The financial bid containing the rate of various items will be opened on a suitable date, to be intimated later by this office in respect of those who qualify the terms and conditions of the technical bid.
- 10) The technical bid and the financial bid should be sealed by the bidder in separate covers super-scribed "**Technical bid for the work of Supply and Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office**" and "**Financial bid for the work of Supply and Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office**". Both the sealed envelopes should be kept in a main/ bigger envelope super-scribed as "**The work of Supply and Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office**".
- 11) **EARNEST MONEY DEPOSIT (EMD):**
 - a) **Bidder shall submit the EMD of Rs. 50,000/-**
 - b) The bidder must submit/ deposit earnest money, if specified in the RFQ/Tender enquiry, failing which the tender is liable to be rejected. Earnest Money Deposit shall be submitted in the form of crossed Demand Draft in favour of "Office of the Development Commissioner, Cochin Special Economic Zone". Earnest Money Deposit (EMD) shall be valid for a period of 45 days from the due date of opening of Technical Bids and shall be submitted from any Indian Scheduled Commercial Bank / Indian Branch of Foreign Bank.
 - c) CSEZ will not be responsible for non-receipt of instrument(s) due to postal delay/loss in transit etc. Cheques, cash, Money Orders, Fixed deposit Receipts etc. towards EMD

are not acceptable. Similarly, request for adjustment against any previously deposited EMD/ Pending Dues/ Bills/ Security Deposits of other contracts etc. will not be accepted towards EMD. Bid received without the EMD is liable to be rejected. Bidders registered with BPCL also should submit the EMD as mentioned above. In case any bidder, being micro or small enterprise, is claiming exemption for Earnest Money Deposit, such bidder shall submit supporting documents.

- d) The E M D o f unsuccessful bidders will be returned to them. EMD will be refunded to the successful bidders on receipt of Performance Guarantee
- 12) The NIT document has to be downloaded from above specified websites. Bidders are advised to visit above specified websites regularly for updates /Amendments/ Corrigendum, if any. The Updates / Corrigendum / Addendum shall be followed up to submission of NIT and it will be the part of NIT. The full details about the work, specifications, terms and conditions shall be available in the NIT Document.
- 13) All information submitted in response to this NIT shall be the property of CSEZ and it shall be free to use the concept of the same at its will.
- 14) It is hereby declared that CSEZ is committed to follow the principle of transparency, equity and competitiveness in public procurement. The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of NIT / bid documents, failing which the bidder / bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected. This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the CSEZ.
- 15) The site of Work will remain open for inspection from 14.02.2024 to 16.02.2024 during office hours. The interested bidders may visit the site during above period and also peruse and study the existing requirements. The interested bidder shall neither be given a copy Network Design nor shall they reveal Network Design to any person who is not concerned with this project.
- 16) The rate quoted by firm should be final and written in ink or typed against each item and should not be overwritten.
- 17) Failure of the Bidder to agree with the Terms & Conditions of the Tender/Contract shall constitute sufficient grounds for the annulment of the award of contract, in which event the contract may be awarded to the next most responsive bidder.
- 18) **Consortium:** The bidder should be a single legal entity / individual organization. The consortium shall not be allowed (Undertaking signed by an authorized signatory must be provided).
- 19) **Site Survey Report:** The bidder must visit to inspect & survey site conditions before quoting their rates for the tender. Any later claims regarding site conditions will not be entertained.
- 20) **Documents comprising the Bid:**
- a) The bids prepared by the bidder shall comprise of (1) Technical Bid and (2) Financial Bid.
- b) Intending Bidders shall submit two bids (Technical Bid and Financial Bid) in two sealed envelopes separately clearly mentioning Technical and Financial proposals as such. Technical Bids of all Bidders shall be evaluated to determine as to whether they

meet the Eligibility Criteria of the tender document for undertaking the Project. Once it is determined that the Bidder fulfils the Minimum Eligibility Criteria, he shall be eligible for Financial Bid, which shall be opened on the specified date.

- 21) The firm should also have a valid GSTIN number, which should be mentioned. The bidders should furnish a copy of GSTIN registration number. Tenders not complying with this condition will be rejected.
- 22) All pages of the tender and related papers are to be duly authenticated by bidder to be submitted in a sealed cover. The bidder has to indicate if he is currently registered with any Govt. Organization and if registered, should furnish all relevant details.
- 23) GST /other Taxes if payable extra should be clearly mentioned otherwise no GST / other Taxes charges will be paid.
- 24) The bidder has to state whether business dealings with him presently stand banned by any Government organization and, if so, furnish relevant details.
- 25) **Right to call upon information regarding status of work:** The Development Commissioner, CSEZ will have the right to call upon information regarding status of work/ job at any point of time. To assist in the analysis, evaluation and computation of the bids, this office, may ask bidders individually for clarification of their bids. The request for clarification and the response shall be in writing but no change in the price or substance of the bid offered shall be permitted
- 26) **Technical Bid: -**
 - a) To qualify in the Technical Bid the firm should have the minimum eligibility criteria as under and the firm in this regard must submit the following documents in support of their eligibility criteria: - Refer ANNEXURE – I
 - b) Technical Bids are to be submitted to determine that the bidder has a full comprehension of the tendered work. Where a bidder's technical submission is found non-compliant with the requirement or work, it may be rejected. The Financial Bid will be opened only for the agencies whose technical bids are accepted by the competent authority
- 27) **Financial Bid:**
 - a) The financial bid shall contain Price Bid Form [As per Annexure – II,III and IV] – Price must be quoted as per format specified, failing which tender shall be summarily rejected.
 - b) Only bidders who fulfil the minimum eligibility criteria mentioned in this tender shall qualify for the financial bid.
 - c) Financial bids of those firms who did not qualify in the Technical bid will not be opened and subsequently will be returned to the bidder.
 - d) Financial Bid or traces of information regarding financial bid should not be included in the Technical Bid. If found so, the bid shall be summarily rejected.
- 28) **Signing of Tender :** Individual signing the tender or other documents connected with contract must specify whether he sign as:
 - a) A sole proprietor of the concern or constituted attorney of such sole proprietor;
 - b) A partner of the firm, if it is a partnership firm in which case he must have authority to execute the contracts on behalf of the firm and to refer to arbitration disputes concerning the business of the partnership either by virtue of the partnership

- agreement or by a power of attorney duly executed by the partners of the firm.
- c) Director or a principal officer duly authorized by the Board of Directors of the Company, if it is a company.
- 11) A person signing the tender form or any document forming part of the tender on behalf of another person should have an authority to bind such other person and if, on enquiry it appears that the person so signing had no authority to do so, Development Commissioner, Cochin Special Economic Zone may without prejudice, cancel the contract and hold the signatory liable for all costs, consequences and damages under the civil and criminal remedies available.
- 12) The bidder should sign and affix his firm's stamp at each page of the tender and all its annexure as the acceptance of the offer made by bidder will be deemed as a contract. No page should be removed/ detached from this notice inviting tender.
- 13) **Bid Prices:**
- a) It should be submitted in form given in **Annexure II**. The price quoted will be exclusive of duties/taxes and inclusive of all applicable charges (i.e. packing, forwarding, postage and transportation). Rate fixed by Development Commissioner Cochin Special Economic Zone shall be fixed and final. Taxes, as applicable will be extra, which will separately quoted in the bid, At the time of payment Income Tax or any other Tax payable shall be deducted at source.
- b) The offer shall be firm and in Indian Rupees only. No foreign exchange will be made available by this office.
- c) The rate 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 rejected.
- d) There should be no mention of prices in any part of the bid other than the financial bids. Unit prices for each component of the financial proposal should be mentioned. Any spelling mistakes or incomplete information furnished would invite for a disqualification of the bid. Basic price and GST should be shown separately in the commercial bid. If no segregation is given, it will be presumed that the price includes the applicable GST element
- 15) **Technical Evaluation:**
- a) Detailed technical evaluation shall be carried out by this office pursuant to conditions in the tender document to determine the substantial responsiveness of each tender. For this clause, the substantially responsive bid is one that conforms to all the eligibility and terms and condition of the tender without any deviation. This office determination of bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence. This office shall evaluate the technical bids also to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are in order.
- b) Any effort by a Bidder to influence the Tender Evaluation Committee's processing of Bids or award decisions may result in the rejection of the Bid.
- c) If deemed necessary, CSEZ in its sole discretion can make required variations in the cut off points for technical evaluation including criteria for technical evaluation.
- d) The Tender Evaluation Committee may choose to conduct technical negotiation or discussion with any or all the Bidders. The decision of the Tender Evaluation Committee in the evaluation of the Technical and Commercial bids shall be final and binding on all the parties.
- 15) **Financial Evaluation:**
- a) The financial bid shall be opened of only those bidders who have been found to be technically eligible. The financial bids shall be opened in the presence of representatives of technically eligible bidders, who may like to be present. This office

- shall inform the date, place and time for opening of financial bid.
- b) Arithmetical errors shall be rectified on the following basis. If there is a discrepancy between the unit price and total price that is, the unit price shall prevail and the total price shall be corrected by the office. If there is a discrepancy between words and figures, the lesser amount shall be considered as valid. If the Supplier does not accept the correction of the errors, his bid shall be rejected.
 - c) The Development Commissioner Cochin Special Economic Zone does not bind herself to accept the lowest bid or any bid and reserves the right of accepting the whole or any part of the bid or portion of the job offered; and the bidder shall provide the same at the rates quoted. The Development Commissioner Cochin Special Economic Zone reserves the right to reject any or all offers received in response to tender or cancel or withdraw the tender notice without assigning any reason, whatsoever
- 16) **Opening of Tender:** The bidder is at liberty either himself or authorize not more than one representative to be present at the opening of the tender. The representative attending the opening of the tender on behalf of the tender should bring with him a letter of authority from the bidder and proof of identification.
- 17) **Validity of the bids:** The bids shall be valid for a period of 60 days from the date of opening of the tender. This has to be specified by the bidder in the financial bid.
- 18) **Right of acceptance:**
- a) The Development Commissioner Cochin Special Economic Zone reserve the right to accepting the whole or any part or portion of the bid; and the bidder shall provide the same at the rates quoted. The Development Commissioner Cochin Special Economic Zone reserve the right to reject any or all tenders / quotations or all offers received in response to the tender or cancel or withdraw the tender notice without assigning any reason thereof and also does not bind itself to accept the lowest quotation or any tender and no claim in this regard shall be entertained. No Bidder shall have any cause of action or claim against CSEZ for rejection of his Bid and will not be bound to accept the lowest or any other NIT. No reimbursement of cost of any type or on any account will be paid to persons or entities submitting their Bid.
 - b) This office may call the responsive bidders for discussion to facilitate and assess their understanding of the scope of work and its execution. However, this Office shall have sole discretion to call for discussion.
 - c) Development Commissioner Cochin Special Economic Zone shall have right to accept or reject any or all tenders without assigning any reasons thereof.
 - d) If the envelope is not sealed and marked as instructed above, CSEZ assumes no responsibility for the misplacement or premature opening of the contents of the proposal submitted. If CSEZ found that the bidder is not competent and experienced to carry out the work, bid shall be summarily rejected without assigning any reason thereof.

Notice Inviting Tender for The work of Supply and Installation and Commissioning of Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office

NIT No.

PROFORMA FOR TECHNICAL BID

1. Name of the Bidder:
2. Address of the Bidder:
3. Contact details of the Bidder:
 - (a) Telephone Nos. (with STD Code)
 - (b) FAX No. _____
 - (c) Mobile No. _
 - (d) E-mail :
 - (e) Website _
4. Name of Proprietor/Partner/Authorized Signatory:
5. Copy of Registration Certificate(in case of Registered Firm/Company):
6. Copy of GSTIN Registration Certificate/Service Tax registration certificate.:
7. PAN of Income Tax Department.:
8. Copies of ITR for the last three consecutive financial Years i.e. 2022-23, 2021-22 & 2020-21.
9. The OEMs of which products are quoted by the bidder must be an ISO:9001:2000 or ISO:9001:2008. A copy of such certification of each OEM shall be attached.
10. The OEMs of UTP CAT 6 and Fiber Components and also of Racks shall be an ISO 14001:2004 Certified Company. A copy of such certification shall be attached in the tender document
11. Copy of Balance Sheet/Profit and Loss Account duly certified by Chartered Accountant for each of last three financial years i.e. 2022-23, 2021-22 & 2020-21 showing annual turnover of Rs.50 Lakhs and above. The figure of annual turnover should be highlighted.
12. The bidder must attach authorization of the OEM(s) in original for the products quoted in the tender document. Separate OEM authorization shall be attached for each OEM.
13. The person quoting the bid and signing the tender document should be the authorized signatory of the bidder.
14. The bidder must attach copies of Purchase order for supply and installations of Passive and active Components of LAN totaling issued by Government Departments/PSUs/Autonomous organization of Government/Government corporations for the Financial Years 2022-23, 2021-22 & 2020-21
15. An Undertaking regarding non-blacklisting of the bidder by any Govt. Organization

duly attested by Executive Magistrate/Notary Public must be furnished by the bidder in the tender document. Bids without above undertaking may not be considered.

16. The Bidder must submit details of his/her own/OEM Service Centre in Ernakulam /Kerala Region.

We hereby declare that our Proposal is made in good faith and the information contained is true and correct to the best of our knowledge and belief. We also declare that this offer shall remain valid for a period of 90 (ninety) days from the due date or such further period as may be mutually agreed upon.

Thanking you,

Yours faithfully,

(Dated Signature of the Bidder with stamp of firm)

Name :
Designation :
Seal :
Date :
Place :
Business Address :

Witness:
Signature
Name
Address
Date

Agency:
Signature
Name
Designation
Company
Date

)

FOOT NOTE:-

- A All Documents furnished must be serially numbered, signed and indexed.
- B The above Documents and information shall be furnished in Part A of technical bid.

ANNEXURE-II

Notice Inviting Tender for The work of Supply and Installation and Commissioning of Computer Network Infrastructure in SEZ Administrative Office and CSEZ Gate office NIT No. CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin

FINANCIAL PROPOSAL

COST OF ACTIVE ITEMS					
Sl.No.	Description	Unit	Denomination	Unit price (in Rs.)	Total price
1	48G Port 4SFP/SFP+ Switch	1	Nos		
2	24G Port 4SFP/SFP+ Switch	3	Nos		
3	Firewall*	2	Nos		
4	Wi-Fi Access Point	6	Nos		
5	1G SFP LC LX 10km SMF XCVR (J4859D)	2	Nos		
	Total				

COST OF PASSIVE ITEMS					
Sl.No.	Description	Unit	Denomination	Unit price (in Rs.)	Total Price
1	25mmPVC pipe	2800	Mtrs		
2	50MM square PVC Duct	30	Mtrs		
3	24 port Cat 6 A Patch Pannel	5	Nos		
4	Cat 6A UTP Cable (305Meters Box)	16	Nos		
5	Cat 6A UTP Patch Cord 1M	100	Nos		
6	Cat 6A UTP Patch Cord 3M	100	Nos		
7	Cat 6 A I/O Boxes	100	Nos		
8	POE+ Injector	6	Nos		
9	6 Core Single mode Fiber	100	Mtrs		
10	Fiber LIU 6 Port Fully Loaded	2	Nos		
11	SC to LC Patch Coard 3 Meter	2	Nos		
12	12U Rack with accessories	2	Nos		
	Total				

Installation Charges					
Sl.No.	Description	Unit	Denomination	Unit price (in Rs.)	Total Price
1	Laying of UTP Cable	4800	Mtrs		
2	Laying of Conduit Pipe	2800	Mtrs		
3	Fixing and termination of I/o Box	100	Nos		
4	Fixing and termination of Patch panel	5	Nos		
5	Fixing and configuring of Access Point	5	Nos		
6	Fixing and configuring of L2 Switches	4	Nos		
7	Securing of Rack	5	Nos		
8	Labeling and marking	1	Nos		
9	Removal of Existing Cables and Accessories	1	Nos		
10	Installation of LIU	2	Nos		
11	Laying of Fiber Outdoor Armored Cable	100	Mtrs		
12	Installation of 12U Rack	2	Nos		
13	Pigtails splicing on fiber optic cable	12	Nos		
	Total				

ANNEXURE-III

Notice Inviting Tender for The work of Supply and Installation and Commissioning of Computer Network Infrastructure in SEZ Administrative Office and CSEZ Gate office NIT No. CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin

SUMMARY

	Description	Amount
A	Cost of Active Items	
B	Cost of Active Items	
C	Installation charges	
	Total	

Annexure – IV

**Notice Inviting Tender for The work of Supply and Installation and Commissioning of
Computer Network Infrastructure in CSEZ Administrative Office and CSEZ Gate office
NIT No. CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin**

CERTIFICATE

(To be submitted on letter head of the company/ firm)

I hereby certify that the above firm has not been ever blacklisted by any Central/State Government/Public Undertaking/Institute on any account.

I also certify that firm will be supplied the item as per the specification given by CSEZ and also abide all the terms & conditions stipulated in tender.

I also certify that the information given in bid is true and correct in all aspects and in any case at alater date it is found that any details provided are false and incorrect, any contract given to the concern firm or participation may be summarily terminated at any stage, the firm will be blacklisted and this office may imposed any action as per NIT rules

Date:	Name :
Place:	Business Address :
Signature of Bidder	:Seal of the Bidder :

Annexure -V

**Notice Inviting Tender for The work of Supply and Installation and Commissioning of Computer Network Infrastructure CSEZ Administrative Office and CSEZ Gate office
NIT No. CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin**

Support (Infrastructure available with Bidder)

Sl. No.	Name of State/Region	Contact details such as Names, Address, Phones, e- mails website etc.	Own/OEM Service Center	Technical Manpower details
1	ERNAKULAM/ KERLA			

Annexure-VI

**Notice Inviting Tender for The work of Supply and Installation and Commissioning of Computer Network Infrastructure CSEZ Administrative Office and CSEZ Gate office
NIT No. CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin**

LETTER OF AUTHORIZATION FOR QUOTING THE BID AND ATTENDING THE OPENING OF BID*

To

The Development Commissioner, Cochin SEZ, Kakkanad Enakulam.

Sub. Authorization of bidder for quoting the bid.

Shri/Smt./Ms..... has been authorized by(Name of the Bidder) to quote the bid and sign the tender document for the above tender notice on behalf of(Name of the Bidder) and to represent..... (Name of the Bidder) in respect of above tender..... (Name of the Bidder) shall be responsible for all acts and omissions of the above representative in respect of this tender. The specimen signature of the representative is given below.

Specimen Signature of the representative

signature of bidder or Authorized signatory
(With Seal)

signature of bidder or Authorized signatory
(With Seal)

*To be furnished if the bid is quoted and signed by a person who is not the authorized signatory.

Annexure –VII

Notice Inviting Tender for The work of Supply and Installation and Commissioning of Computer Network Infrastructure CSEZ Administrative Office and CSEZ Gate office NIT No. CSEZ-CSZ0H(ICT)/2/2024-SEZ Cochin

To

The Development Commissioner, Cochin SEZ, Kakkanad Enakulam.

Sub: Authorization of OEM for supply & installation of Rack its maintenance and onsite warranty.

Sir,

I/We _____(OEM) having my/our registered office _____ (address of the OEM) am/are an established manufacturer of _____ (name of quoted items). I/we _____ (name of OEM) authorize _____(Name of the Bidder) to supply, install and provide warranty support on our quoted product for above mentioned Tender. I/we certify that above authorized partner meet the Tender eligibility requirement of this Tender defined for OEM's authorized partners. I/we have also **entered into an agreement with our authorized partners** that they will supply, install and provide warranty support for this Tender on behalf of us.

2. Our full support is extended in all respects for supply, onsite warranty and maintenance of our products.

3. In case of default in execution of this tender by our authorized bidder/partner viz.----- (name of the authorized bidder/partner), the -----(OEM) shall own responsibilities for successful execution of contract/warranty/maintenance/service support through oneself/itself/ourselves or through another authorized partner.

For _____
(name of OEM)

(Signature of Authorized signatory) Name & Designation: _____

Note: This letter of authority should be **on the letter head of the manufacturer** and should be **signed by legal head or Marketing Head or CS of OEM**. This may be enclosed with the Bid. Any modification done to the above format will not be acceptable.

- For different OEM products –separate letter is to be produced by each OEM.

Wi-Fi Requirements

General	<u>Specifications Item-wise</u>	<u>Compliance to Specifications - Yes/No</u>	<u>Remarks</u>
Radio Specification	Max data rates 2033 Mbps	Yes	
MIMO	4X4	Yes	
Antenna	Integrated down-tilt omni-directional antennas	Yes	
Gain	Individual antennae gain of 3.6 dBi in 2.4GHz and 6.0dBi in 5GHz	Yes	
Radios 2.4 Ghz	802.11n (Wi-Fi 4)	Yes	
Data Rate	300 Mbps 2.4 GHZ	Yes	
Radios 5 Ghz	802.11ac (Wi-Fi 5 Wave 2)	Yes	
Data Rate	1733 Mbps 5 GHZ	Yes	
	Bluetooth Low Energy (BLE) radio	Yes	
User per AP	100	Yes	
	USB Interface	Yes	
Ethernet Interface	One Uplink Gigabit Ethernet port	Yes	
	with PoE-in support (802.3af)	Yes	
POE Power Budget	Max power consumption (worst-case): 14.4W (PoE), 12.7 W DC	Yes	
DC Power	DC power connector (12V)	Yes	

Annexure –IX

24port network switch

General	<u>Specifications Item-wise</u>	<u>Compliance to Specifications on - Yes/No</u>	<u>Remarks</u>
Device Type:	Full managed L2 stackable switch with 24ports	Yes	
Ports Qty:	24x RJ45 10/100/1000 Mbps auto-sensing ports, 4x SFP+	Yes	
Stacking Ports	stacking ports (10Gbps) supporting	Yes	
Memory			
Flash Memory:	minimum 256 MB flash	Yes	
Packet Buffer	Minimum 1.5 MB	Yes	
Performance			
Switching Capacity	Minimum 128 Gbps	Yes	
Switching Throughput	Minimum 95.23 Mpps	Yes	
MAC Address Table Size	16000 MAC addresses	Yes	
802.1Q Vlans	4K 802.1Q vlans user configurable	Yes	
Networking Features			
Routing Protocol:	Static routing,	Yes	
Communication Mode:	Half-duplex, full-duplex	Yes	
Switching Protocol:	Ethernet	Yes	
Status Indicators:	Link activity, port transmission speed, port duplex mode, power, link OK, system, temprature LED, Diagnostic LED,rest button	Yes	
Vlans	Should support Port, Voice, video, Protocol, DSCP	Yes	
DHCP	Should support DHCP, DHCP Snooping, DHCP client mode	Yes	
Redundancy Protocols	Should support STP, RSTP, MSTP, STP Root Guard, BPDU Guard, LACP	Yes	
Qos	DSCP or IEEE 802.1p classification, IEEE 802.1p/Q VLAN tagging, strict priority queuing (SP), weighted round robin (WRR), Advanced classifier based QoS, match criteria based on Layer 2, 3, and 4 information.	Yes	
Security Features			
IEEE 802.3x Flow control	Provides a flow-throttling mechanism propagated through the network to prevent packet loss at a congested node.	Yes	
Spanning Tree Protocol (STP)	Supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP on local web).	Yes	
Loop protection	If the switch detects a loop, it disables the source port from forwarding data packets originating from the switch to avoid broadcast storms.	Yes	
BPDU Filtering	Drops BPDU packets when STP is enabled globally but disabled on a specific port.	Yes	

Jumbo frame support	Supports up to 9216 bytes frame size to improve the performance of large data transfers.	Yes	
IGMP Snooping v1/v2	Improves network performance through multicast filtering, instead of flooding traffic on all port.	Yes	
Link aggregation	Groups together multiple ports up to a maximum of eight (8) ports per trunk automatically using Link Aggregation Control Protocol (LACP), or manually, to form a high-bandwidth connection to the network backbone that helps prevent traffic bottlenecks.	Yes	
LLDP/LLDP-MED (Media Endpoint Discovery)	Defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN for automatic configuration of network devices such as IP phones.	Yes	
Address Resolution Protocol (ARP)	Should support 8K MAC for 8 port switch, 16K MAC for 24 and 48 Port Switch The ARP table displays all of the IP addresses that have been resolved to MAC addresses, either dynamically or through static entry configuration.	Yes	
Management Function	The cloud-hosted web interface and mobile app make it easy to manage networks Switches , Simple local web GUI management, For management of individual switches, the intuitive Web GUI makes management simple with multiple session	Yes	
Firmware update	Provides notification of the latest firmware with the ability to schedule update at a preferred time through cloud-based web portal.	Yes	
	Dual image support	Yes	
Default DHCP client mode	Allows the switch to be directly connected to a network, enabling plug-and-play operation. In the absence of a DHCP server on the network, the switch falls back to the static	Yes	
Port mirroring	Enables traffic on a port or VLAN to be simultaneously sent to a network analyzer for monitoring.	Yes	
Event logging and alerts	Provides detailed information for problem identification and resolution	Yes	
Account management	Allows administrators to add, modify, delete and transfer management accounts and passwords for secure access to Instant cloud management solution.	Yes	
Locator LED	Allows users to set the locator LED on a specific switch to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a particular switch within a rack of similar switches.	Yes	
Authentication Method:	GUI, RADIUS, TACACS+	Yes	
Power			
Power Device:	Power supply AC	Yes	
Voltage Required:	100 - 127 / 200 - 240 VAC	Yes	
Certifications	Ethernet Alliance Certified	Yes	

48 port network switch

General	<u>Specifications Item-wise</u>	<u>Compliance to Specifications on - Yes/No</u>	<u>Remarks</u>
Device Type:	Full managed L2 stackable switch with 24ports	Yes	
Ports Qty:	48x RJ45 10/100/1000 Mbps auto-sensing ports, 4x SFP+	Yes	
Stacking Ports	stacking ports (10Gbps) supporting	Yes	
Memory			
Flash Memory:	minimum 256 MB flash	Yes	
Packet Buffer	Minimum 1.5 MB	Yes	
Performance			
Switching Capacity	Minimum 128 Gbps	Yes	
Switching Throughput	Minimum 95.23 Mpps	Yes	
MAC Address Table Size	16000 MAC addresses	Yes	
802.1Q Vlans	4K 802.1Q vlans user configurable	Yes	
Networking Features			
Routing Protocol:	Static routing,	Yes	
Communication Mode:	Half-duplex, full-duplex	Yes	
Switching Protocol:	Ethernet	Yes	
Status Indicators:	Link activity, port transmission speed, port duplex mode, power, link OK, system, temprature LED, Diagnostic LED,rest button	Yes	
Vlans	Should support Port, Voice, video, Protocol, DSCP	Yes	
DHCP	Should support DHCP, DHCP Snooping, DHCP client mode	Yes	
Redundancy Protocols	Should support STP, RSTP, MSTP, STP Root Guard, BPDU Guard, LACP	Yes	
Qos	DSCP or IEEE 802.1p classification, IEEE 802.1p/Q VLAN tagging, strict priority queuing (SP), weighted round robin (WRR), Advanced classifier based QoS, match criteria based on Layer 2, 3, and 4 information.	Yes	
Security Features			
IEEE 802.3x Flow control	Provides a flow-throttling mechanism propagated through the network to prevent packet loss at a congested node.	Yes	
Spanning Tree Protocol (STP)	Supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP on local web).	Yes	
Loop protection	If the switch detects a loop, it disables the source port from forwarding data packets originating from the switch to avoid broadcast storms.	Yes	
BPDU Filtering	Drops BPDU packets when STP is enabled globally but disabled on a specific port.	Yes	

Jumbo frame support	Supports up to 9216 bytes frame size to improve the performance of large data transfers.	Yes	
IGMP Snooping v1/v2	Improves network performance through multicast filtering, instead of flooding traffic on all port.	Yes	
Link aggregation	Groups together multiple ports up to a maximum of eight (8) ports per trunk automatically using Link Aggregation Control Protocol (LACP), or manually, to form a high-bandwidth connection to the network backbone that helps prevent traffic bottlenecks.	Yes	
LLDP/LLDP-MED (Media Endpoint Discovery)	Defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN for automatic configuration of network devices such as IP phones.	Yes	
Address Resolution Protocol (ARP)	Should support 8K MAC for 8 port switch, 16K MAC for 24 and 48 Port Switch The ARP table displays all of the IP addresses that have been resolved to MAC addresses, either dynamically or through static entry configuration.	Yes	
Management Function	The cloud-hosted web interface and mobile app make it easy to manage networks Switches ,Simple local web GUI management, For management of individual switches, the intuitive Web GUI makes management simple with multiple session	Yes	
Firmware update	Provides notification of the latest firmware with the ability to schedule update at a preferred time through cloud-based web portal.	Yes	
	Dual image support	Yes	
Default DHCP client mode	Allows the switch to be directly connected to a network, enabling plug-and-play operation. In the absence of a DHCP server on the network, the switch falls back to the static	Yes	
Port mirroring	Enables traffic on a port or VLAN to be simultaneously sent to a network analyzer for monitoring.	Yes	
Event logging and alerts	Provides detailed information for problem identification and resolution	Yes	
Account management	Allows administrators to add, modify, delete and transfer management accounts and passwords for secure access to Instant cloud management solution.	Yes	
Locator LED	Allows users to set the locator LED on a specific switch to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a particular switch within a rack of similar switches.	Yes	
Authentication Method:	GUI, RADIUS, TACACS+	Yes	
Power			
Power Device:	Power supply AC	Yes	
Voltage Required:	100 - 127 / 200 - 240 VAC	Yes	
Certifications	Ethernet Alliance Certified	Yes	

Firewall Specifications

S.no	General Requirements	Compliance
1	The Firewall must be appliance based and it must have option to support internal or external redundant Power Supply.	
2	The Proposed Firewall Vendor should be in the Leaders/ Challenger in Quadrant of Gartner Magic Quadrant for Enterprise Network Firewall.	
3	The proposed NGFW must have build in GUI and CLI to make on the go changes to Firewall policies without any dependency to management and troubleshoot any issue related to network outage.	
4	NGFW must support Secure SD - WAN feature along with advance routing protocols such as BGP	
5	SD-WAN must be able to link and failover between various connections such as Internet , MPLS , leash line and even Routed based VPN interfaces.	
6	Build-in SDWAN must be able to do load balancing of various links based on source address, User group , protocol and/or applications	
7	SLA for SDWAN must be defined based on packet loss or latency or jitter. Even combination of all 3 option must be possible	
8	Central management solution for the next generation Firewall must be able to Manage all the SDWAN link centrally and should give clear dashboard showing which links are down and which are up . This help the NOC to take action accordingly	
9	NGFW must support multicast routing as well as firewalling	
10	The proposed solution should also support policy routing. Policy routing should work along with SD-WAN and ISP load-balancing.	
11	The proposed solution must also support identity based routing option allowing traffic to be forced out of specific Internet/MPLS gateway based on authentication rather than IP address	
12	The proposed system should have integrated Traffic Shaping functionality this feature should have option to be configured on same firewall policy along with option to configure it separately if required.	
13	Build-in GUI on the NGFW should have option to display logical topology of the network the NGFW is protecting. The display should also be able to give security recommendation for the NGFW.	
14	Device should support Static routing, RIP, OSPF,BGP, IS-IS, RIPng, OSPFv3 and BGP4+	
	Performance Parameters	
1	The solution should support a minimum of at least 1.2 Gbps IPS throughput & Minimum 1 Gbps NGFW throughput on real-world / enterprise mix traffic test condition	
2	The solution should support minimum 800 Mbps threat protection throughput on real-world / enterprise mix traffic test condition	
3	Should support 4 Gbps IPSec VPN throughput and 150 Tunnels	
4	The Firewall must support at least 1,000,000 concurrent connections and 40,000 new sessions per second	
5	The platform must be having minimum of 8 interfaces with auto sensing 10/100/1000 capability and two SFP slots	

	Firewall Features	
1	Firewall policy should be single policy where all the feature get applied such as IPS, application control , URL filtering , antivirus , SSL inspection , logging and even NAT	
2	Firewall must support Zoning option along with User based authentication. It must have automatic option to group all the same zone policy	
3	There must be option to configure the said Firewall policy from GUI of the NGFW appliance without requiring any Management solution. This is in the case of emergency where management solution is no available and policy needs to be changed.	
4	Firewall must support NAT46, NAT66 and NAT64 along with policy for such NAT along with option to configure DNS64.	
5	Firewall must support NAT policy for multicast traffic for both IPv4 and IPv6	
6	Firewall must support option to configure FQDN server rather then IP address in case server have dynamic IP address or site have multiple IP addresses for single domain.	
7	There must be option to even configure wildcard FQDN	
8	Firewall should allow policy based on port or service to protect attack at L3 not just application based policy which might be vulnerable to L3 attacks.	
9	Firewall must support Geo-based IP address blocking option.	
10	DNS translation option must be available in Firewall to change only the specific DNS reply from public to private IP. This is required for allowing user to access local resources using Private IP rather then there public IP address	
11	Build-in GUI/CLI must support option to configure firewall policy which allow packet capture for troubleshooting purposes	
12	The security appliance should be having configurable option to quarantine attack generating source address	
	Virtualization	
1	The proposed solution should support Virtualization (Virtual Firewall, Security zones and VLAN). Minimum 5 Virtual Firewall license should be provided.	
2	Virtualization must be for every feature which are IPS , Application control, Antivirus/Anti-malware , URL filtering , SSL inspection , SSL VPN , IPSec VPN , Traffic shaping and user authentication.	
3	Enabling Virtualization shouldn't require any kind of downtime or reboot. It must be done seamless even if the NGFW is live in the network.	
4	When creating virtualized NGFW it should give mode option to configure each virtualized system such as first system can work in NAT/route mode and second system can work in transparent mode.	
5	Each virtualized NGFW system must have option to configure various parameter to limit the resources utilization such as number of session , etc.	
	VPN Features	
1	NGFW must have build in support IPSec VPN and SSL VPN. There shouldn't be any user license restriction	

2	IPSec VPN must include gateway to gateway and gateway to client vpn. In case of gateway to client the administrator must have option to assign private IP address to remote user without requiring any additional license	
3	Route based IPSec VPN must be supported along with SD-WAN in case of two or more ISP's.	
4	IPSec VPN must include gateway to gateway and gateway to client vpn. In case of gateway to client the administrator must have option to assign private IP address to remote user without requiring any additional license	
5	IPSec VPN must support SHA-1 and SHA-2 (SHA 256, 386 and 512) along with DH group 2,5,14,15,16,17,18,19,20,21,27,28,29,30 and 31.	
6	SSL vpn must support high level algorithm along with TLS v1.2	
7	SSL VPN must not have any user license and should have option to integrate with local AD or RADIUS server	
8	Both VPN must support 2-factor authentication with option to have locally imported tokens on the NFGW appliance itself , if required.	
	Intrusion Prevention System	
1	The IPS detection methodologies shall consist of:	
	a) Signature based detection using real time updated database	
	b) Anomaly based detection that is based on thresholds	
2	The IPS system shall have at least 7,000 signatures	
3	IPS Signatures can be updated in three different ways: manually, via pull technology or push technology. Administrator can schedule to check for new updates or if the device has a public IP address, updates can be pushed to the device each time an update is available	
4	In event if IPS should cease to function, it will fail open by default and is configurable. This means that crucial network traffic will not be blocked and the Firewall will continue to operate while the problem is resolved	
5	IPS solution should have capability to protect against Denial of Service (DOS) and DDOS attacks. Should have flexibility to configure IPv4 and IPv6 Rate based DOS protection with threshold settings against TCP Syn flood, TCP/UDP/ port scan, ICMP sweep, TCP/UDP/ SCTP/ICMP session flooding. Threshold settings must be customizable for different sources, destinations & services	
6	IPS signatures should have a configurable actions like terminate a TCP session by issuing TCP Reset packets to each end of the connection, or silently drop traffic in addition to sending a alert and logging the incident	
7	Signatures should a severity level defined to it so that it helps the administrator to understand and decide which signatures to enable for what traffic (e.g. for severity level: high medium low)	
	Antivirus	
1	Firewall should have integrated Antivirus solution	
2	The proposed system should be able to block, allow or monitor only using AV signatures and file blocking based on per firewall policy based or based on firewall authenticated user groups with configurable selection of the following services:	
	a) HTTP, HTTPS	
	b) SMTP, SMTPS	
	c) POP3, POP3S	

	d) IMAP, IMAPS	
	e) FTP, FTPS	
3	The proposed system should be able to block or allow oversized file based on configurable thresholds for each protocol types and per firewall policy.	
	Web Content Filtering	
1	The proposed system should have integrated Web Content Filtering solution without external solution, devices or hardware modules.	
2	The proposed solution should be able to enable or disable Web Filtering per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS traffic.	
3	The proposed system shall provide web content filtering features:	
	a) which blocks web plug-ins such as ActiveX, Java Applet, and Cookies.	
	b) Shall include Web URL block	
	c) Shall include score based web keyword block	
	d) Shall include Web Exempt List	
4	The proposed system shall be able to query a real time database of over millions+ rated websites categorized into 75+ unique content categories.	
5	Update of local Database based on malicious category discovered by Sandboxing solution from same vendor	
	Application Control	
1	The proposed system shall have the ability to detect, log and take action against network traffic based on over 4000 application signatures	
2	The application signatures shall be manual or automatically updated	
3	The administrator shall be able to define application control list based on selectable application group and/or list and its corresponding actions	
4	Application control and URL filtering must work independent of each other.	
	High Availability	
1	The proposed system shall have built-in high availability (HA) features without extra cost/license	
2	The device shall support stateful session maintenance in the event of a fail-over to a standby unit.	
3	High Availability Configurations should support Active/Active or Active/Passive	
	OEM should be having the following certifications/Ratings	
1	NGFW OEM should be EAL 4 certified	

Annexure –XII**Category 6A UTP Cable:**

S/N	Specifications	Compliance (Yes/No)
Make & Model		
1	High-performance Cable Cat. 6A, U/UTP, 4P, Cable Length - 305 m / 1000 ft	Yes
2	23 AWG Solid Bare Electrolytic Tough Pitch (ETP) Copper or Better	Yes
3	Frequency - Upto 500 MHz or Higher	Yes
4	IEEE 802.3bt Type IV PoE support	Yes
5	Insulation Polyolefin	Yes
6	Nominal Conductor Diameter 23 AWG	Yes
7	Capacitance Unbalance Pair/Ground 330PF/100M Max	Yes
8	Normal Velocity of Propagation 69%	Yes
9	Conductor Resistance: $\leq 9.38 \Omega/1000m$ or better	Yes
10	Characteristics Impedance: $100 \pm 15 \Omega$ or better	Yes
11	Mutual Capacitance: $< 5.6nF/100m$ or better	Yes
12	Delay Skew: $< 45ns/100m$ or better	Yes
13	Operating Temperature: $-15^{\circ}C \sim +75^{\circ}C$ or higher	Yes
14	Transmission Performance in Compliance to ANSI/TIA-568.2-D	Yes
15	Documentation – Technical Compliance Sheet, Datasheet & MAF from OEM	Yes

Category 6A Keystone

S/N	Specifications	Compliance (Yes/No)
Make & Model		
1	Category 6A UTP Keystone	Yes
2	Universal labels Color coded for T568A/568B, TIA568 C.2	Yes
3	Frequency - Upto 500 MHz or Higher	Yes
4	T568A & T568B wiring sticker	Yes
5	Suitable for 23-26 AWG stranded and solid wire	Yes
6	Housing: PC + Glass Fiber, Grey colour (RAL7035), UL 94V-2. Terminal: Phosphor Bronze with Tin Plated	Yes
7	Documentation – Technical Compliance Sheet, Datasheet & MAF from OEM	Yes

Faceplate:

S/N	Specifications	Compliance (Yes/No)
Make & Model.		
1	Dual & Quad (Square) with shutter	Yes
2	Screws / hole covers to supplied with face plate	Yes
3	Labelling on transparent plastic window,	Yes
4	Face Plate – ABS	Yes
5	Dust Cover - ABS	Yes
6	PVC – Backbox	Yes
7	RoHS certified	Yes
7	Documentation – Technical Compliance Sheet, Datasheet & MAF from OEM	Yes

Patch Panel

S/N	Specifications	Compliance (Yes/No)
Make & Model		
1	Powder coated steel in 24 port configurations	Yes
2	Should support port identification numbers on the panel	Yes
3	Rear Cable Management Bar support	Yes
4	Loaded with Category 6A Keystones with UL 94V-0, 500 MHz support	Yes
5	Documentation – Technical Compliance Sheet, Datasheet & MAF from OEM	Yes

Category 6A Patch Cord:

S/N	Specifications	Compliance (Yes/No)
Make & Model.		
1	Category 6A UTP Patch Cord	Yes
2	24AWG stranded bare copper conductor	Yes
3	Conductor Metal Bare Copper	Yes
4	Phosphor bronze Contact with Nickel Plated	Yes
5	Cable-to-plug tensile strength- 20lbs (89N) (min.)	Yes
6	Jacket Material: – VC UL94V-0	Yes
6	Insulation Resistance: 35MΩ (max)	Yes
7	Insulation Material:HD-PE	Yes
8	Insertion: 750 Mating Cycles,	Yes
9	Verified compliant with TIA/EIA-568C.2 standards by ETL	Yes
10	Frequency - Upto 500 MHz or Higher	Yes
11	Length – 3m	Yes
12	Documentation – Technical Compliance Sheet, Datasheet & MAF from OEM	Yes