

ITI LIMITED
(A Govt. of India Undertaking)



TENDER DOCUMENT FOR

Tender for the Supply, Installation and Commissioning of Network Infrastructure at University

Tender Notice No: ITI/RODEL/2k21/CLAN/01

Date: 21.09.2021



Chief Manager
ITI Limited, MSP-Delhi
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Chief Manager ITI Limited,

MSP-Delhi 201-202 Rohit House 3,

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TENDER NOTICE

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Date: 21.09.2021

ITI Limited invites ONLINE bid in TWO COVER SYSTEM (Technical & Financial) from eligible bidders which must be valid for a minimum period of 180 days from the date of bid opening for following items:

Scope of Work	Tender for the Supply, Installation and Commissioning of Network Infrastructure at University
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Interested parties may view and download the tender document containing the detailed terms & conditions at free of cost from the websites [CPP Portal](#) OR <http://itilttd.in>

The ONLINE bids to be submitted in a sealed cover over the mail having subject "Bids for Tender for the Supply, Installation and Commissioning of Network Infrastructure at University" to etenderiti_mspdli@itilttd.co.in

The help desk nos. for bidding:

a) Shri Abhay Sharma: +91-78274-50462

M/s ITI Limited

(Prashant Kumar)

CM-NT MSP Delhi



Subject: Engagement of Master System Integrator agency for Tender for the Supply, Installation and Commissioning of Network Infrastructure at University

We as a Govt. of India Undertaking organization under the Ministry of Communication & IT engaged in ICT business along with other diversifying business areas.

This EOI/RFP/Tender is aimed at identifying suitable Commercial Organization as a System Integrator having adequate strength in the above field.

The System Integrator" (SI) shall act as an OEM/System Integrator of ITI to execute the project in India. All mission critical activities would be managed and supervised by ITI through its experienced Managers and qualified Professionals in the respective areas.

With this vision and commercial objective, sealed bid is invited for the above-mentioned work. The Sealed Technical and Financial proposal under Two Cover-System may be submitted by the Bidder(s). It is must for the bidders to meet the Eligibility Criteria as mentioned in the EoI/RFP/Tender document.

The interested parties may collect the EoI/RFP/Tender document upon submission of EoI/RFP/Tender Document Cost to ITI by person or the same can be downloaded from the website and the said cost may be submitted along with the bid at the time of submission of offer.

Few important points & timelines are being furnished hereunder.

Sl. No.	Important Points / Timelines	Details
1	EoI/RFP/Tender Enquiry Authority	Chief Manager 201, 202 Rohit House, 3 Tolstoy Marg New Delhi- 110001 Ph: (011)- 23317195 prashant_rodel@ititld.co.in
2	Contact Person for the clarification of EoI/RFP/Tender Document	Shri Abhay Sharma Marketing Executive Contact: +91-78274-50462
3	Tender Type (Open/Limited)	Limited – For ITI Empaneled Vendors only
4	No. of Cover/Packet	Two Cover System
5	Tender Category (Goods/Services/Works)	Works
6	Payment Mode (Online/Offline)	Online RTGS/ NEFT Bank: Bank of Baroda, KG Marg MICR: 110012021 IFSC: BARB0CURZON Acc. No.: 06230500000010
7	EoI/RFP/Tender Document Cost (inclusive of GST)	XXXXXXXXXXXXXXXXXXXXXXXXXX
8	EMD Amount	7,00,000/-
9	Estimated Value of Enquiry	XXXXXXXXXXXXXXXXXXXXXXXXXX
10	Due Date, Time & Place for Sale of EoI/RFP/Tender Document	27.09.2021; 10:00 a.m.
11	Due Date, Time & Place for Submission of Bid	27.09.2021, 10:00 a.m.

12	Due Date, Time & Place for Opening of Technical Bid	27.09.2021, 10:30 a.m.
13	Due Date, Time & Place for Opening of Financial Bid	Will be intimated
14	Performance Security	3% of Contract Value

In order to get the clarity of the scope of work / terms & conditions, the bidders are requested to go through the whole EoI/RFP/Tender document and other project related requirements carefully. An explicit understanding of the requirement is rather essential for arriving at commercial assessment by the prospective bidders.

The selected bidder who is to play the role of a „System Integration Associate (SIA)“ has to enter into a Contract with ITI Limited to form a case-specific business alliance (under sole investment business model) for arranging the requisite bidding inputs.

This EoI/RFP/Tender is being issued with no financial commitment and the response to this EoI/RFP/Tender shall not be assumed as mandatory for short listing of the suitable vendor with adequate experience for giving the work.

Chief Manager-NT
MSP-Delhi

Note:- This is a Limited tender applicable for Empanelled Vendors of ITI only which has been done through ITI’s open “EOI for Empanelment of ITiS Providers” vide EOI no. ITI/CORP-CM-ITiSP dated 01.06.2020. In case, a new vendor wishes to participate in this tender, they can enroll themselves by submitting their technical and financial credentials through ongoing open Expression of Interest (EOI) No. ITI/CORP/MKTG/Empanelment dated 06.03.2021 published in ITI website and captioned as “EOI for Empanelment of Vendors”. In both the cases, the bidder should have signed a Teaming Agreement with ITI Limited as on the date of publication of this Tender/EOI

Project Background:

ITI Limited (ITI) is a Public Sector Undertaking which functions under the aegis of The Ministry of Communications and IT, Government of India.

We at MSP-Delhi (which is part of the Corporate Marketing Department located at Bangalore) are engaged in the business of Telecom / ICT and e-Governance projects implementation, Supply of Hardware and Software and the services related with these items.

ITI is interested in addressing some of the prospected business opportunities where it is strongly positioned by virtue of its „PSU Status“, proven „Project Management Capabilities“ and rich Relevant- Experience. ITI is looking for business association from reputed System Integrators/ OEMs who can assist ITI to win the business and ultimately help ITI in the execution of the project.

The objective of this Invitation for submission of bid is to identify a System Integration Associate (SIA) to address a particular „Business Opportunity“ / a kind of „Business Opportunity“ which has emerged or under process to emerge from a client for the implementation of a project in Government Domain.

The selected bidder who is to play the role of a „System Integrator“ has to enter in to a contract with ITI Limited to form a case-specific business alliance for addressing the opportunity.

During the bidding process, the vendor is supposed to provide the requisite Techno-commercial inputs to ITI as per the Requirements/Specifications/Expectations/Scope of Work of the prospective customer to win the commercial bid in favour of ITI. The name of the end-customer and other details of the Projects would be shared with the selected bidder.

On receipt of the Purchase Order, the same would be placed on the selected SI on back to back basis

Eligibility Criteria of the Bidders:

The bidders are to fulfill the following eligibility criteria **and submit documentary proof in this regard:**

S. No.	Clause	Documents Required
1.	Processing fees for the tender document (if any)	xxxxxxxxxx
2.	EMD	7,00,000
3.	The Bidder should have a minimum annual turnover of Rs 5.0 Crores in last three Financial years i.e. (2017-18, 2018-19, 2019-20) duly certified by registered CA	Certificate of Incorporation and Articles of association of the Participant. Copy of GST Registration Income Tax returns for the last 3 financial years. Copy of PAN card

4.	The Bidder must be a profit making Company/Organization from last 3 years (2017-18, 2018-19, and 2019-20) duly certified by registered CA.	Documentary Proof / CA Certificate
5.	Switches, Controller and Access Points should be from the same OEM to have single TAC for Active components.	Documentary Proof and Certificate
6.	The bidder should not have been blacklisted or conflict of activities by any State Government, Central Government or any other Public Sector undertaking or a Corporation or any other Autonomous Organization of Central or State Government for breach of Contractual Conditions	Self-Certificate declaration that the bidder is not black listed to be enclosed.
7.	Atleast one Project of Networking wired/wi-fi/data centre with work order of the value of Rs 3.0 Crore or more in any State/Central Government/Government Agencies/PSU in the financial years 2018-19 and 2019-2020 Or Two Projects of Networking with work order of the value of 2.0 Crore or more in any State/Central Government/Government Agencies/PSU in the financial years 2018-19 and 2019-2020	Purchase Orders from Government Department / Government Agencies / PSU.
8.	Bidder must have executed similar work in any State/Central Government Department/Government Agencies/UNIVERSITY/ PSU in last seven financial years	Purchase Orders from Government Department / Government Agencies / PSU.
9.	The Bidder should submit the Manufacturers Authorization Form (MAF) from the respective major OEMs. And OEM should have presence in India	Documentary Proof and letter from OEM

General Terms and Conditions of EoI/RFP/Tender:

The prospective bidders are advised to study the EoI/RFP/Tender document carefully. Submission of your offer/bid shall be deemed to have been done after careful study and examination of the EoI/RFP/Tender with full understanding of its implications. Failure to furnish all information required in the EoI/RFP/Tender Document or submission of an offer/bid not substantially responsive to EoI/RFP/Tender in every respect will be at the Bidders risk and may result in its outright rejection.

The Bidder shall bear all costs associated with the preparation and submission of its Bid, including cost of presentation for the purposes of clarification of the Bid, if so desired by ITI Limited. In no case, ITI would be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering Process. ITI reserves the right, not an obligation, to carry out the capability assessment of the Bidder(s). This right inter alia includes seeking Technical-Demonstrations, Presentations, Proof of Concept and Live-site visits etc.

1	Empaneled Vendor of ITI	Only ITI Empaneled Vendor(vendors who have signed the Empanelment Agreement with ITI on or before the submission of the tender/bid/proposal)
2	Non-transferable Offer	This EoI/RFP/Tender document is not transferable. Only those, who have purchased this offer document, are entitled to quote.
3	Only one Proposal	The Bidder should submit only one Bid/Offer/Proposal. If the Bidder submits or participates in more than one proposal, such proposals shall be disqualified.
4	Language of the Bid	All information in the Bid, correspondence and supporting documents, printed literature related to the Bid shall be in English. Failure to comply with this may disqualify a Bid. In the event of any discrepancy in meaning, the English language copy of all documents shall govern.
5	Clarification and Amendment in Tender	At any time before the submission of Proposals, ITI may amend the EoI/RFP/Tender document by issuing an addendum / corrigendum in writing or by standard electronic means. The addendum / corrigendum shall be sent to all contenders and will be binding on them. The Bidders shall acknowledge receipt of all amendments. To give bidders reasonable time in which to take an amendment into account in their Proposals ITI may, if the amendment is substantial, extend the deadline for the submission of Proposals.
6	Amendment to Bid	At any time prior to the deadline for submission of bids, the bidder may, for any reason, whether at its own initiative, or in response to a clarification requested by a prospective Bidder, submit the Revised Financial Bid.
7	Modification and Withdrawal of Bid	No bid may be withdrawn or modified in the interval between the bid submission deadline and the expiration of the bid validity period specified in Bid documents. Modification or Withdrawal of a bid during this interval will result in the forfeiture of its bid security.
8	Validity of Offer	The offer should be valid for a minimum period of 120 days from the date of submission. The Bids valid for a period shorter than specified period shall be rejected.
9	Prices	The prices quoted by the Bidder shall be FIRM during the performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and

		rejected.
10	Deviation Clause	No Deviation from Specifications, Terms & Conditions of the tender is allowed. Quotations having deviation from our specifications, standard terms & conditions would be liable to be rejected.
11	Taxes and duties	The taxes and duties are to be clearly mentioned, if any.
12	Delivery schedule	Delivery Schedule will be 10-12 weeks from the date of release of Work Order
14	Payment Terms	<ul style="list-style-type: none"> a) Payment shall be released to the vendor on back-to-back basis after ITI has received its payment after the submission of necessary document like Vendor Invoice, receipt acknowledgement of goods by end user etc. b) Other Direct Expenses will be deducted from the payment of the vendor. Expenses like cost incurred by ITI towards EMD/PBG/BG/SD processing. c) The payment shall be done on the basis of actual supply/ delivery/ execution of material as certified by the end customer.
15	Warranty / Annual Maintenance Contract (AMC)	For the period of 5 years beyond Go-Live of the project, Bidder shall be responsible for smooth running of the system
16	Liquidated Damages (LD)	Liquidated Damages shall be levied on back- to-back basis i.e. ITI shall deduct from the payment on amount equal to the LD levied on ITI by the end customer.
17	Training	Training of customer officers/representatives will be the responsibility of the selected Bidders.
18	Acceptance Test Procedure (ATP)	<ul style="list-style-type: none"> a) Vendor have to conduct the Acceptance Test (AT) before handing over of the project(s) to ITI project executing division. b) End Customer will perform testing.
19	Damage to Properties	In case of any accident/damage to customer/end user properties by the vendor, full responsibility will be attributed to the vendor.
20	Contractual Period	ITI's Delivery date provided to ITI by customer. Delivery extension will be on back-to-back basis. The successful Bidder shall so organize his resources and perform his work as to complete it not later than the date agreed to.

21	Extension of Contract	On back-to-back basis.
22	Inspection Authority	End Customer
23	Tender Award Criteria	Bidder offering the best solution (as per methodology) to ITI shall be declared as the successful L1 bidder.
24	Tender Document Cost and Earnest Money Deposit (EMD)	<p>In case of bid submission: Tender Document Cost (If Applicable) and Earnest Money Deposit (EMD) must be remitted through NEFT/RTGS/Net Banking. No interest shall be payable on the EMD.</p> <p>The Bank Details of ITI Limited for NEFT/RTGS/Net Banking is as below: Online RTGS/ NEFT Bank: Bank of Baroda, KG Marg MICR: 110012021 IFSC: BARB0CURZON Acc. No.: 06230500000010</p>
25	Performance Security Deposit	The value of performance security shall be 3% of contract value (issued to Business Associate/SIA by ITI) or end- customers performance security(as per order to ITI)whichever is lower.
26	Consortium Bidding	Not Allowed.
27	Signing of the Bids	The Bid must contain the name, residence and place of business of the person or persons making the Bid and having Power of Attorney and must be signed & submitted by the Bidder with his usual signatures. Satisfactory evidence of authority of the person signing the bid on behalf of the Bidder shall be furnished on non-judicial stamp paper of an appropriate value with the Bid in the form of a Power of Attorney , indicating that the person(s) signing the bid have the authority to sign the bid and that the bid is binding upon the Bidder during the full period of its validity. All the pages of Bid document and supporting documents must be signed and stamped by the authorized signatory having Power of Attorney. Any interlineations, erasures or overwriting shall only be valid if they are initialed by the signatory (ies) to the bid.

28	Submission of Tender	<p>The „Technical Bid“ and „Commercial Bids“ shall be shared in the separate mail with subject “Technical Bid for “Tender for the Supply, Installation and Commissioning of Network Infrastructure at University” and “Commercial-Bid Tender for the Supply, Installation and Commissioning of Network Infrastructure at University” respectively mentioning EoI/RFP/Tender Reference clearly. Both „Technical Bid“ and „Commercial Bid“ are to be mailed separately to etenderiti_mspdli@itilttd.co.in before or on end date of submission.</p> <p>Note: Both the bid should be password protected. Bids received without password are liable to be rejected.</p>
29	Opening of Tender	<p>Technical bid will be opened on due date of tender opening.</p> <p>Note 1: The bidders or their authorized representatives may also be present during the opening of the Technical Bid, if they desire so, at their own expenses.</p> <p>Note 2: The technical bids will be opened and evaluated by a duly constituted committee. After evaluation of the technical bid, Price bids of only those bidders will be opened whose technical bids are found suitable. Date and time of opening of price bids will be decided after technical bids have been evaluated by the committee and will be intimated to technically qualified bidders.</p>
30	Rejection of Bid	<p>ITI reserves the right to reject any or all tenders/quotations/bids received or accept any or all tenders/quotation/bids wholly or in part. Further, ITI reserves the right to order a lesser quantity without assigning any reason(s) thereof. ITI also reserves the right to cancel any order placed on basis of this tender in case of strike, accident or any other unforeseen contingencies causing stoppage of production at ITI or to modify the order without liability for any compensation.</p>
31	Termination For Default	<p>ITI may terminate the contract in whole or in part for the following reasons:</p> <ul style="list-style-type: none"> • If the bidder fails to deliver any or all of the goods/services within the period(s) specified in the contract/purchase order, or within the extension time granted by ITI. • If the bidder fails to perform any other obligation(s) under the contract/purchase order. • If the bidder has engaged in corrupt/fraudulent practices in completing/executing the work assigned to him. • ITI may, without prejudice to any other right or remedy available to it, by a three days' notice in writing, can terminate the contract as a whole or in part in default of the contract. ITI shall have the right to carry out the incomplete work by any means at the risk and cost of the bidder. <ul style="list-style-type: none"> • In addition to rights to forfeiture of PBG and application of LD charges, on the cancellation of the contract in full or in part, ITI shall determine what amount, if any, is recoverable from the contractor for completion of the work or part of the works or incase the works or part of work is not to be completed, the loss or damage suffered by ITI. In determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value of contractor's material taken over and incorporated in work assigned as per the purchase order. • “Corrupt practices” means the offering, giving, receiving or soliciting of anything of value to influence the action of public official in the procurement process or in contract execution.

		<ul style="list-style-type: none">• “Fraudulent practices” a misinterpretation of facts in order to influence the action of a public official in the procurement process or in contract execution and includes collusive bidding among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels to hamper free and open competition.
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33	Arbitration	All disputes arising out of this contract shall be referred to the sole arbitration of MSP Head, ITI Limited, Delhi or his nominee as per the Provisions of Indian Arbitration and Reconciliation Act 1996. Decision of arbitrator shall be final and binding on both the parties.
34	Jurisdiction	This contract between the supplier and buyer shall be governed by the laws of India and this contract shall be taken up by the parties for Settlement and orders only in Delhi jurisdiction.
35	Other Terms and Conditions	
i.		The Bidder(s) are required not to impose their own terms and conditions to the bid and if submitted, it will not be considered as forming part of their bids. The decision of ITI shall be final, conclusive and binding on the Bidder(s). In a nutshell, the Conditional Bid or Bid with deviations will be summarily rejected.
ii.		The Bids/Offer of the Qualified bidders (who qualify the eligibility conditions) only would be subjected to the technical-evaluation.
iii.		The bidder is expected to go through the Scope of work and Specifications. The bidders are to quote only fully compliant solution.
iv.		The exact strategy to address and win the business opportunity would be shared / discussed with the Best-Rated qualified bidder in due course of time.
v.		The bidder is required to extend the requisite support during the evaluation by giving Technical Presentation / Demonstration / Arranging site visits (if required) on "No-Cost No-commitment" basis.
vi.		Any clarification issued by ITI in response to query raised by prospective bidders shall form an integral part of bid documents and it shall amount to an amendment of relevant clauses of the bid documents.
vii.		A clause-by-clause compliance statement to all Sections of the EoI/RFP/Tender document is to be submitted in the Technical Bid, demonstrating substantial responsiveness. A bid without clause-by-clause compliance statement to Eligibility Criteria of the EoI/RFP/Tender document, shall not be considered for evaluation and shall be summarily rejected.
viii.		The bidder should study carefully the document to assess the work and Risk factors associated with such type of Business opportunities.
ix.		The bidder should enclose the documents in their „ Technical Bid “ & „ Commercial Bid “ as specified in the tender documents.
x.		Please note that if any document/authorization letter/testimonies are found fabricated /false/ fake, the bid will be declared as disqualified and EMD will be forfeited. This may also lead to the black-listing of the bidder.
xi.		All the required documents to establish the bidder's eligibility criteria should be enclosed with the original bid/offer (Technical-Bid) itself. The EoI/RFP/Tender will be evaluated on the basis of the documents enclosed with the original bid/offer only. ITI will not enter into any correspondence with the bidder to get these certificates/ document subsequently. However, it reserves its right to get them validated/verified at its own.

xii.		Due to any breach of any condition by the bidder, the Bid Security (EMD) if any submitted by the bidder may be forfeited at any stage whenever it is noticed and ITI will not pay any damage to the bidder or the concerned person. The bidder or/and the person will also be debarred for further Participation in future EoI/RFP/Tenders.
xiii.		All suppliers (including small scale units who are registered with the National Small Scale Industries Corporation under Single point registration scheme) shall furnish Bid Security to the purchaser as per the requirement. As such no bidder is exempted to furnish the EMD.
xiv.		The training shall be given to the end customer to ensure trouble free operations of the System/Equipment.
xv.		The bidder is required to enclose Notarized Copy of the Power of Attorney from its Directors/Top management which should indicate clearly the name of the signatory and title. The Bidders must ensure that all the documents are sealed and signed by authorized signatory.
xvi.		The Power of Attorney given to the Authorized Signatory should be submitted and executed on the non-judicial stamp paper of appropriate value as prevailing in the respective states(s) and the same be attested by a Notary public or registered before Sub-Registrar of the states(s) concerned.
xvii.		Sealed offer/bid prepared in accordance with the procedures enumerated above should be submitted to the Tenderer not later than the date and time laid down, at the specified address.
viii.		ITI shall not be responsible for any postal delay about non-receipt / non-delivery of the bid/documents. This EoI/RFP/Tender Document is absolutely not transferable.
xix.		The bid submitted may be withdrawn or resubmitted before the expiry of the last date of submission by making a request in writing to ITI to this effect. No bidder shall be allowed to withdraw the bid after the deadline for submission of the EoI/RFP/Tender. In case of withdrawal after deadline of submission, EMD will be forfeited.

Special Terms and Conditions of RFP/EoI/Tender:

1. The requirement is meant for addressing a business opportunity which has emerged from some Govt. body.
2. The broad „Scope of Work“ would be as per the EoI/RFP/Tender Document. However, the exact Scope of Work will be intimated to the selected SI/Vendor in due course of time (once bidder is short-listed) for addressing the opportunity.
3. The bidder is supposed to address the business opportunity jointly with ITI under “Sole Investment Business Model”. This may include arranging Bid Security and Performance Bank guarantee etc. All „Terms and Conditions“ as per ITI’s customer with regard to Payment / Reward / Delivery/Penalty shall be applicable on the selected Business Associate /SI also (in the event of the award of the business to ITI by the end-customer).
4. The bidder must be prepared to work with ITI limited on exclusive basis and will neither submit any direct proposal (to the end-client) nor submit any business proposal (to the end-client) through other business partner/PSU. In case of violation of the same, the EMD (if any) shall be forfeited and the bidder will be black-listed.

5. Consortium bidding is not allowed for this EoI/RFP/Tender.
6. All activities like Proof of concept on “No Cost No Commitment” (NCNC) basis wherever applicable will be the responsibility of agencies.
7. Agencies should be willing to sign an exclusive agreement with ITI for smooth execution of the project.
8. Earnest Money Deposit (EMD) / Bid security required for submitting the bid will be borne by the selected agency.
9. All CVC circulars/ statutory guidelines as applicable needs to be followed.

EoI/RFP/Tender Rejection Criteria:

The EoI/RFP/Tender/Bid will be rejected in case any one or more of the following conditions are observed:

1. Bids received without Proof of Purchase of EoI/RFP/Tender Document (if any) and EMD as per requirement.
2. Bids which are not substantially responsive to the Invitation for EoI/RFP/Tender.
3. Incomplete or conditional EoI/RFP/Tender that does not fulfill all or any of the conditions as specified in this document.
4. Inconsistencies in the information submitted.
5. Misrepresentations in the bid proposal or any supporting documentation.
6. Bid proposal received after the last date and time specified in this document.
7. Unsigned bids, bids signed by unauthorized person (without a valid Power of Attorney).
8. Bids containing erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be authenticated by the person(s) signing the bid.
9. Bid shall remain valid for the specified period from the date of opening of EoI/RFP/Tender prescribed by the purchaser. A bid valid for a shorter period shall be rejected by the purchaser being non-responsive.

Please Note

The business associate submitting the bid against this EoI/RFP/Tender must not have an alliance with other bidders / competitors of ITI for the same business opportunity. The bidder if selected as vendor/SI will not be allowed to address the opportunity directly/ extend the help to any other competitor of ITI Limited for the subject project.

Lowest-Bid (Best Qualified Bid) Evaluation Methodology:

1. This EoI/RFP/Tender would be subjected to a Two Stage (Technical & Commercial) Evaluation Process. All the Bidders are requested to note the entire evaluation process carefully.
2. Prior to the detailed evaluation, ITI will determine the substantial responsiveness of each Bid to the EoI/RFP/Tender Document. For the purpose of ascertaining the eligibility,
3. A substantially responsive bid is one which confirms to all the terms and conditions of the EoI/RFP/Tender Document without deviations.
4. The purchaser's determination of bid's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.
5. ITI may waive any minor infirmity or non-conformity or irregularity in the bid which doesn't constitute a material deviation, provided such waiver doesn't prejudice or effect the relative ranking of any bidder. The bids submitted by the Bidders would be subjected to a well-defined and transparent evaluation process.
6. The Bids would be evaluated by a duly constituted Committee of ITI Limited, whose decision would be generally taken as final, unless the aggrieved party establishes any Prima facie errors in the findings of the Committee. In such a situation, he may file a representation within 3 working days of receipt of decision from ITI Limited, duly listing the reasons / grounds. Such a representation would be considered at Senior Management Level of the Tendering Authority, whose decision would be final and binding on all the bidders.
7. The Bidders who have submitted the EoI/RFP/Tender Document cost (If Any)& EMD will be considered for Technical Evaluation.
8. In Technical Evaluation process, all the Technical Bids of the preliminary eligible bidders (as mentioned above) would be scrutinized thoroughly w.r.t. our EoI/RFP/Tender Document. The Bidders, who will qualify in the Technical Evaluation process, would be considered for Commercial Evaluation.
9. In Commercial Evaluation process, all the Commercial Bids of the technically qualified bidders (as mentioned above) would be scrutinized thoroughly w.r.t. our EoI/RFP/Tender Document.
10. The Bidder with best bid (offering the best solution with competitive price) would be chosen and declared as a L1 Vendor.

ITI reserves the right to reject any or all bids without assigning any reasons thereof.

Documents to be submitted along with the “Technical Bid”:

The Bidder/System Integrator (SI) must submit the following documents along with their Technical Bid:

- i. Bid covering Letter on the Letter-Head of the Bidder Company indicating Name and Address of the Authorized Signatory (with Contact telephone numbers and email ID) as per Annexure-A.
- ii. Bidder's Profile.
- iii. Proof of Empanelment with ITI.
- iv. Power of Attorney authorizing the bidder to submit the Bid/EoI on behalf of the Bidder/Consortium.
- v. Tender-Document Cost (if any) of required amount.
- vi. Bid Security (EMD) of required amount.
- vii. Copy of PAN Card.
- viii. GST Registration Certificate.
- ix. Turnover Certificate(s)/Audited Balance-sheet(s) & Profit-Loss Account(s) of the Bidder for last three years.
- x. Declaration on the Letter-Head of the Bidder Company for Non-Black Listing as per Annexure
- xi. Declaration / Undertaking on the Letter-Head of the Bidder Company as per Annexure(s).
- xii. Compliance Statement of „Eligibility Criteria of the Bidder“ along with supporting documents (credentials, experience certificates, declarations & others)
- xiii. Integrity Pact /Non-Disclosure Agreement as per Annexure
- xiv. Tender Documents duly signed & accepted by the bidder

In case, the bidders do not submit any of the above mentioned papers/information along with Expression of Interest, his bid will be rejected and bid will not be considered for further evaluation.

It is reiterated that any bid not fulfilling any of the essential requirements mentioned in this EoI/RFP/Tender document would be classified as “Technically Non-Qualified/Non-Responsive” and Commercial bids of such bidders will not be opened and subsequently returned to the bidder. ***No relaxation would be given to any bidder on any of these conditions.***

Documents to be submitted along with the “Commercial Bid”:

The Bidder/System Integrator (SI) must submit the following documents along with their Commercial Bid:

1. Price Bid as per EoI/RFP/Tender Document format only. No other format will be accepted.

Scope of Work:

The SI/bidder is expected to carry out following work:

1. Laying of Cat 6 Cable with proper Conducting & Mounting of data outlet Points (I/O/Back box/faceplate)
2. The bidder will ensure submission of report after punching of cat6 Cable.
3. Termination of Cat 6 Cable at rack in Patch panel and Information Outlet.
4. Laying of OFC as per information provided from Core Switch rack to Distribution Switch Racks and from Distribution switch racks to Access Switch Racks.
5. Laying of OFC between Distribution Switches in a cluster.
6. Termination of OFC in fully loaded Rack Mount Fiber Panel.
7. The bidder will ensure submission of report after splicing of OFC.
8. Mounting of Racks with accessories.
9. Mounting and Configuration of Switches. The bidder shall also configure existing switches of University as per new design & configuration agreed by University.
10. Bidder will submit Heat Map for Wi-Fi AP to be approved by University before deployment.
11. Mounting & Configuration APs on approved locations.
12. Bidder will submit Customer requirement document, Design documents.
13. Bidder will ensure integration of existing firewall with proposed Campus Network design.
14. Bidder shall configure services using open-source technology (LDAP/RADIUS/DNS/DHCP/SYSLOG/NTP) in different VM created using open source virtualization technology (KVM/XEN). The bidder should ensure monitoring of VM and compute hosts using Open-Source technology.
15. The bidder will be asked to perform below test for randomly selected Copper cable:
16. Wire Map, Length, Propagation Delay, Delay Skew, DC Loop Resistance, Insertion Loss (Attenuation), Return Loss (RL), Near End Crosstalk (NEXT), Attenuation-to-Crosstalk Ratio (ACR-N), ACR-F (ELFEXT), Power Sum ACR-F (PS ELFEXT), Power Sum NEXT, Power Sum ACR-N
17. The bidder should ensure Operation and management of University Campus N/W 24X7 for 5 Years. The manpower deployed at the site if goes on leave then replacement should be provided immediately for 24X7 on site operation & Management.

Campus Network Infrastructure		Compliance (Y/N)
S.No	Generic campus network Design Requirement	
1	Campus must be designed to avoid any STP, Blocking links, broadcast/flood related issues.	
2	All switches i.e. Core, Distribution Switches and PoE switches need to be provided with all software license from day-1 to support functionality mentioned in RFP specification	

3	Campus should have network automation tool for Zero touch provisioning, Building network and host inventory, Network Topology, Creating network segment and network access policy, Software image update, Troubleshooting end to end connectivity, Getting OEM update on security update/advisory.	
4	Bidder should quote Direct OEM TAC Support for 5 years with 8 X 5X NBD SLA	
	Network Provisioning and Automation	
5	All hardware or cloud based resources needed by the controller and/or any other component to make the solution work as per specs is to be included from day 1	
6	Management platform shall support template based configuration	
7	Management platform shall support automated configuration changes (e.g. pushing common network changes across all devices, such as (QoS, security credentials or access control lists)	
8	Management platform shall support configuration compliance checking to detect config drift (e.g. manual configuration changes that no longer match templates or automated configs)	
9	Management platform shall support software image compliance checking for feature and performance consistency	
10	Management platform support turnkey automated deployment (Zero Touch Provisioning) /PnP.	
11	Management platform should provide open APIs to integrate custom developed or commercial third party tools	

12	Management platform should support network rollback to a previously known goodstate after a failed maintenance operation	
13	Management platform should support automated hitless software upgrades of network devices.	
14	Management platform or devices shall support: ssh, JSON/HTTPS, OpenConfig/RESTConf/Netconf/SNMPv2c/v3/Rest APIs	
16	Monitoring platform shall support correlation of events to simplify troubleshooting and reduce alerts.	
17	Monitoring platform shall support capture of the state changes on the device I.e. Network events, States and any anomalies.	
18	Monitoring platform should support event triggered email notification/Webhooks/SMS/	
19		
20	management platform should monitor and record network performance throughput	
21		
22	management platform should collect and maintain an inventory of all campus devices connected	
23	Management Platform should automatically create and display the physical topology of network	
24	Fabric/Solution should support real-time Telemetry function where in it should receive telemetry information from the switches. Telemetry should provide deeper visibility in terms of providing time line based view of the the control plane/data Plane data of the switching fabric/Solution. All Switches shall have license for streaming telemetry information from day 1. Telemetry software shall be licensed to receive telemetry information from all the switches in the fabric/Solution. Telemetry solution and switch OEM should be the same in order to provide seamless integration.	

S.No	Core Switch :	
	Hardware and Performance	

1	Switch should be fixed form factor based configuration to support at-least 32*100G/40G Gigabit Ethernet QSFP+ Ports	
2	The switch should come with 20 QSFP+ (40G) ports Populated from day one supporting upto 1 Km or more.	
3	Switch must have redundant power supplies(1+1) and fans(N+1)	
4	Switch should have field replaceable power supplies and FAN trays	
5	Switch should have non-blocking architecture and should support switching bandwidth up to 6Tbps.	
6	Device should support upto 95K-100K MAC address	
7	Device should support upto 60K IPv4 Prefix routes	
	Operating System	
8	Shall support modern modular operating system designed for scalability and reliability	
9	Shall support auto process recovery from failures	
10	Shall support Health monitoring and self-healing	
11	Shall support Single Operating System binary image for all switch models proposed as part of the design.	
12	Shall support Industry standard CLI	
	L2 Feature	
14	Switch should support Ethernet standards like IEEE802.1p, IEEE802.1Q, Flow control, Jumbo frame, 802.1D, 802.1w, 802.1s, Jumbo frames (9216), 802.3ad, 4K VLAN	
15	Device should support MST/per-vlan RSTP, BPDU Guard, Loop Guard or equivalent.	
16	Device support LLDP and LACP to bundle links and detect misconfig issues.	
	L3 Features	
17	Device should support Routing Protocols: OSPFv2 with multiple instances, OSPFv3, BGP, MP-BGP, and RIPv2	
18	Device Should support Graceful restart for BGP, OSPF v2 and v3.	
19	Device Should support Policy Based Routing (PBR) for IPv4 and IPv6, VRRP V4 and V6, Resilient ECMP, Unicast Reverse path forwarding (urpf), and Inter-VRF route leaking	
21	Device should support VXLAN+EVPN leaf-spine overlay technology	

22	Device should have support for IRB	
23	Device should support IPv4 and IPv6 clients in EVPN based overlay network	
24	Device should support active-active EVPN multi-homing	
25	Device should support Dynamic NAT options like Many-to-Many NAT and Many-to-One NAT (PAT) at line rate with no additional latency.	
26	Device should support IGMP v2/v3, PIM-SM / PIM-SSM, VRF Support for IP Multicast, Multicast Source Discovery Protocol (MSDP) and IP Multicast Multipath. Support for Anycast RP (RFC 4610) is optional	
	High Availability	
27	Device should support Hitless upgrade & reloads in MLAG/Vpc setup and standalone (non-stack) setup (optional), without adversely affecting the forwarding plane with subsecond data outage during upgrade.	
28	Device should support Low-Memory mode wherein during a out of memory condition the device kills non-essential agents until the system recovers the necessary amount of memory.	
	Security	
29	should support port ACL with L2, L3 and L4 parameters	
30	Should support Storm control and Control Plane protection (CoPP)	
31	Device should protect against ARP and DHCP spoofing by ensuring that a port will only permit IP and ARP packets with IP source addresses that have been authorized.	
32	Device should support multicast accounting to AAA servers	
	QoS features	
33	Switch should support 8 queues per port	
34	should support priority queue	
35	should support Weighted Fair Queue or Weighted round robin or equivalent	
36	should support WRED and DSCP for CPU generated traffic	
37	should support ACL based classification for QoS	
39	Should support rate limiting function like policing and shaping	
	Management and Troubleshooting	

40	Switch should support Telnet, SSHv2, https, SNMPv1/2/3, configuration rollback feature for ease of management	
41	Switch may support API Driven configuration and support Netconf and Restconf using YANG data model. It may support automation tool like python. It is an optional feature.	
42	Device should support advanced mirroring features.	
43	should support NTP/IEEE 1588 PTP	
44	Device should support real time data collection with sflow/netflow.	
45	Switches need to be provided with all software license from day-1 as per RFP specification	
46	Switch should support streaming Real-time telemetry from Day 1	

S.No	Distribution/Service Switch	
	Hardware and Performance	
1	Switch should be fixed 1RU based configuration to support at least 48*25G or more. The individual interface should be configurable to 1G & 10G if required.	
2	Device should have 4x 40/100G Fibre ports with support breakout to provide additional 16 number of 10/25/50G interfaces.	
	The switch should come with 4 X 40G ports Populated from day one supporting upto 1Km and 15 SFP (1G) ports populated from day one supporting upto 1 Km.	
3	Device should support upto 80K MAC address	
4	Device should support upto 30K IPv4 Prefix routes	
5	Switch must have redundant power supplies(1+1) and fans(N+1)	
6	Switch should have field replaceable power supplies and FAN trays	
7	Device should have total Throughput of 3.6Tbps or more.	
	Operating System	
8	Shall support modern modular operating system designed for scalability and reliability	

9	Shall support auto process recovery from failures	
10	Shall support Health monitoring and self-healing	
11	Shall support Single Operating System binary image for all switch models proposed aspart of the design.	
12	Shall support Industry standard CLI	
	L2 Feature	
13	Switch should support Ethernet standards like IEEE802.1p, IEEE802.1Q, Flow control, Jumbo frame, 802.1D, 802.1w, 802.1s, Jumbo frames (9216), 802.3ad, 4K VLAN	
14	Device should support MST/per-vlan RSTP, BPDU Guard, Loop Guard or equivalent	
15	Device support LLDP and LACP to bundle links and detect miscalling issues.	
	L3 Features	
16	Device should support Routing Protocols: OSPFv2 with multiple instances, OSPFv3, BGP,MP-BGP, and RIPv2	
17	Device Should support Graceful restart for BGP,OSPF v2 and v3.	
18	Device Should support Policy Based Routing (PBR) for IPv4 and IPv6, VRRP V4 and V6,Resilient ECMP, Unicast Reverse path forwarding (urpf), and Inter-VRF route leaking	
19	Device should support VXLAN+EVPN leaf-spine overlay technology	
20	Device should have support for IRB	
21	Device should support IPv4 and IPv6 clients in EVPN based overlay network	
22	Device should support active-active EVPN multi-homing	
23	Device should support Dynamic NAT options like Many-to-Many NAT and Many-to-OneNAT (PAT) at line rate with no additional latency.	
24	Device should support IGMP v2/v3,PIM-SM / PIM-SSM, VRF Support for IP Multicast,Multicast Source Discovery Protocol (MSDP)and IP Multicast Multipath. Support for Anycast RP (RFC 4610) is optional.	
	Security	
25	should support port ACL with l2, L3 and L4 parameters	
26	Should support Storm control and Control Plane protection (CoPP)	

27	Device should protect against ARP and DHCP spoofing by ensuring that a port will only permit IP and ARP packets with IP source addresses that have been authorized.	
28	Device should support multicast accounting to AAA servers	
	QoS features	
29	Switch should support 8 queues per port	
30	should support priority queue	
31	should support Weighted Fair Queue or Weighted round robin or equivalent	
32	should support WRED and DSCP for CPU generated traffic	
33	should support ACL based classification for QoS	
34	Should support rate limiting function like policing and shaping	
	Management and Troubleshooting	
35	Switch should support Telnet, SSHv2, https, SNMPv1/2/3, configuration rollback feature for ease of management	
36	Switch may support API Driven configuration and support Netconf and Restconf using YANG data model. It may support automation tool like python. It is an optional feature.	
37	Device should support advanced mirroring features.	
38	should support NTP/IEEE 1588 PTP	
39	Device should support real time data collection with sflow/netflow.	

40	Switches need to be provided with all software license from day-1 as per RFP specification	
41	Switch should support streaming Real-time telemetry from Day 1	

	Access Switch 48-Port	
	Performance and Scalability	
1	The switch should have minimum of 48x10M/100M/1G downlink Ethernet port and 4x25 or More Uplink SFP Ports in fixed Form Factor. The switch should come with 2 SFP28 ports Populated from day one supporting upto 10 Km and 2 SFP28 ports	

	<p>Populated from day one supporting upto 70 m. Or The switch should have minimum of 48x10M/100M/1G downlink Ethernet port and 2x25 Uplink SFP Ports with 2 Stacking Port & required cable for both in fixed Form Factor . The switch should come with 2 SFP28 ports Populated from day one supporting upto 10 Km.</p>	
2	The switch should support minimum of 30W(802.11at). Simultaneously on all the downlink ports.	
3	Switch should operate at wire speed and should have Non-blocking architecture.	
4	Switch should have field replaceable power supplies and field replaceable FANs.	
5	Switch should have 1+1 Power supply and N+1 redundant Fan Tray	
	L2 Feature	
7	Shall support upto 32K MAC.	
8	Spanning Tree Protocol (IEEE 802.1.D, 802.1W, 802.1S)	
9	Switch should support VLAN Trunking (802.1q) and should support 4k VLAN and MACbased VLAN assignment	
10	Switch should support basic Multicast IGMP v1, v2, v3	
11	Shall support Shall support RPVST+ / VSTP or equivalent	
12	Shall support LACP	
14	Shall support Port Mirroring and should support L2/L3/L4 filtering on Mirror session.	
15	Shall support Jumbo Frames 9K Bytes	
16	Shall support 802.1AB Link Layer Discovery Protocol (LLDP) and also LLDP enhancements for PoE including Media Endpoint Discovery (MED) attributes reporting	
	L3 Feature	
17	Switch should support 30K IPv4/ 7K IPv6 Routes	
19	Switch must support protocols like BGPv4, OSPFv2/v3 , MP-BGP,RIPv2,BFD , PIM-SM,Policy based routing	
20	Switch should support VRRP,	

21		
	Network security features	
23	The switch should support IEEE 802.1x Authentication framework, MAC authentication, Dynamic VLAN assignment and CoA.	
24	The switch should support SSHv2, SNMPv3, TACACS+ and RADIUS	
25	Switch Should act as DHCP Relay.	
26	Switch should support Ingress ACL Scale of 4k or better.	
27	Switch should support DHCP spoofing protection mechanism or equivalent.	
	Quality of Service (QoS) & Control	
28	The switch should support 8 egress queues per port to enable differentiated management	
29	The switch should support Standard 802.1p CoS field classification and Differentiated services code point (DSCP) field classification	
30	The switch should support Rate Limiting function to guarantee bandwidth	
31	The switch should support SPQ (Strict Priority Queueing), WRR (Weighted Round robin), Policing, shaping and Per-Priority Flow control (PFC) or equivalent	
32	Switch should support IEEE 1588/NTP	
	Operation and Management	
33	Switch should have dedicated management port and USB ports to upload configuration files and image	
34		
35	Switch should Provide persistent/constant PoE power even when switch is under maintenance	
36	Shall support ISSU for software upgrades and hitless patching	
	Management and Troubleshooting	
37	Switch should support telnet, ssh, https, SNMPv3, configuration rollback feature for ease of management	
38	Switch may support API Driven configuration and support Netconf and Restconf using YANG data model. It may support automation tool like python. It is an optional feature.	

39	Switch should support port mirroring based on Inbound & outbound, mirroring based on ports, vlans.	
40	Switches need to be provided with all software license from day-1 as per RFP specification	
41	Switch should support real time data collection with sflow/netflow.	
42	Switch should support real-time telemetry	
	Other	
44	should support IPv4 and IPv6 dual stack operations simultaneously	
45	Hardware replacement warranty and TAC support should be directly from the OEM. OEM email-id and India Contact support no. to be provided.	
46	Required SFP Module should be from Same OEM	

	Access Switch 24-Port	
	Performance and Scalability	
1	<p>The switch should have minimum of 24x10M/100M/1G downlink Ethernet port and 4x25 or More Uplink SFP Ports in fixed Form Factor . The switch should come with 2 SFP28 ports Populated from day one supporting upto 10Km and 2 SFP28 ports Populated from day one supporting upto 70 m.</p> <p style="text-align: center;">Or</p> <p>The switch should have minimum of 24x10M/100M/1G downlink Ethernet port and 2x25 Uplink SFP Ports with 2 Stacking Port & required cable for both in fixed Form Factor . The switch should come with 2 SFP28 ports Populated from day one supporting upto 10 Km.</p>	
2	The switch should support minimum of 30W (802.11at) on all 24 ports simultaneously	
3	Switch should operate at wire speed and should have Non-blocking architecture.	
4	Switch should have field replaceable power supplies and field replaceable FANs	
5	Switch should have 1+1 Power supply and N+1 redundant Fan Tray	
	L2 Feature	

7	Shall support upto 32K MAC.	
8	Spanning Tree Protocol (IEEE 802.1.D, 802.1W, 802.1S)	
9	Switch should support VLAN Trunking (802.1q) and should support 4k VLAN and MAC based VLAN assignment	
10	Switch should support basic Multicast IGMP v1, v2, v3	
11	Shall support Shall support RPVST+ / VSTP or equivalent	
12	Shall support LACP	
13	Shall support active/active layer2/Layer3 multipathing redundancy (MLAG)	
14	Shall support Port Mirroring and should support L2/L3/L4 filtering on Mirror session.	
15	Shall support Jumbo Frames 9K Bytes	
16	Shall support 802.1AB Link Layer Discovery Protocol (LLDP) and also LLDP enhancements for PoE including Media Endpoint Discovery (MED) attributes reporting	
	L3 Feature	
17	Switch should support 30K IPv4/ 7K IPv6 Routes	
18	Switch must support protocols like BGPv4, OSPFv2/v3 , MP-BGP, RIPv2, BFD , PIM-SM, Policy based routing	
19	Switch should support VRRP,	
20		
	Network security features	
23	The switch should support IEEE 802.1x Authentication framework, MAC authentication, Dynamic VLAN assignment and CoA.	
24	The switch should support SSHv2, SNMPv3, TACACS+ and RADIUS	
25	Switch Should act as DHCP Relay.	
26	Switch should support Ingress ACL Scale of 4k or better.	
27	Switch should support DHCP spoofing protection mechanism or equivalent.	
	Quality of Service (QoS) & Control	
28	The switch should support 8 egress queues per port to enable differentiated	

	management	
29	The switch should support Standard 802.1p CoS field classification and Differentiated services code point (DSCP) field classification	
30	The switch should support Rate Limiting function to guarantee bandwidth	
31	The switch should support SPQ (Strict Priority Queueing), WRR (Weighted Round robin), Policing, shaping and Per-Priority Flow control (PFC) or equivalent	
32	Switch should support IEEE 1588/NTP	
	Operation and Management	
33	Switch should have dedicated management port and USB ports to upload configuration files and image	
35	Switch should Provide persistent/constant PoE power even when switch is under maintenance	
36	Shall support ISSU for software upgrades and hitless patching	
	Management and Troubleshooting	
37	Switch should support telnet, ssh, https, SNMPv3, configuration rollback feature for ease of management	
38	Switch may support API Driven configuration and support Netconf and Restconf using YANG data model. It may support automation tool like python. It is an optional feature.	
39	Switch should support port mirroring based on Inbound & outbound, mirroring based on ports, vlans.	
40	Switches need to be provided with all software license from day-1 as per RFP specification	
41	Switch should support real time data collection with sflow/netflow.	
42	Switch should support real-time telemetry	
	Other	
44	should support IPv4 and IPv6 dual stack operations simultaneously	
45	Hardware replacement warranty and TAC support should be directly from the OEM. OEM email-id and India Contact support no. to be provided.	

46	Required SFP Module should be from Same OEM	
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	Wireless Controller Specifications	
1.1	Solution Architecture The System Architecture enlists the expectation from the "Total Solution", that are common to Wi-Fi services including, but not limited to, Access, WIDS and WIPS.	
1.2	The proposed Wi-Fi controller(s) should be cloud based Management solution	
1.3	Solution must support an independent intelligent edge architecture for Wi-Fi access. In case of non-reachability of the controller, all WLAN services should be delivered at the edge.	
1.4	All Wi-Fi, WIDS, WIPS & RRM (Radio resource management) services should be functional if the link between AP/Sensor and its management controller goes down. It must also be possible to onboard new clients in such a scenario.	
1.5	The solution must facilitate Control and Provisioning of Wireless Access Point devices and ensure data encryption between access point devices and controllers across remote WAN/LAN links	
2	Management Controller	
2.1	The Controller must provide centralized Wi-Fi and WIPS management system	
2.2	The controller must have AP Group based policy management and administration.	
2.3	The Controller should have role based admin rights to manage the controller.	
2.4	The controller should support open API's for integration with 3rd party configuration management, inventory management, performance management, process automation, reporting, WLAN monitoring tools etc.	
2.5	The controller should enable application visibility and control. It should display list of applications with their data usage for a specific SSID.	
2.6	The Solution should allow blocking traffic based on IP address, port, URL, hostname, application etc. and QoS (for example: bandwidth restriction for the SSID, QoS tagging of special traffic like Voice) at the edge (AP).	
2.7	The solution should locate wireless devices (APs and Clients) on floor maps	
2.8	The solution must provide location tracking of a DoS attacker	

2.9	Controller should support SNMP v1, v2c, v3/ Webhooks /API	
2.10.	The controller should provide remote packet capture for troubleshooting	
2.11.	The system should support remote packet captures on AP radio and Ethernet ports without disrupting the client connectivity of any of the APs.	
2.12.	The solution should maintain controller user action logs which should include all activities performed by the user like login, any configuration changes made on the system, device deletion, device authorization, log out etc., for at least 7 days.	
2.13.	The solution should enable wireless client association analytics logs which should record client MAC address, AP connected to, data transfer, data rate, session duration, content - domain (http, https, IP address), for at least 30 days. In case of support for less than 30 days, an automated solution must be provided to download logs to local repository.	
2.14.	The solution must allow VLAN segmentation at the edge.	
2.15.	Time Schedules - the solution must allow configuration of time schedules when WLAN is / isn't available (For example: SSIDs can be active from 9 am to 5 pm and then automatically disabled). If not supported then feature must be provided by support of external/Third Party app.	
2.16.	Solution should support External Splash Page	
2.17.	The solution should support RADIUS and OTP-based authentication mechanisms (SMS gateway to be provided by Customer in case of OTP based authentication) for Guest users	
2.18.	Solution should support "Walled Garden" or equivalent feature for Guest Network	
2.19.	Solution should support URL redirection	
3.	Management and Monitoring	
3.1	The solution should have all locations consolidated dashboard and location-specific dashboard as well.	
3.2	The solution must send notifications based on location and alarm type	
3.3	Client Fingerprinting - The solution should detect and identify all types of Wi-Fi enabled client devices.	
3.4	The solution must provide a device summary (for APs, and clients) report per location	
3.5	The solution must allow for report generation.	

3.6	The controller and Wi-Fi AP devices management should support command line (ssh /telnet)/web based (https) administration.	
3.7	The solution shall support Location tracking of any particular client and AP	
3.8	The solution should support automated root cause analysis of WiFi issues such as lowRSSI, low data rate, Authentication related issue.	
3.9	The solution should highlight client connection failures during association, authentication and network entry. It should also identify the cause of failure.	
4	Software & System Mangement	
4.1	The system should support manual and scheduled automatic system backup.	
4.2	The controller and AP can be on different software versions.	
4.3	The controller should be able to rollback all APs/group of APs to previous version.	
4.4	The Controller Upgrade should not disrupt Wi-Fi and WIPS services.	
4.5	The AP Upgrade to controller version should be flexible and be scheduled on per AP/APgroup or site basis as required.	
4.6	For management and monitoring operations, the controller must provide a webinterface/command-line interface and APIs.	
4.7	The Solution shall support Hitless AP upgrade feature	
5.	WIPS	
5.1	The solution must auto-classify APs precisely in different categories as managed / authorized (ie. managed device connected to the networks), external (i.e. un-managedAPs not connected to the networks, e.g. neighbors), and rogue APs (un-managed AP connected to the networks)	
5.2	The solution must have the capability of auto classifying Wi-Fi clients as authorized(managed clients connecting to the network), guest, and rogue in addition to manual classification.	
5.3	The solution must correctly detect Devices connecting to the network. Additional solution if required must be provided to satisfy this requirement	

5.4	<p>The solution must be able to detect and automatically prevent all types of Rogue(unauthorized APs connected to the network) APs, such as:</p> <ul style="list-style-type: none"> a) APs such as Bridge and NAT b) MAC-adjacent Open/Encrypted Wi-Fi routers c) Non-MAC-adjacent OPEN Wi-Fi routers d) Virtual APs on network connected laptops (e.g., Connectivity software on Windows 7/10) e) Non-MAC adjacent APs having MAC ACLs 	
5.5	The solution must be able to detect and automatically prevent all Wi-Fi enabled devices such as smartphones bridging / ICS when connected to the network	
5.6	The solution must detect mis-configured authorized APs and automatically prevent them.	
5.7	The solution should detect and prevent outside client trying to connect to the WLAN	
5.8	The solution must detect Honey Pot attacks including its advanced variants such as Multiport attack. It should be able to prevent the authorized client from connecting to a honeypot AP.	
5.9	The WIPS solution should NOT affect the operation of an external (i.e. neighbors) or managed access point while preventing a rogue AP on the same channel.	
5.10.	The solution must be able to detect wireless Denial of Service (DoS) attacks	
5.11.	The solution must provide forensic data aggregated for major threat vectors like Rogue AP, Honeypot AP, Mis-Configured AP, DoS, Unauthorized Association, Ad Hoc Networks, Bridging/ICS Client, Mis-Association.	
6	Guest Management	
6.1	The solution should include web based guest user creation by front office users. Any additional solution if required must be provided.	
6.2	The solution should support self-registration by guest users and admin users can approve the registration.	
6.3	The solution should allow blocking of guest user for specific time frame between two association sessions.	
6.5	The solution should support portal page that can be used to display the terms and conditions of accessing the guest network as well as any other information as needed.	

6.6	The solution should support for Login Timeout, Blackout Time, Redirect to URL andwalled garden settings.	
6.7	The solution should support multiple custom portals - separate portals can beconfigured for each SSID.	
6.8	The solution should support authentication using social plugins - guest users can accessWiFi using their social media account credentials.	
6.9	The solution should support authentication using private guest book account.	
6.10	The solution should support creating a custom portal for click-through access, portal page can also be created to ask user to fill some basic information like name, age, emailto provide access to WiFi.	
6.11.	The solution should support SMS OTP-based authentication support.	
7	License, Warranty and Support	
7.1	The Total solution should come with all required feature licenses from first day ofinstallation	
7.2	The Total solution should have 10 years hardware/Software/Licences warranty for AP's,controller, Adapters and every item supplied as a part of solution	
7.3	The Total solution should have technical support for Hardware, Software, Softwareupgrades, all license cost from the OEM for first 10 years.	
7.4	The Total solution should come with the latest and updated version available at no extracost	
7.5	Any new release of firmware and software must be updated regularly within 10 yearswarranty term.	
7.6	Should Provide TAC support direct from OEM not from outsourced TAC	

S.N	AP – Features Type-1 (Indoor)	
O.		
1	AP should support at least IEEE Wi-Fi 802.11ac Wave 2 standard.	
4	AP must support Advanced Encryption Standards (AES), Temporal Key Integrity Protocol(TKIP).	
5	Wi-Fi AP devices and the solution must support the following protocols: IEEE 802.11a/b/g, IEEE 802.11n, IEEE 802.11ac (WAVE 2), IEEE 802.11h, IEEE 802.11d,	

	802.11i, 802.11 r/k/v	
6	The Wi-Fi AP devices and the solution should support the following authentication methods: 802.1X support, per-session encryption keys (WPA2)	
8	Wi-Fi APs and the system should have ability to set SSIDs as bridge or NAT.	
9	Wi-Fi APs and the system should have support for 802.1Q VLANs.	
11	Supply should include ceiling/wall mountable units equal to the no. of APs quoted.	
12	APs shall be compliant with all applicable national regulation.	
13		
14	AP must support SSH protocol for local or remote access to device through CLI/Webadministration.	
15	At least 8 SSIDs shall be supported in each of the 2.4GHz and 5GHz bands, with the ability to map each SSID to a separate VLAN.	
16	The SSID profiles/configurations of 2.4GHz and 5GHz radios should be independent.	
17	APs shall support Hotspot 2.0	
18	The device must be capable of providing Wi-Fi access with 24/7 wireless intrusion prevention (WIPS) in a single device both operating simultaneously.	
19	The device should be remotely upgradeable from the controller, so that new features /upgrades can be added.	
21	AP Should support 2 X Gigabit Ethernet Port.	
22	AP must support minimum 4X4 multi user, multiple-input multiple-output (MU-MIMO)	
23	Security mechanisms should be in place to protect the communication between the controller and the APs.	
24	AP must support simultaneous 802.11n on the 2.4GHz and 802.11ac Wave 2 on the 5GHz radios.	
25	AP shall support up to 800 Mbps for 2.4 GHz radio and 1.7 Gbps on 5GHz radio.	
26	AP shall support 20/40/80 MHz channel width in 5GHz band.	
27	Must support 802.11 dynamic frequency selection (DFS).	
28	Must support up to 24dBm Tx power.	

29	Antenna gain should be minimum 3dBi for 2.4 GHz and 5 GHz.	
30	AP must able to handle RF interference from other WiFi and non-WiFi sources and automatically assign channel and power so as to deliver high performance and reliable communication.	
33	The AP must support 802.11ac beamforming (transmit beamforming).	
34	AP must support AP load-balance between 2.4GHz and 5GHz band.	
35	AP must incorporate radio resource management for power, channel, coverage hole detection and performance optimization. These features should work even if the link to controller is down.	
37	The AP must support IPv4 and IPv6 for management and data traffic.	
38	The AP must be capable of receiving IP address via DHCP for IPv4/IPv6 and SLAAC for IPv6.	
39	The AP shall support operating temperature of 0° C to +40° C.	
40	The AP must support EoGRE/VXLAN for L2 tunnelling or equivalent tunnelling mechanism to achieve L2 tunneling.	
41	The AP shall support third party analytics integration for real-time data transfer.	
42	AP shall support self-healing wireless mesh networking.	
43	Must support POE+ to power up the AP.	

AP Type-II (Outdoor) – Features		
1	AP should support at least IEEE Wi-Fi 802.11ac Wave 2 standard.	
2	AP should able to discover controllers on the same L2 domain.	
3	AP must able to discover controller across L3 network.	
4	AP must support Advanced Encryption Standards (AES), Temporal Key Integrity Protocol (TKIP).	
5	Wi-Fi AP devices and the solution must support the following protocols: IEEE 802.11a/b/g, IEEE 802.11n, IEEE 802.11ac (WAVE 2), IEEE 802.11h, IEEE 802.11d, 802.11i, 802.11 r/k/v	
6	The Wi-Fi AP devices and the solution should support the following authentication methods: 802.1X support, per-session encryption keys (WPA2)	
7	Wi-Fi APs and the system must support Fast Handoff between APs.	
8	Wi-Fi APs and the system should have ability to set SSIDs as bridge or NAT.	
9	Wi-Fi APs and the system should have support for 802.1Q VLANs.	

10	Wi-Fi AP devices should support configurable management VLAN.	
11	Supply should include Pole mountable units equal to the no. of APs quoted.	

FTTH OLT

The optical line terminal (OLT) device should be rack mountable.	
should Support Gigabit Passive Optical Network (GPON), 10 Gigabit Symmetrical PON (XGS-PON) and time and wavelength division multiplexing PON (TWDM-PON)	
Should support up to 120 Gb/s full duplex throughput.	
Should support 16-port GPON or 4-port universal next generation (NG)-PON (XGS-PON/TWDM-PON). The device should be populated with 4 GPON XFP optics from day 1. 1. The GPON XFP optics should from same OEM as OLT.	
Should provide 10/10 Gb/s symmetric and/or 10/2.5 Gb/s asymmetric	
Should support 8 x 1/10 Gb/s small form-factor pluggable (SFP) modules. The device should be populated with 4 10 Gb/s SFP module from day 1.	
Should support Link aggregation (LAG)	
Should support Simple Network Management Protocol (SNMP) and command line interface (CLI)-based management system.	

Passive Items:

Approved Make : Panduit, Molex, Comscope, Siemon and R&M	
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	Technical Specification	Compliance Y/N
Cat 6 4 Pair Cable		
1	Type Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system	

2	Network support	Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond.	
3	TIA / EIA 568-B.1	ETL/3P Verified, UL Listed and UL channelverified- All three Certificates are mandatory	
4	IEEE 802.3ab	, ETL/3P verified	
5	Warranty	25-year systems warranty; Warranty to cover Bandwidth of the specified and installed cabling system, and the installation costs. Site certificate Should be issued by OEM	
6	Performance characteristics to be provided along with bid	Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel	
7	Manufacturer	All Copper cabling component should be from same OEM.	
8	Conductors	23 AWG solid bare copper	
9	Insulation	Polyethylene	
10	Approvals	UL Listed	
		ETL verified to TIA / EIA Cat 6	

11	Frequency tested up to	250 MHz minimum	
12	Packing	Box of 305 meters	
13	Impedance	100 Ohms + / - 15 ohms	
14	Performance characteristics to be provided along with bid	Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR andPS ACR	
15	Delay Skew:	45ns Max	
16	Impedance:	100 ± 15 Ohms	
17	Current Rating:	1.5 A Max	
18	Conductor DC Resistance:	66.5Ω/km	
19	Voltage:	150VAC	
20	Propagation delay:	535ns/100m @250MHz	
21	Mutual Capacitance:	5.6nF/100m Nominal	
22	Insulation Resistance:	500 MΩ Minimum	
23	Dielectric Strength:	1000 V RMS	
24	Contact Resistance:	10 mΩ Max	
Cat 6 I/O			
1	Features and Benefits		
		I/O Should be With Spring-Loaded Shutter or /equivalent	
		IDC V-shaped contacts that flex not fatigue when terminated.	
		Features pointed IDC towers to speed termination and enhance cable retention.	
		Dual color-coding allows for 568 A/B wiring configuration.	
		Can be terminated using industry standard punch-down tools.	
		RJ-11 compatible	
		Molded category identification on I/O face as well as optional port identification icons.	
		USOC Wiring Sequences Available	
2	Dust Proof	RJ45 I/O should be supplied with Shutter/Dust cap to avoid Dust/equivalent	
3	RJ45 I/O Compatibility	2a. Individual Compatible RJ45 I/O	
		2b. Pointed IDC Tower on RJ45 I/O for easytermination	
		2c. Half Plugged Patch Cord should bespitted out if not properly plugged in	
4	Mechanical Characteristics		
	Plastic Housing:	Thermoplastic UL94V-0 rated or equivalent	
	Operating Life:	Minimum 750 insertion cycles	
	Contact Material:	Copper Alloy	
	Contact Plating:	50μ” Gold/100μ” Nickel	

	Contact Force:	100g minimum	
	Plug Retention Force:	11 lbf minimum	
5	IDC Connector	prevents incomplete mating protects from dust and contaminants	
	Plastic Housing:	Thermoplastic UL94V-0 rated or equivalent	
	Operating Life:	Should be Minimum 20 reterminations	
	Contact Material:	Copper Alloy	
	IDC Contact Plating:	Tin/Lead Plate	
	Wire Accommodation:	22-24 AWG solid	
6	Electrical Characteristics		
	Interface Resistance:	20 milliohms	
	Initial Contact Resistance:	2.5 milliohms	
	Insulation Resistance:	>100 Megaohms	
7	Parts List:		
Wall plates			
1	Features and Benefits	The stylish unloaded Wallplates to accept the UTP Connector. The unloaded Synergy Wallplates are available in 1, 2 and 4 port variants, in five colours, to co-ordinate with any decor and any installation size.	
2	Accommodates	Accommodates UTP, STP I/O Accommodates single bezel Fibre modules Accommodates media configurable modules	
3	Material	VE10 ABS	
24 Port loaded Patch Panel 1U Height			
Features and benefits			
1		Each port Should be features the spring-loaded shutter/equivalent – – Should be protects from dust and contaminants	
		Should be IDC V-shaped contacts that flexnot fatigue when terminated	
		Should be Features pointed IDC towers to speed termination and enhance cable retention	
		Should be Front and rear port labelling as well as panel identification label	
		Should be Integral cable management shelf ensures bend radius compliance	

		Should be Molded category identification on each port face as well as optional port identification icons	
	Mechanical Characteristics		
	Plastic Housing:	Should be thermoplastic UL94V-0 rated or equivalent	
	Operating Life:	Should be minimum 750 insertion cycles	
	Contact Material:	Should be copper Alloy	
	Contact Plating:	50µ" Gold/100µ" Nickel	
	Contact Force:	100g minimum	
	Plug Retention Force:	11 lbf minimum	
	IDC Connector		
	Plastic Housing:	Thermoplastic UL94V-0 rated or equivalent	
	Operating Life:	Should be minimum 20 reterminations	
	Contact Material:	Copper Alloy	
	IDC Contact Plating:	Tin/Lead Plate	
	Wire Accommodation:	22-24 AWG solid	
	Electrical Characteristics		
	Interface Resistance:	20 milliohms	
	Initial Contact Resistance:	2.5 milliohms	
	Insulation Resistance:	>100 Megaohms	
	Parts List:		
	Patch Panel Characteristics		
	Material:	cold rolled steel	
	Thickness:	.060" (1.52mm)	
	Coating:	Graphite Grey Powder coat	
	Temperature range:	-10°C to +60°C	
	Commercial Standards		
		TIA/EIA-568-C.2 Component Compliant	
		FCC Subpart F 68.5 Compliant	
		IEC-603-7 Compliant	
		ISO 11801 Class E Compliant	
		ETL/3P Verified for Category 6 Component Compliance & UL Listed	
	Dimensions		
		24 Port with trays	
		44mm H x 483mm W x 98mm D	
Cat 6 Patch cord			
1	Type	Cat 6 U/UTP End-to-End Solution and redesigned to support data networks for 10/100BASE-T and 1000BASE-T applications.	

2	Conductor size:	Should be 24 AWG stranded copper wire	
3	Nom. O.D.:	5.9mm	
4	Sheath:	Should be LSOH	
5	Bend radius:	4X O.D.	
6	Boots	Transparent Plug with anti-snag slip on boots	
7	RJ45 Plug Standard	ISO/IEC 60606-7-4 and FCC 47 Part 68	
8	Sheath Standards	Fire Propagation compliant with CSA FTI, IEC60332-1, IEC 61034	
9	Operating temperature range:	Should be -20°C to 60°C	
10	MIN operating life	:Should be 750 insertion cycles	
11	RJ45 plug and boot material:	Clear polycarbonate	
12	Contact material:	0.35mm thick copper alloy	
13	Contact plating:	Selective gold	
14	RJ45 plug dimensions compliant with:	ISO/IEC 60603-7-4 and FCC 47 Part 68	
15	Commercial Standards	ISO/IEC 11801:2002/Amd 2:2010 Cat 6-, TIA-568-C.2 Cat 6	
16		Should be ETL Verified/3P certified	
17	Fire Propagation Tests:	Should be LSOH Sheath: CSA FT1, IEC 60332-1, IEC 61034	
18	Standard length available	Should be 0.5mt to 10 mts	

	Approved Make : Panduit,Molex,Comscope ,Siemon and R&M	
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	Technical Specification	Compliance Y/N
	Optical Fiber Armored Single-Mode OS2	

1	Cable Type	Optical fibres in water blocked loose tube, taped, corrugated steel tape armoured (STA) polyethylene (HDPE) outer sheathed embedded with two steel wires on the periphery. The cables are with UV Stabilized PE Jacket and protected from Rodent attacks. complying to ISO/IEC 11801, EN50173, ANSI/TIA 568-C.3, Telcordia GR-20; suitable for use in indoor / outdoor ducts, direct burial and backbone cabling	
2	Fiber Type	Single Mode, 9/125 micron primary coated buffers, OS2 (IEC 60793-2-50, B1.3 and ITU T G652.d). Shall be manufactured using Vapor Axial Deposition technology.	
3	Construction type		
	Tube:	Polybutylene, Terephthalate(PBT)	
	Tube colour:	White	
	Tube diameter	3.0/2.0 mm nominal OD/ID	
	No of fibres:	4/6/8/12	
	Fibre colour sequence	Blue, Orange, Green, Brown, Slate (Grey), White, Red, Black, Yellow, Violet, Pink, Aqua	
	Water Blocking	Thixotropic Gel (Tube) Petroleum Jelly (Interstices)	
	Core Wrapping	Polyethylene Terephthalate	
	Armouring:	Corrugated Steel Tape Armour (ECCS Tape) Thickness > 0.125mm	
	Peripheral Strength Member	Two Steel wires (0.9 mm dia)	
	Ripcord:	Ployester based yarns below armoured tape for easy ripping	
	Outer Sheath	UV Stabilised Polyethylene (HDPE)	
	Sheath thickness	2.0 mm nominal	
	Sheath colour	Black	
4	Standards		
		complying to ISO/IEC 11801 2nd Edition, type OS1/OS2; AS/ACIF S008; AS/NZS 3080 ; TIA/EIA 568.C.3; IEC-60793-1, 60793-2 EN50173, ANSI/TIA 568-C.3, Telcordia GR-20; suitable for use in indoor / outdoor ducts, direct burial and backbone cabling	
5	Mechanical characteristics		
	Dimensions and Mass Overall Cable (Nominal):	9.0 MM	
	Mass (Nominal)	80 kg/km	
	Cable length	2 km ± 10%	
	Max. Bending Radius (during installation)	20 X Overall diameter	
	Max. Bending Radius (during full load):	10 X Overall diameter	

	Max. Tensile Strength-Short Term	1500N	
	Max. Crush Resistance-Short Term:	2000N/10 cm	
	Operating Temperature range	-40°C ±70°C	
6	Optical characteristics		
	Core Diameter @ 1310nm	9 + 0.6 µm	
	Cladding Diameter	125 + 1.0 µm	
	Cladding Non circularity	< 1.0 %	
	Core Non circularity	< 6.0 %	
	Core-Cladding Concentricity error	< 0.6 µm	
	Primary Coating Diameter-uncoloured	245 + 10 µm	
	Primary Coating Diameter-coloured	250 + 15 µm	
	Primary Coating Non Circularity	< 6.0 %	
	Primary Coating Cladding Concentricity error	< 12.5 µm	
	Proof Stress Level	> 0.7 (~ 1%) GPa	
	Strip Force (Peak):	1.0 < F peak.strip < 8.9	
	Zero dispersion wavelength	1310-8/+12 nm	
	Zero dispersion slope	> 0.091 ps/(nm ² .km)	
	Fibre curl:	> 4 m-radius of curvatuer	
	Cut-off wavelength	< 1260 nm	
	Mode field diameter at 1310	9.3 ± 0.5 µm	
	Mode field diameter at 1550	10.4 ± 0.8 µm	
	Macrobending loss @ 1550 nm, 100 turns on a 60mm mandrel	<0.5 db	
	Max (chromatic)dispersion:		
	@1270-1340nm	<5.3ps/nm-km	
	@1285-1330nm	<3.5ps/nm-km	
	Polarisation mode dispersion (PMD)		
	coefficient, cabled	< 0.5 ps/sq km)	
	PMD Link Design Value	< 0.2 ps/sq km) RoHS Complaint	
7	Electrical/Optical Characteristics		
	Attenuation	Characteristics - Optical Performance Max. Attenuation (Cable with fibres) At 1310 nm: 0.35 dB/km At 1550 nm: 0.22 dB/km Max. Average Attenuation; At 1310 nm: 0.33 dB/km At 1550 nm: 0.21 dB/km	
Rack Mount Fiber Panel			

1	Rack Mount	LIU Should have Sliding Drawer with 4 Cable entry/exit points (covered with rubber grommets)	
2	Material	Powder coated mild steel	
3	Accommodation and Supports	Accommodation of single mode cable multimode fibers Capable of supporting SC and LC interface - For 24 Port with SC Coupler Management rings within system to accommodate excess fibre bend radius.	
4	Compatiabiliy	Labelling for port identification, Fiber Management rings to accommodate excess fiber cordage behind the trough adapters and maintain fiber bend radius	
5	No. of fiber ports	The 1U 24 Port LIU must be expandable up 96 ports.	
Optical Fibre Adapter Plates/adaptors			
1	Features and Benefits	Optical Fibre Adapter Plates are modular platform that is compatible with a various Enclosures and Fibre Splicing Systems. Adapter density ranges from 6/12 fibres to 24 fibre per plate, allowing for 1U 96 fibre density. Available in a variety of connectors and performance levels, the Plates require no tools for installation or should have individual adaptors	
		From 6 Fibre to 24 Fibre Density – Allows you to reuse your existing enclosure and increase your fibre count to meet demand or should have individual adaptors	
		Greater Asset Utilisation – Easily Expandible – allows multiple generational uses of the enclosure for the same rack area. Our blank plates and a small profile plate ensures you only pay for the adapters you need.	
		Snap Rivets – allows for easy installation and removal	
		100% Factory Tested – Guaranteed performance	
2	Commercial Standards	ISO/IC 11801, ANSI/TIA/EIA 568.B.3-2000, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-596	
3	Mechanical Characteristics	Dimensions: 86 x 33mm	
		Plate Material: Black Electroplate or Thermoplastic	
LC-LC OFC Patch Cords			
	Type of connectors	LC LSOH Jacket - Reduces toxic / corrosive	
	Length	Should be 3Mtr	

Polishing	100% Factory polished and tested	
Insertion Loss	Less than 0.3dB per connector	
Attenuation	3.5dB/km @ 850 nm & 1.5dB/km @ 1300nm	
Standards	ROHS Compliant	
Jacket colour	Industry Standard Colour - OS1-Yellow	
Make and Type	LC to LC Duplex Fiber Optic Patch Cord 50/125 Micron	
Cable Sheath	LSZH	
Cable Diameter	1.6 mm	
Ferrule	Ceramic	
Buffer	Tight buffered	
Temperature Range	.-40 Degree C to +85 Degree C	
Buffer Diameter:	900µm	
Primary Coating :	245µm	
Strength Member:	Aramid Yarn	
Jacket Material:	LSOH IEC 61034-1 & 2, IEC-60332-1, IEC-60754- 1 & 2	
Pigtail		
Type of connectors	SC / LC LSOH Jacket - Reduces toxic / corrosive	
Length	1.5 Mtrs	
Polishing	100% Factory polished, tested and Guaranteed Performance	
Standards	ROHS Compliant	

1. 42U Network Rack

S.No.	Features	Specifications	Compliance (Yes/No)
1	Key Features	<p>a) Rack should be 800mm/1000mm wide with reducing cable channel of 100mm on both sides and also in front and rear and 1000mm/1200mm in depth.</p> <p>b) Confirm to DIN 41494 or EIA 310D standards.</p> <p>c) Load rating Capacity of 250kg.</p> <p>d) Cabinet can be dismantle and reassemble at site.</p> <p>e) Plain side panels with slam latches should be there.</p> <p>f) Other part/component except vertical profile should be made of CRCA steel and CRCA steel should be of “IS 513 Gr D”</p> <p>g) Thickness of CRCA sheets used for doors is 1.2mm and for side panels is 1mm.</p> <p>h) Fully adjustable and recessible 19” mounting angle from both front and rear.</p> <p>i) Front glass toughened and tinted with easy detachable hinges and rear split perforated doors with “Honeycomb” type of perforation for maximum air circulation and stiffness. Perforation area should be 70% at least of the total door area.</p> <p>j) Should be RoHS complied and ISO Certified manufacturing plants.</p> <p>k) Fan Housing Unit with four fans of 90CFM ratings.</p> <p>l) For Base management castors (Set of 4) should be there 2Nos. with front brakes and 2nos without brakes.</p> <p>m) Earthing kit from top to bottom for proper earthing.</p> <p>n) PDU 19' Octagonal socket 12 X 5/16 Amp with 16 Amp MCB & Indicator with 3MTR cable and Industrial plug.</p>	

		o) Rack to be powder coated with Nano ceramic pre-treatment process using Zirconium coat, and the powder coating process should be RoHS Complied. Powder coating thickness should be 80 to 100 microns.	
2	Make	Rittal/APW-President	
2. 15U Network Rack			
S.No.	Features	Specifications	
1	Key Features	<ul style="list-style-type: none"> a. Confirms to DIN 41494 and EIA 310D standards. b. Fully Recessible 19” equipment mounting angle. c. Heights available 15U d. Depth Options – 600mm . e. Width -500mm f. Front Plain glass door. g. Top and bottom cover with cable entry provision. h. Ventilated top and bottom covers. i. Load rating 60kgs. j. Supply fully assembled and configured with the accessories. k. Fan Housing Unit with two fans. l. 1Nos. PDU 6 amp 5 Socket m. 2nos. Cable Manger (Finger duct) with cover 	
2	Configured Rack Contents	Frame. <ul style="list-style-type: none"> • Front Glass Door. • Panel Mount supports (2Pairs) 	
3	Make	Rittal/APW-President	
3. 1U Horizontal Cable Manager - Finger duct with cover			
S.No.	Features	Specifications	
1	Dimensions (hwd / in.)	2 x 5 x 20	
2		Cold rolled steel with black finish	

3	Product Warranty Period (Worldwide)	5-year warranty	
4	Unit Dimensions (hwd / in.)	1.77 x 3.9 x 19.13	
5		Required mounting hardware included	
6	Make	Rittal/APW-President	
4. Power Distribution Unit 6 amp 5 Socket			
S.No.	Features	Specifications	
1		PDU 19' Octagonal socket 6 X 5 Amp with 16 Amp MCB & Indicator with 2 MTR cable and Industrial plug.	
21. Power Distribution Unit 16 amp 5 Socket 6 Pin each Socket			
S.No.	Features	Specifications	
1		PDU 19' Octagonal socket 12 X 5/16 Amp with 32 Amp MCB & Indicator with 3MTR cable and Industrial plug	

Server:

Technical Specifications	
Processor(s)	2 x Intel® Xeon® CLX-SP 6242 16C/32T 2.8G 22M 10.4GT 3UPI
RAM	12 x 16 GB DDR4 2133 MHZ RDIMM (Max 768GB, 16 DIMMs)
HDD/SSD(s)	3 x 4000GB SAS 7.2K RPM
HDD Bays	8 Hot-swap 3.5" SAS/ SATA3 bays
RAID	SAS RAID Controller with RAID 0,1,10,5,6, levels supported with 2GB Cache
NIC	2 x Gigabit(10/100/1000Mbps) Ethernet ports
Exp. Slots	4x PCI-E 3.0 x16 , 2x PCI-E 3.0 x8 slots
Ports	1 VGA,2 USB,2 x LAN ports
Chassis	2U Rack Mountable with rail kit
Management	Thru IPMI 2.0 + KVM with Dedicated LAN
P. Supply	740W or higher Redundant Power Supplies, 80 Plus Certified
Warranty	5 Year Comprehensive warrant

UPS

Technical Specification for 20KVA Online UPS with 120 min Backup (3P In -1P Out)	Compliance Y/N
<p>Supply of 20KVA True Online , DSP Controlled online UPS with 3 phase AC input and 1 phase AC output with minimum 120 minutes Battery backup with 12V SMF batteries Bank with Rack (min. VAH required =57600 VAH) ,The UPS should be with IGBT Based Rectifier and Inverter and with LCD/LED display for monitoring of its status along with same OEM Make inbuilt Galvanic Isolation Transformer at input side .</p> <p>UPS should have following Features:</p> <p>UPS power factor : Input PF should be 0.99 AND output PF not less than 0.9 , Efficiency: overall efficiency (up to 94% without Isolation Tx), Distortion Level :THDi <5% & THDv <= 2%(for Liner load) & 5% (for Non Liner load),Input Voltage Range: 190-470V AC, overload : 110% for 5 minutes , 130% for 1 minutes and 150% for 10 seconds. Noise level <55dB,operating temp 0-45 degree C, Back feed protection required in UPS, Communication interface :RS232/USB port and optional SNMP compatibility for remote Monitoring , Audible Alarm : Mains Failure/Low battery /UPS Warning /Overload/Fault & Bypass Mode , CERTIFICATIONS : ISO 9001 & 14001 certification , Compatibility with DG Genset , Parallel operation up to 4 same units, Built in Automatic & Maintenance Bypass Switch ,Warranty : 2 Years on UPS as well as on Batteries, Battery Make : Exide /Amaron-Quanta/Panasonic Make Only, Preferred/Approved Brand : APC-Schneider /Emerson -Vertiv /Legrand-Numeric, Eaton.OEM should have at least 2 own/ASP Based service centers /network in J&K , need to furnish service centers address along with at least three engineers contact details and OEM should have experience of more than 10 years in Govt. business.</p>	

Data Center Accessories

S.No	Equipment	Compliance Y/N
1	Fire Fighting system for Server room in Center of IT	
2	Rodent Control system for Server Room in center of IT	
3	Water Leakage Detection system for Rack Area in center of IT	
4	Bio-Metric access & surveillance system for Server room in Center of IT	

Bill of Quantities

Item	Qty
Spine Switch (Core Switch)	2
Distribution Leaf Switch	10
PoE 48 Port Access Switch	26
PoE 24 Port Access Switch	10
Network Controller/Orchestrator/Monitoring Platform	1 Set
1 Gbps SFP LR for existing switches or existing	150
Server	2
Wifi AP Type-I	150
WiFi AP Type-II	10
OLT	2
24 Port loaded Patch Panel 1U Height	45 Nos.
Cat 6 4 Pair Cable	60Km
Cat 6 4 Pair Patch Cord 1m	500 Nos.
Cat 6 4 Pair Patch Cord 2m	700 Nos.
Cat 6 4 Pair Patch Cord 3m	200 Nos.

Cat 6 I/O with back box and face plate	1200 Nos.
OFC 24 C Single Mode	OFC 24 C will be laid From Center of IT to All Distribution Switches. The bidder is expected to do survey as per route decided by University and quote The bidder can request for route map copy from Computer Center. Total 15 km
OFC 12 C Single Mode	OFC 12 C will be laid From Distribution Switch rack to access Switches Rack. Total 15` km
OFC 4 C Single Mode	OFC 4 C will be laid From Access Switch rack to access Switches Rack. The bidder is expected to do survey as per route decided by University and quote. The bidder can request for route map copy from Computer Center. Total 50 km
Fully loaded Rack Mount Fiber Panel for Fibre termination with LC adapter plates	60 Nos.
LC-LC OFC Patch Cords Single Mode 3 M	500 Nos
LC-LC OFC Patch Cords Multi Mode 3 M	100 Nos
Fully Loaded Fibre Splitter Box (1X16)	4 Nos
UPS	1 Set
Accessories (Water Leakage Detection, Fire Fighting, Rodent Control, cables etc.)	1 Set
Bio-Metric Access Control	1 Set
Rack 15 U with accessories	30 Nos.
Rack 42 U with accessories	4 Nos.
Fibre Termination Enclosure(Supporting Minimum 2 6C OFC)	125 Nos.
Any Accessories/Component/Service required to complete the project	1 Set
Conduiting Material (PVC Pipe/GI Pipe/ PVC Caping Casing for CAT 6 Cable)	10KM
24X7 Management & Operation of N/W	1 Set

PRICE BID

OFFERED NET MARGIN (NET OF TAX) TO ITI →

Sr. No	Particulars	Total Cost (In Rs.) (Including ITI's Value Addition)
1	Tender for the Supply, Installation and Commissioning of Network Infrastructure at University	
Total Price		

Sl. No.	Item Description	Item Code / Make	Qty	Unit	BASIC RATE In	Excise Duty	GST Amount	Freight Charges (Any Other Taxes	Any Other Duties /Levies	TOTAL AMOUNT	TOTAL AMOUNT
					Figures To be entered by the Bidder in	Amount in INR	in INR	Unloading & Stacking) in	in	in	Without Taxes	With Taxes
					Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	Rs. P	Rs. P
1	2	3	4	5	7	8	9	10	11	12	13	14
1	Purchase of Networking components , active and passive and their installation											
1.01	Spine Switch (core switch)	item1	2.00	Nos							0.00	0.00
1.02	Distribution Leaf swtch	item2	10.00	Nos							0.00	0.00
1.03	PoE 48 port Access Switch	item3	26.00	Nos							0.00	0.00
1.04	PoE 24 port Access Switch	item4	10.00	Nos							0.00	0.00
1.05	Network controller/ Orchestrator/ Monitoring platform	item5	1.00	set							0.00	0.00
1.06	1 Gpbs SFP for existing swiches	item6	150.00	Nos							0.00	0.00

1.3	Any Accessories/ Component/ Service required to complete the project	item30	1.00	Set							0.00	0.00
1.31	Conduiting Material(PVC Pipe/GI Pipe/PVC Caping Casing for CAT 6 Cable)	item31	10.00	K.M							0.00	0.00
1.32	24X7 Management & Operation of N/W	item32	1.00	Set							0.00	0.00
Total in Words												
Total in Figure											0.00	0.00

Signature of authorized person of the bidder:-----

Place:

Date:.....

Full Name in Block Letter:

Seal of Company

(Bid Covering Letter / Annexure-A)

To
ITI Limited, MSP-
Delhi
Rohit House, 3
Tolstoy Marg New
Delhi- 110001

Subject: Bid Covering Letter against Expression of Interest (EoI) Tender for the Supply, Installation and Commissioning of Network Infrastructure at University

Ref: Tender no. dated

Dear Sir,

Having examined the EoI/RFP/Tender document, we hereby submit our bid for the subject requirement which has emerged from some Government body to implement the above captioned project.

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to ITI Limited is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the Buyer in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the short-listing process, we are liable to be dismissed from the selection process or termination of the agreement during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the EoI/RFP/Tender document including annexures and corrigendum if any and also agree to abide by this tender response for a period of 6 months from the date fixed for bid opening.

We hereby declare that in case the agreement is awarded to us, we shall submit the Performance Guarantee in the form of bank guarantee in the format to be provided by ITI Limited.

We agree that ITI Limited is not bound to accept any tender response that they may receive. We also agree that ITI Limited reserves the right in absolute sense to reject all or any of the services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

We understand that it will be the responsibility of our organization to keep ITI Limited informed of any changes in respect of authorized person and we fully understand that ITI Limited shall not be responsible for non-receipt or non-delivery of any communication and/or any missing communication in the event reasonable prior notice of any change in the authorized person of the company is not provided to ITI Limited.

Dated this Day of **2021**

Authorized Signatory

Name:

Designation:

(Company Seal)

Note: To be submitted in Company Letterhead

Bidder's Profile

1.	Name and address of the company			
2.	Contact Details of the Bidder (Contact person name with Designation, Telephone Number, FAX, E- mail and Web site)			
3.	Area of Business			
4.	Annual Turnover in last 3 financial years (Rs in Crore)	2017-18	2018-19	2019-20
5.	IT Turnover in last 3 financial years (Rs in Crore)	2017-18	2018-19	2019-20
6.	Profit / Loss in last 3 financial years (Rs in Crore)	2017-18	2018-19	2019-20
7.	Net-worth in last 3 financial years (Rs in Crore)	2017-18	2018-19	2019-20
8.	Date of Incorporation			
9.	GST Registration number			
10.	PAN Number			
11.	CIN Number, if applicable			
12.	Number of technical manpower in company's rolls			

Dated this Day of **2021**

Authorized Signatory

Name:

Designation:

(Company Seal)

Note: To be submitted in Company Letterhead

To
ITI Limited, MSP-
Delhi
Rohit House, 3
Tolstoy Marg New
Delhi- 110001

Subject: Undertaking towards Non-Black Listing of our firm by any Govt. Body

Dear Sir,

We hereby declare that we have not been BLACK LISTED by any Govt. department/ PSU (State or Central)/ Autonomous Institution against our performance obligation in India and there has been no litigation with any government department on account of similar services for the last 5 years.

This declaration is being submitted as per the requirement of your EoI/RFP/Tender.

Dated this Day of **2021**

Authorized Signatory

Name:

Designation:

(Company Seal)

Note: To be submitted in+ Company Letterhead

(Declarations / Annexure-D)

To
ITI Limited, MSP-
Delhi
Rohit House, 3
Tolstoy Marg New
Delhi- 110001

Subject: Bid Covering Letter against Expression of Interest (EoI) Tender for the Supply, Installation and Commissioning of Network Infrastructure at University

Tender no. dated

Dear Sir,

We hereby declare / undertake the following.

We hereby declare that we will work with ITI as per EOI/RFP/Tender terms and conditions of ITI as well as end customer including warranty & post-warranty services and implementation of the project in the event of ITI winning the contract on back-to-back basis.

We hereby declare that we will submit the Tender Fee & EMD (while submitting the bid to the end customer in the form of Bank Guarantee / Demand Draft / Online Payment from any Nationalized / Scheduled Bank) & Performance Bank Guarantee to end customer or ITI (as decided by ITI) as per EoI/RFP/Tender terms & conditions. We also undertake that we will provide EMD & PBG to ITI as per the end-customer's EoI/RFP/Tender terms even if ITI is exempted to submit the same to end-customer because of its PSU status.

We hereby declare that we have „No Objection/ No Claim/ No Compensation“ from ITI Limited if this EoI/RFP/Tender is cancelled at any stage of evaluation process by ITI or the main EoI/RFP/Tender is cancelled by the end customer.

We hereby undertake that we will be equipped with the required manpower with qualifications, certifications and experience as required in the end customer's EoI/RFP/Tender.

We hereby undertake that we will be able to give the proposed solution as required in the end customer's EoI/RFP/Tender.

We hereby undertake that we will arrange required certificate & support (warranty & post-warranty/maintenance) in the name of ITI Limited from the OEM as per end customer's requirement.

We hereby undertake that we will obtain relevant statutory licenses for operational activities.

We hereby undertake that we will sign Consortium Agreement /Teaming Agreement / Integrity Pact with ITI for addressing the end customer's EoI/RFP/Tender if required.

We indemnify ITI Limited from any claims / penalties / statutory charges / liquidated damages / legal expenses if any etc. as charged by the end customer.

We hereby undertake to make arrangement for signing of agreement between OEM and ITI as per end customer's EoI/RFP/Tender requirements.

We hereby undertake that the OEMs who meet the eligibility and other conditions as per end customer's EoI/RFP/Tender requirement will be finalized by us and produce the required eligibility documents and other related documents of the OEM for final bid submission.

We hereby agree to take the responsibilities covered in the agreement (on back-to-back basis) to be signed between ITI & OEM (if required) as per end customer's EoI/RFP/Tender terms & conditions.

We hereby declare to supply equipment/components which are brand new, first hand and contain no previously used, recycled or refurbished components.

We hereby declare not to partner with any other organization for addressing this EoI/RFP/Tender.

We hereby declare to accept payment terms on back-to-back basis. Penalties, if any, will be borne by us.

We hereby declare to provide Bank Guarantee (110% of value for the period till the advance is settled) for getting the advance payment if any on back-to-back basis.

We hereby agree that ITI may take any punitive action as deemed fit, including forfeiture of EMD / Security submitted by us, if it is found that any of the documents / information provided by us (to meet the tender requirement including eligibility) is wrong/ forged/ misleading at any stage of tender processing / evaluation. The decision of ITI regarding forfeiture of the EMD shall be final and shall not be called upon question under any circumstances

Dated this Day of **2021**

Authorized Signatory

Name:

Designation:

(Company Seal)

Note: To be submitted in Company Letterhead

Compliance Statement of Eligibility Criteria

Ref: Tender no. dated

Sl. No.	Clause No.	Clause	Compliance (Complied/Not Complied)	Remarks with Documentary Reference

Dated this Day of **2021**

Authorized Signatory

Name:
Designation:
(Company Seal)

INTEGRITY PACT

PURCHASE ORDER No.

THIS Integrity Pact is made on.....day of..... 21 .

BETWEEN:

ITI Limited having its Registered & Corporate Office at ITI Bhavan, Dooravaninagar, Bangalore – 560 016 and established under the Ministry of Communications, Government of India (hereinafter called the Principal), which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman & Managing Director, Directors, Officers or any of them specified by the Chairman & Managing Director in this behalf and shall also include its successors and assigns) ON THE ONEPART

AND:

..... represented byChief Executive Officer (hereinafter called the Contractor(s), which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the contractor ON THE SECOND PART.

Preamble

WHEREAS the Principal intends to award, under laid down organizational procedures, contract for of ITI Limited. The Principal, values full compliance with all relevant laws of the land, regulations, economic use of resources and of fairness/ transparency in its relations with its Contractor(s).

In order to achieve these goals, the Principal has appointed an Independent External Monitor (IEM), who will **monitor** the tender process and the execution of the contract for compliance with the principles as mentioned herein this agreement.

WHEREAS, to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Pact the terms and conditions of which shall also be read as integral part and parcel of the Tender Documents and contract between the parties.

NOW THEREFORE, IN CONSIDERATION OF MUTUAL COVENANTS STIPULATED IN THIS PACT THE PARTIES HEREBY AGREE AS FOLLOWS AND THIS PACT WITNESSETH ASUNDER:

SECTION 1 – COMMITMENTS OF THE PRINCIPAL

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- a No employee of the Principal, personally or through family members, will in connection with the tender for or the execution of the contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the personal is not legally entitled to.
 - b The Principal will, during the tender process treat all bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all bidder(s) the same information and will not provide to any bidder(s) confidential/additional information through which the bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employee, which is a criminal offence under IPC/PC Actor if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action as per its internal laid down Rules/Regulations.

SECTION 2 – COMMITMENTS OF THE BIDDER/CONTRACTOR

- 2.1 The Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself observe the following principles during the participation in the tender process and during the execution of the contract.
- a The contractor(s) will not, directly or through any other person or firm offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b The contractor(s) will not enter with other contractors into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non- submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c The contractor(s) will not commit any offence under IPC/PC Act, further the contractor(s) will not use improperly, for purposes of competition of personal

gain, or pass onto others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- d The Contractor(s) of foreign origin shall disclose the name and address of the agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
- e The Contractor(s) will, when presenting the bid, disclose any and all payments made, are committed to or intend to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- f The Contractor(s) will not bring any outside influence and Govt bodies directly or indirectly on the bidding process in furtherance to his bid.
- g The Contractor(s) will not instigate third persons to commit offences outlined above or to be an accessory to such offences.

SECTION 3 – DISQUALIFICATION FROM TENDER PROCESS & EXCLUSION FROM FUTURE CONTRACTS

- 3.1 If the Contractor(s), during tender process or before the award of the contract or during execution has committed a transgression in violation of Section 2, above or in any other form such as to put his reliability or credibility in question the Principal is entitled to disqualify Contractor(s) from the tender process.
- 3.2 If the Contractor(s), has committed a transgression through a violation of Section 2 of the above, such as to put his reliability or credibility into question, the Principal shall be entitled exclude including blacklisting for future contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Principal taking into consideration the full facts and circumstances of each case, particularly taking into account the number of transgression, the position of the transgressor within the company hierarchy of the Contractor(s) and the amount of the damage. The exclusion will be imposed for a period of minimum one year.
- 3.3 The Contractor(s) with its free consent and without any influence agrees and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground including the lack of any hearing before the decision to resort to such exclusion is taken. The undertaking is given freely and after obtaining independent legal advice.

- 3.4 A transgression is considered to have occurred if the Principal after due consideration of the available evidence concludes that on the basis of facts available there are no material doubts.
- 3.5 The decision of the Principal to the effect that breach of the provisions of this Integrity Pact has been committed by the Bidder(s)/ Contractor(s) shall be final and binding on the Bidder(s)/ Contractor(s), however the Bidder(s)/ Contractor(s) can approach IEM(s) appointed for the purpose of this Pact.
- 3.6 On occurrence of any sanctions/ disqualifications etc arising out from violation of integrity pact Bidder(s)/ Contractor(s) shall not entitled for any compensation on this account.
- 3.7 subject to full satisfaction of the Principal, the exclusion of the Contractor(s) could be revoked by the Principal if the Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption preventative system in his organization.

SECTION 4 – PREVIOUS TRANSGRESSION

- 4.1 The Contractor(s) declares that no previous transgression occurred in the last 3 years immediately before signing of this Integrity Pact with any other company in any country conforming to the anti-corruption/ transparency International (TI) approach or with any other Public Sector Enterprises/ Undertaking in India of any Government Department in India that could justify his exclusion from the tender process.
- 4.2 If the Contractor(s) makes incorrect statement on this subject, he can be disqualified from the tender process or action for his exclusion can be taken as mentioned under Section-3 of the above for transgressions of Section-2 of the above and shall be liable for compensation for damages as per Section- 5 of this Pact.

SECTION 5 – COMPENSATION FOR DAMAGE

- 5.1 If the Principal has disqualified the Bidder(s)/Contractor(s) from the tender process prior to the award according to Section 3 the Principal is entitled to forfeit the Earnest Money Deposit/Bid Security/ or demand and recover the damages equitant to Earnest Money Deposit/Bid Security apart from any other legal that may have accrued to the Principal.
- 5.2 In addition to 5.1 above the Principal shall be entitled to take recourse to the relevant provision of the contract related to termination of Contract due to Contractor default. In such case, the Principal shall be entitled to forfeit the Performance Bank Guarantee of the Contractor or demand and recover liquidate and all damages as per the provisions of the contract agreement against termination.

SECTION 6 – EQUAL TREATMENT OF ALL BIDDERS/CONTRACTORS

- 6.1 The Principal will enter into Integrity Pact on all identical terms with all bidders and contractors for identical cases.
- 6.2 The Bidder(s)/Contractor(s) undertakes to get this Pact signed by its sub- contractor(s)/sub-vendor(s)/associate(s), if any, and to submit the same to the Principal along with the tender document/contract before signing the contract. The Bidder(s)/Contractor(s) shall be responsible for any violation(s) of the provisions laid down in the Integrity Pact Agreement by any of its sub-contractors/sub- vendors/associates.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this Integrity Pact or violate its provisions.

SECTION 7 – CRIMINAL CHARGES AGAINST VIOLATING BIDDER(S)/ CONTRACTOR(S)

- 7.1 If the Principal receives any information of conduct of a Contractor(s) or sub- contractor/sub-vendor/associates of the Contractor(s) which constitutes corruption or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer of the Principal for appropriate action.

SECTION 8 – INDEPENDENT EXTERNAL MONITOR(S)

- 8.1 The Principal appoints competent and credible Independent External Monitor(s) for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- 8.2 The Monitor is not subject to any instructions by the representatives of the parties and performs his functions neutrally and independently. He will report to the Chairman and Managing Director of the Principal.
- 8.3 The Contractor(s) accepts that the Monitor has the right to access without restriction to all product documentation of the Principal including that provided by the Contractor(s). The Bidder(s)/Contractor(s) will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The Monitor is under contractual obligation to treat the information and documents Contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the project provided such meeting could have an impact on the contractual relations between the Principal and the Contractor(s). As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in specific manner, refrain from action or tolerate action.

- 8.5 The Monitor will submit a written report to the Chairman & Managing Director of the Principal within a reasonable time from the date of reference or intimation to him by the principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.6 If the Monitor has reported to the Chairman & Managing Director of the Principal a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman & Managing Director of the Principal has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- 8.7 The word „**Monitor**“ would include both singular and plural.
- Any changes to the same as required / desired by statutory authorities is applicable.

SECTION 9 – FACILITATION OF INVESTIGATION

- 9.1 In case of any allegation of violation of any provisions of this Pact or payment of commission, the Principal or its agencies shall be entitled to examine all the documents including the Books of Accounts of the Bidder(s)/Contractor(s) and the Bidder(s)/Contractor(s) shall provide necessary information and documents in English and shall extend all help to the Principal for the purpose of verification of the documents.

SECTION 10 – LAW AND JURISDICTION

- 10.1 The Pact is subject to the Law as applicable in Indian Territory. The place of performance and jurisdiction shall be the seat of the Principal.
- 10.2 The actions stipulated in this Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

SECTION 11 – PACT DURATION

- 11.1 This Pact begins when both the parties have legally signed it. It expires after 12 months on completion of the warranty/guarantee period of the project / work awarded, to the fullest satisfaction of the Principal.
- 11.2 If the Contractor(s) is unsuccessful, the Pact will automatically become invalid after three months on evidence of failure on the part of the Contractor(s).
- 11.3 If any claim is lodged/made during the validity of the Pact, the same shall be binding and continue to be valid despite the lapse of the Pact unless it is discharged/determined by the Chairman and Managing Director of the Principal.

SECTION 12 – OTHER PROVISIONS

- 12.1 This pact is subject to Indian Law, place of performance and jurisdiction is the Registered & Corporate Office of the Principal at Bengaluru.
- 12.2 Changes and supplements as well as termination notices need to be made in writing by both the parties. Side agreements have not been made.
- 12.3 If the Contractor(s) or a partnership, the pact must be signed by all consortium members and partners.
- 12.4 Should one or several provisions of this pact turn out to be invalid, the remainder of this pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 12.5 Any disputes/ difference arising between the parties with regard to term of this Pact, any action taken by the Principal in accordance with this Pact or interpretation thereof shall not be subject to any Arbitration.
- 12.5 The action stipulates in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

In witness whereof the parties have signed and executed this Pact at the place and date first done mentioned in the presence of the witnesses:

For PRINCIPAL

For CONTRACTOR(S)

.....
(Name & Designation)

.....
(Name & Designation)

Witness

Witness

1)1).....

2) 2).....