



REQUEST FOR PROPOSAL

**SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING (SITC) OF ICT
INFRASTRUCTURE AT DC, NEAR DR AND
FAR DR HOSTED AT SERVICE PROVIDER
DATA CENTER AND MANAGED TELECOM
AT BANK BRANCHES/OFFICES WITH
OPERATION & MAINTENANCE**

**IT DEPARTMENT
HEAD OFFICE
NAINITAL**

The Nainital Bank Limited
08th July, 2020

RFP Reference No- NTB/IT/INFRA/2020/07/004

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1. Section I – Invitation to Bid

RFP No. NTB/IT/INFRA/2020/07/004

The Nainital Bank Ltd.
Head Office,
Seven Oaks Building,
Mallital, Nainital, Uttarakhand - 263001

Dated: 08.07.2020

The Nainital Bank Ltd. invites bids (Technical & Financial) from eligible bidders which are valid for a period of 180 days from the last date of submission of bid date for "supply, installation, testing and commissioning (SITC) of ICT infrastructure at DC, near DR and far DR hosted at service provider data center and managed telecom at all The Nainital Bank Ltd. branches/offices (existing & future) with operation & maintenance".

Scope of Work	Supply, installation, testing and commissioning (SITC) of ICT infrastructure at DC, near DR and far DR hosted at service provider data center and managed telecom at all The Nainital Bank Ltd. branches/offices (existing & future) with operation & maintenance.	
Application Money	Rs. 25,000/- (Rupees Twenty Five Thousand Only)	Application money has to be deposited as DD/PO* at the time of submission of Bid.
EMD (Earnest Money Deposit) to be submitted	Rs. 10,00,000/- (Rupees Ten Lakhs Only)	Earnest Money Deposit (EMD) submitted in the form of DD/PO* or Bank Guarantee which should be valid for a period of 6 months from last date for bid submission date. EMD to be deposited along with the bid.
Last date and time of submission of Bids		28/07/2020 (1600 Hrs)
Date and time of opening of Eligibility cum Technical Bids (envelope 1 and envelope 2)		Date and time of opening of envelope 1 & 2 will be shared later on to the bidders (through the authorized e-mail ID shared by the bidders.)

Interested parties may view and download the RFP Document containing the detailed terms & conditions, from the website <https://www.nainitalbank.co.in/english/tender.aspx>

***DD/PO and Bank Guarantee should be made in favour of The Nainital Bank Ltd. and DD/PO be made Payable at Delhi.**

RFP Coordinator – Sunil Lohani, AVP-IT
Contact No – 011-23583603, 9870398868
e-mail – infra@nainitalbank.co.in

1.1. Document Control Sheet

Tender Reference No.	NTB/IT/INFRA/2020/07/004
Name of Organization	THE NAINITAL BANK LIMITED
Tender Type (Open/Limited/EOI/Auction/Single)	OPEN
Tender Category (Services/Goods/works)	Services/ Goods
Type/Form of Contract (Work/Supply/Auction/Service/Buy/ Empanelment/Sell)	Supply /Service/ Buy
Technical Evaluation (Yes/No)	Yes
Is Multi Currency Allowed	No (Only INR)
Payment Mode (Online/Offline)	Offline
RFP Issuance Date	08/07/2020
RFP Coordinator	Sunil Lohani, AVP-IT Contact No - 011-23583603, 9870398868 e-mail - infra@nainitalbank.co.in
Last date of receiving written request for clarifications before the pre-bid meeting	16:00 hrs on 13/07/2020 -mail to infra@nainitalbank.co.in
Pre-bid meeting	<ul style="list-style-type: none"> Due to Covid-19 crisis, pre bid meeting will be held through the online mode on 17/07/2020 between 3:00PM and 5:00PM. Bidder to submit a maximum of -2- authorized officials/persons names, contact numbers, designations and e-mail IDs on infra@nainitalbank.co.in by 13/07/2020 along with clarification sought (if any) in a prescribed format mentioned under point 3.8. Invitation link of the meeting will be sent by the Bank to email IDs (max 2) of authorized officials/persons of the bidder to join the Online Pre-bid Meeting as per the schedule mentioned above. Bidder representatives will have to click the Bank provided link (provided in the e-mail) to join the On-line Pre-bid meeting.
Last date of submission of RFP response (Closing date) And address for submission of Bid	1600 Hrs. on 28/07/2020 at The Nainital Bank Ltd., 33, Second Floor, Punchkuian Road, Above Lahore Furniture Mart, New Delhi- 110001
Mode of Submission of Bid	The bidder shall deposit the Bid envelope in person in the tender box kept for this purpose at the above address on or before 16:00 hrs, on bid submission date mentioned herein this RFP document.
Date and time of opening of Eligibility cum Technical Bids (envelope 1 and envelope 2)	Date and time of opening of envelope 1 & 2 will be shared later on to the bidders (through the authorized e-mail ID shared by the

	bidders.)
Date of Technical Presentation	Date of technical presentation will be shared later on to the eligible bidders through authorized e-mail ID shared by the bidders.
Contract Type (Empanelment/Tender)	Tender
Multiple Technical Annexure(s)	Yes
Quoting for all Technical Annexures is compulsory	Yes
Application Money	Rs.25,000/- (Rupees Twenty Five Thousand Only)*
Bid Security (Earnest Money Deposit)	Rs.10,00,000/- (Rupees Ten Lakh Only)*
Bid Validity days	180 days from the last date for submission of bid
Location for Submission of Bid	The Nainital Bank Ltd., 33, Second Floor, Punchkuian Road, Above Lahore Furniture Mart, New Delhi- 110001
Validity of Contract	Five years from the date of signing of Agreement, extendable for further Two years
Address for Communication	Sunil Kumar Lohani Associate Vice President -IT & RFP Coordinator, The Nainital Bank Ltd., 33, Second Floor, Punchkuian Road, Above Lahore Furniture Mart, New Delhi- 110001

* MSEs (Micro and Small Enterprise (MSE) are exempted from paying the application money and Bid security amount for which the concerned enterprise needs to provide necessary documentary evidence. For MSEs Government of India provisions shall be considered while evaluating the tender. (Please refer Pt. 3.6 of this RFP document for detailing the MSE clause)

2. DISCLAIMER

Subject to any law to the contrary and to the maximum extent permitted by law, the Bank and its Directors, Officers, employees, contractors, representatives, agents and advisors disclaim all liability from any loss, claim, expenses (including, without limitation, any legal fees, costs, charges, demands, actions, liabilities, expenses or disbursement incurred therein or incidental thereto) or damage, (whether foreseeable or not) (“losses”) suffered by any person acting on or refraining from acting because of any presumption or information(whether oral or written and whether expressed or implied), including forecasts, statements, estimate or projections contained in this RFP document or conduct ancillary to it whether or not the losses rise in connection with any ignorance, negligence, inattention, casualness, disregard, omission, default, lack of care, immature information, falsification or misrepresentation on the part of the Bank or any of its Directors, officers, employees, contractors, representatives, agents, or advisors.

3. Section II: Instructions for Bid Submission

3.1. Executive summary of the project

The Nainital Bank Limited was established in the year 1922 with the objective to cater banking needs of the people of the region. Bank of Baroda, a premier nationalized bank, is managing the affairs of The Nainital Bank Limited since 1973. The Bank is having 145 branches at present operating in five states i.e. Uttarakhand, Uttar Pradesh, Delhi, Haryana and Rajasthan. Bank's Head Office is at Nainital, Uttarakhand and -3- Regional Offices are functioning at Delhi, Dehradun and Haldwani. The total business of bank was Rs. 11797.46 crore as on 31/03/2020 registering a growth of 7.92% over previous F.Y. The Operating profit of Bank for 31/03/2020 stood at Rs. 112.23 crore. The Bank is running with a vision which states: "To emerge as a customer centric National Bank & become the most preferred bank for its product, services, technology, efficiency & financials." Towards the same vision The Nainital Bank Limited has decided to upgrade the existing Data center and Disaster recovery site to a state of the art level DC/DR infrastructure, so that it can be front runner in the race of IT Transformation.

Scope of RFP in brief is mentioned below:

The Nainital Bank Ltd. is looking for bidder who proposes an end to end solution for Data Center, Near DR and Far DR as per the detailed scope mentioned in document. Solution must comprise of following:

1. Compute and Storage related to Banking Application (Bank will purchase this hardware, OS, Middleware as CAPEX and will be 'colocated' at Bidder's proposed DC Delhi-NCR, near DR (within 25 KM radius from proposed DC) and DR Site in different seismic zone from DC.)
2. Other Network, Security components, Disaster management tools, Backup, etc as per scope at all locations (This will be dedicated Infrastructure and Bank will be billed on OPEX Model)

3. Management and Monitoring tools and Managed services according to the scope defined (In services model)
4. Database installation, performance, testing and Operations Management during the contract period.
5. SDWAN solution.
6. Managed Connectivity and links for all branch/offices and other locations (As per Annexures)
7. Operation, maintenance and management of all infra at all sites including DC, DR, NDR for 5 years extendable further upto -2- yrs.

3.2. Preparation of Bids

Bidder should consider all corrigendum/s, (if any), published on the Bank's website related to the RFP Document before submitting their bids.

Please go through the tender advertisement and the RFP Document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3.3. Submission of Bids

The bidder shall seal the original DD/PO or Bank Guarantee as EMD and Application fees in form of DD/PO in an envelope which be marked as Envelope No. 1 along with other Pre-qualification documents. The Bidder shall mark its company/firm/LLP name and tender reference number on the back of the Bank Demand Draft before sealing the same. The address of The Nainital Bank Ltd., name and address of the bidder and the Tender Reference Number shall be marked on the envelope. The envelope shall also be marked with a Sentence "NOT TO BE OPENED BEFORE the Date and Time of Bid Opening". If the envelope is not marked as specified above, THE NAINITAL BANK LTD. will not assume any responsibility for its misplacement, pre-mature opening etc.

The bidder shall deposit the **envelope in person in the tender box kept for this purpose at The Nainital Bank Ltd., 33,Second Floor, Punchkuian Road, Above Lahore Furniture Mart- 110001 on or before 16:00 hrs**, on bid submission date mentioned herein this RFP document.

A standard BoQ (Bill of Quantities) format has been provided with this RFP Document which is to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their commercial bids in the format provided and no other format is acceptable.

3.4. Assistance to Bidders

Any queries relating to the RFP Document and the terms and conditions contained therein should be addressed to the RFP Coordinator indicated in this RFP.

3.5. Cost to Bid

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 or otherwise. The Bank, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

3.6. Micro and Small Enterprise (MSE)

As per recommendations of GOI, Bank has decided to waive off EMD and tender cost (application money) for Micro and Small Enterprise MSE.

- i. MSEs are exempted from paying the application money and Bid security amount for which the concerned enterprise needs to provide necessary documentary evidence issued by NSIC. For MSEs Government of India provisions shall be considered while evaluating the tender. Bids received without EMD and tender cost (application money) from bidders not having valid NSIC registered documents for exemption will not be considered.
- ii. To qualify for EMD & Tender Fee / Cost (application fee) exemption, firms should necessarily enclose a valid copy of registration certificate which is valid on last date of submission of the tender documents. MSE firms who are in the process of obtaining registration will not be considered for EMD & Tender Fee / Cost exemption (application fee).
- iii. MSE bidder has to submit a self-declaration accepting that if they are awarded the contract and they fail to sign the contract or to submit a Performance Bank Guarantee before the deadline defined by the Bank, they will be suspended for a period of three years from being eligible to submit bids for contracts with the Bank.
- iv. Bids received without EMD for bidders not having valid registration

documents for exemption will not be considered. However, Performance Bank Guarantee has to be submitted by the bidder under any circumstance.

3.7. Contents of the RFP Document

The RFP Document is divided into following sections:

1. Section I - Invitation for Bids
2. Section II - Instructions for Bid submission
3. Section III - General Conditions of the Contract and Service Level Agreement
4. Section IV - Bid Submission Format
5. Section V - Scope of Work
 - a. Annexure A – Hardware/Software Technical Specifications
 - b. Annexure B – Cyber Security Technical and Functional Requirements
 - c. Annexure C – Telecom technical and functional requirements
 - d. Annexure D - Telecom Location
6. Section VI - Financial bid

The Bidder is expected to examine all instructions, forms, terms & conditions, and scope of work in the RFP Document and furnish all information as stipulated therein.

3.8. Clarification on RFP Document

A prospective Bidder requiring any clarification on the RFP Document may submit his queries, through email, at the Bank's e-mail address i.e. infra@nainitalbank.co.in and as per schedule indicated under **point no. 1.1 of Section I – Invitation for Bids**. The queries must be submitted in the following format (in Excel file,* .xls) shall only be considered for clarification:

Sr. No	Page No/ Section No.	Clause No.	Reference/ Subject	Clarification Sought
..

The Bank will only respond to queries submitted in the above excel format.

All queries on the RFP Document should be received on or before as prescribed by the Bank in Section I of this RFP Document. Bank's response (including the query but without identifying the source of inquiry) would be provided to the bidders present during the Pre-bid meeting and corrigendum (if any) would be uploaded on bank's website

<https://www.nainitalbank.co.in/english/tender.aspx>. Bidders are responsible for duly checking the above website for any corrigendum and Bank's response.

Note: Inputs/suggestions/queries submitted by bidders as part of the pre-bid queries and otherwise will be given due consideration by the Bank, however THE NAINITAL BANK LTD. is not mandated to accept any submission made by the bidder and nor the bidder will be given any written response to their submissions. If an input is considered valid by the bank the same will be accepted and incorporated as part of the corrigendum and shall be published on Bank's website.

3.9. Amendment of RFP Document

At any time prior to the last date for receipt of bids, the Bank, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by an amendment.

Any Amendments will be notified in writing on bank's website www.nainitalbank.co.in under Tender Option and will be binding on all bidders.

In order to provide prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the Bank may, at its discretion, extend the last date for the receipt of Bids. Any or all corrigendum/amendments notified by the Bank shall be treated integral part of this RFP

3.10. Language of Bids

The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and the Bank, shall be written in **English language**.

3.11. Documents Comprising the Bids

The bid prepared by the Bidder shall comprise of the following components:

1. **Envelope 1 -Pre Qualification envelope**

The Pre-qualification envelope, besides the other requirements of the Tender, shall comprise of the following: (The envelope should be marked as "Pre-Qualification")

- Bid Submission Cover Letter
- Bidder's Profile
- Application Money in form of DD in original
- Original EMD (as mentioned in this RFP) the original Bank Guarantee for EMD

must be submitted in a sealed envelope mentioning “EMD-NTB/IT/INFRA/2020/07/004” by Bid submission end date as mentioned in Section 1 – Invitation of Bids.

- Compliance List of Documents
- Response to Eligibility criteria: Eligibility Criteria which should contain all the supporting documents asked for eligibility criteria.
- Power of Attorney executed by the Bidder in favour of the Principal Officer or the duly Authorized Representative, certifying him as an authorized signatory for the purpose of this Tender.

2. Envelope 2 - Technical Bid envelope

The Technical Bid, besides the other requirements of the Tender, shall comprise of the following:(The envelope should be marked as “Technical bid”)

- Technical Bid Letter
- Methodology and Project Plan
- Bidder Solution
- Hardware Technical Specifications compliances
- Cyber Security Technical Requirements compliances
- Telecom Technical requirement compliance
- Manufacture authorization Format (all applicable Original Equipment Manufacturer OEM)
- Unpriced Bill of material
- Data sheets of OEM.
- Supporting documents as required in technical score sheet
- All documents including Power point presentation, solution document, technical compliance, bill of material in a storage media. Technical compliance and bill of material has to be submitted in excel format.

All documents should be signed and stamped by the authorized person.

3. Envelope 3 - Commercial Bid envelope

The Commercial Bid, besides the other requirements of the Tender, shall comprise of the following:(The envelope should be marked as “Commercial bid”)

- Commercial Bid
- Commercial Bid Letter
- Breakdown of Cost Components

- A standard format for submission of commercial bids has been provided with the tender to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their commercial bids in the format provided and submission in any other format will lead to rejection of the bid

3.12. Bid Prices

The Bidder shall indicate in the proforma prescribed, the unit rates and total Bid Prices of the equipment / services, it proposes to provide under the Contract. Prices should be shown separately for each item as detailed in RFP Documents.

In the absence of above information as requested, a bid may be considered incomplete and be summarily rejected.

The Bidder shall prepare the bid based on details provided in the RFP Documents. **It must be clearly understood that the Scope of Work is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by the Bank. The Bidder shall carry out all the tasks in accordance with the requirement of the RFP Documents and it shall be the responsibility of the Bidder to fully meet all the requirements of the RFP Documents.**

3.13. Firm Prices

Prices quoted in the bid must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. However, the Bank reserves the right to negotiate the prices quoted in the bid to effect downward modification. The Bid Prices shall be indicated in Indian Rupees (INR) only.

The Commercial bid should clearly indicate the price to be charged and Taxes will be applicable as per actuals. It is mandatory that such charges wherever applicable/ payable should be indicated separately in **Section IV – Bid Submission Format**. However, should there be a change in the applicable taxes, the same may apply.

3.14. Bidder Qualification

The "Bidder" as used in the RFP Documents shall mean the one who has signed the Tender Form. The Bidder may be either the **Principal Officer** or his duly **Authorized Representative**, in either cases he/she shall submit a certificate of authority. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the representative and the principal.

It is further clarified that the individual signing the tender or other documents in connection with the tender must certify whether he/she signs as the Constituted attorney of the firm, or a company.

The authorization shall be indicated by **written power-of-attorney** accompanying the bid.

The power of attorney and any other document consisting of adequate proof of the ability of the signatory to bind the Bidder shall be annexed to the bid.

Any change in the Principal Officer shall be intimated to THE NAINITAL BANK LTD. in advance.

3.15. Earnest Money Deposit (EMD)

The Bidder shall furnish, as part of its bid, an Earnest Money Deposit (EMD) of the amount Rs 10,00,000/- (Rupees Ten Lakh Only).

The EMD is required to protect the Bank against the risk of Bidder's conduct which would warrant the security's forfeiture.

The EMD must be submitted, in form of DD/PO or Bank Guarantee valid for a period of -6- months from the last date of bid submission, of any Scheduled Commercial Bank favouring The Nainital Bank Ltd.

In case of bidders being an MSE under registration of any scheme of Ministry of MSE, they are exempted from the submission of EMD. A valid certificate in this regard issued by the NSIC has to be submitted along with the bid. (Please refer pt. 3.6 MSE clause for details)

Unsuccessful Bidder's EMD will be returned after award of contract to the successful Bidder. **No interest will be paid by the Bank on the EMD.**

The successful Bidder's EMD will be discharged upon the bidder executing the Contract, and furnishing the Bank Guarantee/security deposit. **No interest will be paid by the Bank on the EMD.**

The EMD may be forfeited:

- a. if a Bidder withdraws its bid during the period of bid validity specified in the RFP; or
- b. in the case of a successful Bidder, if the Bidder fails;

- i. to sign the Contract in accordance; or
- ii. to furnish Security Deposit/Bank Guarantee for contract performance

3.16. Security Deposit

- The successful bidder will be required to submit Security deposit in the form of Bank Guarantee, favoring The Nainital Bank Ltd. equal to the 10% of purchase order value.
- Validity: Valid for the 60 months. The BG will be released after 60 months and/or extended period or execution of all pending Purchase Orders, whichever is later.
- In the event of termination, Bank may Invoke the Performance Bank Guarantee/Security Deposits, recover such other direct costs and other amounts towards direct damages from the Agency that may have resulted from such default and pursue such other rights and/or remedies that may be available to the Bank under law.

3.17. Period of Validity of Bids

Validity of bid will be 180 days from the last date of submission of bid. **Any bid of a shorter period may be rejected by the Bank as non- responsive.**

In exceptional circumstances, the Bank may request the Bidder(s) for an extension of the period of validity of bids upto 180 days more. The request and the responses thereto shall be made through e-mail. The validity of EMD may also be extended if required.

3.18. Format and Signing of Bid

The original and all copies of the bid shall be typed or written in indelible ink. **The original and all copies** shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Agreement/Contract. All pages of the bid, except for un-amended printed literature, shall be initialled and stamped by the person or persons signing the bid.

The response to the bid should be submitted along with legible, appropriately indexed, duly filled Information sheets and sufficient documentary evidence as per Checklist. Responses with illegible, incomplete information sheets or insufficient documentary evidence shall be rejected.

The Bidder shall duly sign and seal its bid with the exact name of the firm/company/LLP to whom the contract is to be issued.

3.19. Revelation of Prices

Prices in any form or by any reason before opening the Commercial Bid should not be revealed, failing which the offer shall be liable to be rejected.

3.20. Terms and Conditions of Bidders

Printed terms and conditions of the Bidders will not be considered as forming part of their Bids. The terms and conditions mentioned the RFP will prevail.

3.21. Consortium

Consortium is not allowed.

3.22. Last Date for Receipt of Bids

Bids will be received by the Bank at the address specified under **Section I - Invitation for Bids** no later than the time and date specified in Section I -Invitation for Bids.

The Bank may, at its discretion, extend the last date for the receipt of bids by amending the RFP Document, in which case all rights and obligations of the Bank and Bidders previously subject to the last date will thereafter be subject to the last date as extended.

3.23. Late Bids

Any bid received by the Bank after the last date and time for receipt of bids prescribed by the Bank, pursuant to **Section I - Invitation for Bids**, shall stand rejected.

3.24. Modification and Withdrawal of Bids

No bid may be altered / modified subsequent to the closing time and date for receipt of bids. Unsolicited correspondences from Bidders will not be considered.

No bid may be withdrawn in the interval between the date for receipt of bids and the expiry of the bid validity period specified by the Bidder in the Bid. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its EMD.

3.25. Bidder's Address for Correspondence

The Bidder shall designate the official mailing address, place to which all correspondence shall be sent by the Bank.

3.26. Contacting the Bank

No Bidder shall contact the Bank on any matter relating to its bid, from the time of the bid opening up to the time of award of contract.

Any effort by a Bidder to influence the Bank's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid.

3.27. Opening of Bids by Bank

The Bank will convene a bid opening session as per time schedule where one representative from the Bidder, who has successfully submitted the bid, may participate. Subsequent to this, Bank will further evaluate the Bid of only those agencies whose Application fees, EMD and eligibility criteria is found to be in order.

3.28. Evaluation of Bids

Bank will evaluate the bids. Decision of the Bank would be final and binding upon all the Bidders.

The purpose of this clause is only to provide the Bidders an idea/overview of the evaluation process that the Bank may adopt. However, the Bank reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidders of any such change.

Bidder must possess the requisite experience, strength and capabilities in providing the services necessary to meet the Bank's requirements, as described in the RFP Document. Bidder must possess the technical know-how and the commercial wherewithal that would be required to successfully Supply, Install, Configure, Maintain and Manage the Servers, Storage, Network, Telecom, Cyber Security, etc. as part of the solution and also to provide the maintenance and management support services sought by the Bank, for the entire period of the agreement/contract. The Bidder's bid must be completed in all respect and covering the entire scope of work as stipulated in the RFP Document.

3.29. Preliminary Examination

The Bank will examine the bids to determine whether they are complete, whether the bid format conforms to the Tender requirements, whether any computational errors have been made, whether required EMD have been furnished, whether the documents have

been properly signed, and whether the bids are generally in order.

A bid determined as not substantially responsive will be rejected by the Bank and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

3.30. Clarification

When deemed necessary, during the tendering process, the Bank may seek clarifications or ask the Bidders to make Technical presentations on any aspect from any or all the Bidders. However, that would not entitle the Bidder to change or cause any change in the substance of the tender submitted or price quoted.

THE NAINITAL BANK LTD. reserves the right to seek fresh set of documents or seek clarifications on the already submitted documents.

3.31. Evaluation of Eligibility Criteria

In this part, the bid will be reviewed for determining the compliance of the general conditions of the contract and Eligibility Criteria as mentioned in the Tender. Any deviation for general conditions of the contract and eligibility criteria will lead to rejection of the bid.

Before opening and evaluation of their technical proposals, bidders are expected to meet all the general conditions of the contract and the eligibility criteria as mentioned below. Bidders failing to meet these criteria or not submitting requisite supporting documents / documentary evidence for supporting pre-qualification criteria are liable to be rejected summarily.

The bidder must possess the requisite experience, strength and capabilities in providing the services necessary to meet the requirements, as described in the RFP Document. The bidder must also possess the technical knowhow and the commercial wherewithal that would be required to successfully provide the data center and support services sought by THE NAINITAL BANK LTD. for the entire period of the agreement/contract. The bids must be complete in all respects and should cover the entire scope of work as stipulated in the RFP Document. The invitation to the bids is open to all bidders who qualify the eligibility criteria as follows:

S. No	Eligibility Criteria	Complied (Yes/No)	Supporting Required
A	General		
1	Bidder must be a Government Organization / PSU / PSE / partnership firm under Partnership Act / LLP /private or public limited company in India at least for last 5 years.		Documentary Proof to be attached (Certificate of Incorporation)
2	The bidder should have experience of providing Data Center colocation services including IT Infrastructure (i.e. Servers, SAN storage, Network equipment's etc.) setup in India for last five years as on the date of the RFP issuance.		Documentary proof indicating that bidder has the experience for last five years on providing Data Center colocation services including IT Infrastructure (i.e. Servers, SAN storage, Network equipment's etc.) setup in India.
3	Bidder must not be blacklisted / debarred by any Statutory, Regulatory or Government Authorities or Public Sector Undertakings (PSUs / PSBs) or Private Banks or Financial Institutions since last 3 FY years and till date.		Letter of confirmation (self-certified letter as per the format given in pt. 5.4 signed by authorized official of the bidder)
4	The Bidder to provide information that any of its subsidiary or associate or holding company or companies having common director/s or companies with the same group of promoters/ management or partnership firms / LLPs having common partners has not participated in the bid process.		Letter of confirmation (self-certified letter signed by authorized official of the bidder)
5	The Bidder to provide an undertaking on his letter head that all the Technical & Functional requirement highlighted as part of Scope of Work (mentioned in Section V) are covered in totality in the proposal submitted by the bidder.		Letter of confirmation from bidder
B1	Below clause Applicable for the Original Equipment Manufacturer (OEM) whose systems / products are quoted or if the OEM is bidding directly		

S. No	Eligibility Criteria	Complied (Yes/No)	Supporting Required
1	Must have registered a turnover of INR 500 Crores or above (from Indian Operations only) in each year during the last three completed financial years that is financial years - 2017-18, 2018-19 and 2019-20.		Audited Financial statements for the financial years 2017-18, 2018-19 and 2019-20. Certified letter from the Chartered Accountant. The CA certificate in this regard should be without any riders or qualification.
2	Must be net profit making entity (from Indian operations only) for each year in the last three financial years that is financial years - 2017-18, 2018-19 and 2019-20.		Audited Financial statements for the financial years 2017-18, 2018-19 and 2019-20. Certified letter from the Chartered Accountant. The CA certificate in this regard should be without any riders or qualification
B2	Below clause Applicable for the Bidder if submitting bid as a partner of the OEM (Also the OEM whose products are quoted by the partner to meet the criteria mentioned in B1)		
1	Must have registered a turnover of 200 Crores or above (from Indian Operations only) in each year during the last three completed financial years that is financial years - 2017-18, 2018-19 and 2019-20.		Audited Financial statements for the financial years 2017-18, 2018-19 and 2019-20. Certified letter from the Chartered Accountant. The CA certificate in this regard should be without any riders or qualification.
2	Must be net profit making entity (from Indian operations only) continuously for the last three years that is financial years - 2017-18, 2018-19 and 2019-20.		Audited Financial statements for the financial years 2017-18, 2018-19 and 2019-20. Certified letter from the Chartered Accountant. The CA certificate in

S. No	Eligibility Criteria	Complied (Yes/No)	Supporting Required
			this regard should be without any riders or qualification
3	Must be an authorized partner of OEM whose product are quoted (Servers, SAN storage, Network equipment's etc.) for supply & support for the past three years (from RFP date)		Documentary Proof to be attached
C	Experience & Support Infrastructure		
1	<p>The bidder must have provided Data Centre colocation facility to at least Ten (10) companies at any of their colocation sites in India. (Out of which Two credential should be from Commercial Banks / Financial Institutions/ Government / PSU Organizations in India who have co-hosted their Data Centre)</p> <p>AND</p> <p>Should have a prior experience of set up and operations in colocation include IT Infrastructure (Servers, SAN storage, Network equipments etc.) for at least two DC/DR projects in Commercial Banks / Financial Institutions/ Government / PSU Organizations In India having value more than Rs 2 Crores.</p>		Copy of the Credential Letter or Copy of Purchase order from the client's executive and an Undertaking from the bidder on the bidder's letter head confirming the implementation along with the contact details of client's representative.
2	Bidder / OEM to have adequate stock of spares of all items supplied and should be able to replace the faulty hardware within 4 hours from the time of incident reporting.		Letter of undertaking from the OEM / Bidder.
D	Others		
1	<p>Applicable when OEM is not the bidder:</p> <p>The bidder should have authorization from OEM (MAF) to quote for their products (Servers, SAN storage, Network equipment's etc.)</p>		Separate Letter of confirmation from the OEM needs to be submitted as per pt 5.2 .

S. No	Eligibility Criteria	Complied (Yes/No)	Supporting Required
	And If bidder (partner of OEM) is not able to fulfill its obligation to support the product during the contract period, OEM will have to ensure support as per contract. An undertaking from the OEM to this effect must be submitted.		
	Applicable when OEM is itself the bidder: The OEM to provide undertaking to fulfill its obligation to support the products (Servers, SAN storage, Network equipment's etc.) during the contract period, OEM will have to ensure support as per contract. An undertaking from the OEM to this effect must be submitted.		Separate Letter of confirmation from the OEM needs to be submitted as per pt 5.3 .
2	If OEM is bidding directly they cannot submit another bid with any other bidder.		Letter of confirmation from both bidder and OEM
3	Bidder must have certification for support of OS i.e. Unix/Linux based which are available in the market and are not in end of support.		A copy of all the certifications to be submitted
4	OEM must ensure that the Servers to be supplied will not be End of Sale in next 3 years minimum (from RFP date) and End of Support in next 7 years from End of Sale.		Letter of undertaking from the OEM.
5	The bidder must be the owner of the proposed DC and DR or in case of leased premises (proposed), an unexpired lease period of 10 years should remain as on the due date or Tender submission. No Partnership / Consortium bidding is allowed.		Self-declaration / undertaking to this effect on company's letter head signed by company's authorized signatory
6	The bidder should have a ready to move in, up and running proposed data center, DR and NDR		Undertaking on bidder's letterhead

S. No	Eligibility Criteria	Complied (Yes/No)	Supporting Required
7	The proposed colocation Data Centre/DR should be at least Tier III or above		Publicly available information of the proposed DC along with an undertaking on a SP's letterhead, clearly mentioning that the address of the proposed DC site and that it is complying with tier III Requirements.
8	The bidder must have on its payrolls at least 50 technically qualified professionals (BE/B.Tech/MCA or equivalent) in the ICT domains i.e. Cyber security, networking, system software, system integration, storage etc. who have prior experience in providing the Data Center Infrastructure and maintenance services as on date of release of this RFP.		Certificate from the bidder's HR Department for the number of Technically Qualified Professionals employed by the bidder. Certificate should capture the following details of the employees in a tabular format: 1. Employee Name 2. Qualification 3. Total experience in desired area
9	Data Center Location of Service Provider- The SP should have Data Center in Delhi/NCR and Near DR between 5 to 25 Km from proposed DC and DR at different seismic zone other than Delhi/NCR within India.		Self Declaration certificate, giving location details of the Data Centers in PAN India
10	Bidder should have its own NOC(Network Operations Center) in India to Monitor/Manage the DC IT Infrastructure		Self Declaration certificate, giving location details of the NOC
11	Bidder should have received following certification <ul style="list-style-type: none"> • ISO 9001:2015. • ISO/ IEC 20000:2011 (or later) 		Copies of relevant Certificates

S. No	Eligibility Criteria	Complied (Yes/No)	Supporting Required
	<ul style="list-style-type: none"> • ISO 27001 (or later) or 'BS7799 - 3' • PCI-DSS 		
12	OEM whose product is quoted should have received ISO 9001:2015 & 14001:2015 & 27000 certifications for manufacturing facility from where the equipment's will originate.		Copies of relevant Certificates

3.32. Evaluation of Technical Bids

Only those bidders who qualify all Pre-qualification / Eligibility Criteria requirements will be qualified for technical bid evaluation.

Technical presentation, will be a part of the process for evaluation of the bids.

The Bank reserves the right to reject a Product/Solution/Service if it is of an opinion that the offered product/service does not match the technical requirements /objectives specified in Technical Bid – Bank’s Requirements.

The technical bid will first be reviewed for determining the Compliance of the Technical bids with the Tender terms and conditions, Minimum/Mandatory Technical requirements and the scope of work as defined in this tender.

Any bid found to be non-compliant to the mandatory Technical Requirements, Tender terms and conditions and the scope of work shall be rejected and will not be considered for further evaluation. Bids that are technically compliant would only be taken up for commercial evaluation.

Bidders should submit the Technical Specification compliance sheet as a part of technical bid i.e. Annexure A, B, C and D. All technical specification given in Annexure A, B, C and D are mandatory.

If the bidder is found to be non-compliant to any of the mandatory technical specifications, then the respective bid would be summarily rejected without assigning any score.

Bidder is required to submit all the supporting documents as per the criteria mentioned in the Tender. Bank reserves right to summarily reject any bid which does not contain all the mandatory supporting document or may ask bidder to resubmit documents, the decision of Bank will be final and binding in this regards.

Bids that are technically qualified would only be taken up for commercial evaluation.

Bidders are required to comply with all the Technical Specifications as mentioned in Tender, no deviation will be accepted. Any deviation would be summarily rejected without assigning any score.

Bank reserves the right to disqualify any bidder based on any criteria considered relevant and its decision is binding. Representations, if any from disqualified bidders will not be entertained and will be summarily rejected. THE NAINITAL BANK LTD. will not respond to any query raised by bidders seeking reasons for rejection of the bid.

Technical Bids will be evaluated for the following broad parameters and a score would be given to each bidder by the Bank based on the scoring criteria mentioned below-

TECHNICAL SCORING

S.No.	Description	Marks	Documents required
A.	Bidder's Strength	40	
	Experience in terms of number of projects		
1	<p>Number of completed data center colocation services projects by bidder - implemented / completed project(s) which include Supply, Installation, Configuration, Testing, Commissioning, Operations and Maintenance, (Operation and Maintenance can be in progress) of Compute / Networking Equipment / Cyber Security / Storage / Backup Equipment in the last 5 (Five) years (till last date of bid submission) with Total Contract Value of at least INR Two (2) Crores each.</p> <p>1 marks for each Project (Maximum 5 Projects)</p>	5	Order/Contract Copies with End Customer Certificate/FAT/installation report. TIER III/Rated-3/TIA-942 certificate
2	<p>Bidder must be currently providing TIER-III/Rated-3 Data Centre co-hosting facility to commercial banks/financial institutions/government/PSU organizations at any of their own commercial data centres in India in last 5 years.</p> <p>1 mark for each project (Maximum 5 Projects)</p>	5	Order/Contract Copies with End Customer Certificate/FAT /Installation Report. Tier III/Rated-3 / TIA 942 Certificate
3	<p>Bidder must have experience in executing cyber security orders in last 5 years for its end customers covering following items:</p> <p>a) 1 mark for Next Generation Firewall/IPS/UTM project, where total order value should be minimum Rs. 1 Cr (Maximum 1 Project)</p> <p>b) 1 mark for each Privileged Identity Management and Database Activity Monitoring Project executed (Maximum 2 marks)</p> <p>c) 1 mark for each WAF and HIPS Project executed (Maximum 2 marks)</p>	5	Order/Contract Copies with End Customer Certificate/FAT /Installation Report
4	<p>Bidder must have experience in executing SD-WAN Project of minimum 100 sites in each project:</p> <p>2.5 mark for each SD-WAN Project where minimum 100 sites connectivity executed by bidder (Maximum 2 Projects)</p>	5	Order/Contract Copies with Customer Certificate/FAT /Installation Report
	Bidder's Data Centers and Telecom Network		
5	<p><u>Bidders Experience in terms of its ICT Offerings:</u></p> <p>The bidder should currently be providing -</p> <p>i) Data Centre Colocation/Hosting Services in its Rated 3/TIA 942 Data Centres in its own Data Centre Colocation/Hosting Services facility</p> <p>ii) System Integration (SI) Services</p> <p>iii) Telecom Services (should have ISP/NLD/ILD/Unified License)</p> <p>iv) Managed Services</p> <p>a) Bidder's organization directly offering all the above mentioned 4 services to its end customers: (10 Marks)</p>	10	<p>1) Order/Contract Copies with Customer Certificates for experience of each ICT offering</p> <p>2) Tier III/Rated-3 / TIA 942 Certificate (if Data Centre Hosting Services are offered from own Data Centre)</p> <p>3) ISP/NLD/ILD/ Unified</p>

	<p>b) Bidder's organization directly offering any 3 of the above mentioned services to its end customers (7 Marks)</p> <p>c) Bidder's organization directly offering any 2 of the above mentioned services to its end customers: (5 Marks)</p> <p>d) Bidder's organization directly offering any 1 of the above mentioned services to its end customers: (2 Marks else 0 Mark)</p> <p>Note: Only Bidding entity's credentials will be considered for this criteria. Parent or Subsidiary company's experience will not be considered</p>		License (if Telecom Services are offered).
	Location Feasibility		
6	<p>Bidder's should provide Software Defined (SD) ready network with minimum : (excluding 3G and 4G)</p> <p>= or > 50% Locations feasible with atleast 1 (One) last mile on own Wire Line (Copper/Fiber)/RF/WiMAX - (10 Marks)</p> <p>= or > 40% to < 50% Locations feasible with atleast 1 (One) last mile on own Wire Line (Copper/Fiber)/RF/WiMAX - (7 Marks)</p> <p>= or > 30% to < 40% Locations feasible with atleast 1 (One) last mile on own Wire Line (Copper/Fiber) /RF/WiMAX - (5 Marks)</p> <p>< 30% Locations feasible with atleast 1 (One) last mile on own Wire Line (Copper/Fiber) /RF/WiMAX - (0 Marks)</p>	10	Location-wise Feasibility Report of locations as per Annexure-D. Bidder have to provide the details of last mile/mode of connectivity /service provider.
B.	Project Requirements	20	
	Solution Understanding, Design, Integration and Deployment:		
1	Understanding of Bank's Requirement and Clarity of the same in proposed solution		
2	<p>Bidder has to provide complete solution along with design, approach, Integration, solution architecture for DC, DR, NDR sites including data replication, high-availability, security and scalability of the proposed solution as under:</p> <p>a) Detailed Approach & Methodology for implementation and maintenance Support for ICT infrastructure</p> <p>b) Solution Architecture with detailed solution for all the ICT infrastructure components with relevant diagram(s)</p> <p>c) High Availability within proposed solution</p> <p>d) Scalability within proposed solution</p> <p>e) Cyber Security design, approach and integration</p> <p>f) Specific solution highlights to Bank's requirements</p> <p>g) Proactive Monitoring & Management of the ICT infrastructure for next 5 years</p>	15	The Bidder need to provide IT Architecture landscape and Network architecture along with Technical Solution Document as per RFP Requirement with an undertaking on the letter head that all the technical & functional requirement highlighted as part of Technical Scope are covered in totality in the proposal submitted by the bidder.
3	Coverage of entire details as per scope of work with value add / proposition so as to ensure a complete effective and efficient solution		
b.	Proposed Solution Strength		
1	DC & DR IT Infrastructure hosting in bidder's commercial data centre with minimum TIA 942/TIA 942A/Uptime Institute Rated 111/ Tier-III compliance for architectural, electrical, cooling and Network	5	The Bidder need to provide IT Architecture landscape and Network architecture along with Technical Solution Document as per
2	DC, DR and NDR IT solution integration, data replication approach and RTO/RPO compliance		

3	Proposed Network infrastructure solution at DC, DR and NDR sites and Integration with proposed connectivity at various locations as mentioned in the RFP		RFP Requirement with an undertaking on the letter head that all the technical & functional requirement highlighted as part of Technical Scope are covered in totality in the proposal submitted by the bidder.
4	Cyber Security solution strength and management. Approach for integration of proposed security tool with Bank's existing C-SoC setup/SIEM		
5	Service offering for Management, Patch Management, Backup Software		
6	Project Timelines, Project plan and delivery approach		
7	Enterprise Class Storage Area Network along with Enterprise Class Storage system, unified storage, SAN switches, Virtual Tape Library, Backup etc.		
8	Bidder's NOC and managed services approach and relevance to RFP requirements		
9	Operation and Maintenance Services and Technical Support desk for a period of 5 years.		
C.	Site Visit for the bidder's Proposed Colocation Service	25	Site Visit (Evaluation based on Annexure-1) and Technical Compliance
D.	Technical Presentation Bidder approach for supply, Installation, Testing and Commissioning of ICT Infrastructure at DC,NDR and Far DR hosted at SP DC and Managed Telecom at Branches / offices with operation & Maintenance	15	Presentation / Document providing necessary details. Technical presentation must fulfil the binding criteria mentioned below*
GRAND TOTAL (A+B)		100	

*The following criteria must be adhered to by all bidders, in connection with the technical presentations during the bid selection process.

- At least one senior representative from bidder's organization should be present in the technical presentations
- Complete soft copies of the presentation materials should be shared with the Bank before the presentation.
- The Bank will expect and demand that the key personnel showcased by the vendor in the technical presentation should be the same person that actively drive the project execution.
- Bidders must strictly adhere to the time slots provided to them for the technical presentation, allowing ample time and scope for question-answers.
- Focus of the presentation should be on the specifics of the solution/approach being proposed for the Bank, not on general elucidation of technologies, tool stacks or concepts.
- Both technical and administrative aspects of the Assignment should be given suitable coverage.
- Focus should be on bringing out clearly what is specific / different / novel about the approach, not on beefing up the presentation with commonly known and/or spurious information
- All aspects of requirements in the RFP should be covered in the presentation – e.g., proposed approach, capability to develop industry grade customized products, processes, frame works,

diagnostic tools, organizational capabilities, team, governance, continuous development, transition approach etc.

- Any assumption, if taken in the response to RFP document should be clearly brought out in the technical presentation, along with the justification.
- Bank's evaluation and scoring on all aspects including technical presentation are final and non-negotiable

Note:

1. Group/Parent organization/company experience shall not be considered.
2. Direct orders from end customers shall be considered
3. The technical score will be allotted by Bank to each bidder against each section and will be considered final.

Sl. No.	Annexure I – Site Visit Parameters	Compliance (Yes/ No)
1	Diesel Tanks (for generators) - The DC site should have high capacity diesel tanks for ensuring 24 hour power backup with contracts for fuel supply on demand	
2	The design for cooling infrastructure at the DC site should be in line with standard guidelines to support high density cooling needs	
3	Redundant CRAC units to facilitate High density cooling needs	
4	The temperature in the server hall should be maintained at 20 +/- 5 deg C	
5	The humidity at the DC site should be maintained at 50 % +/- 5% RH.	
6	The server halls should have advanced fire detection & suppression system through systems like VESDA & FM 200 /FE 227 /NN100 respectively	
7	The DC site should have microprocessor based system to detect water leakage within a short period of time	
8	The DC site should have electronic rodent control systems with operatability on varied frequency range	
9	Biometric Access to the common entry to the Server room should be available	
10	Security for the building to be available 24x7x365 days at the entry / exit levels.	
11	Power should be available from two different power sources.	
12	Two separate power paths from the UPS to be provided to the server / network communication room.	
13	UPS should be configured in redundant mode.	
14	The proposed server area should be well covered in the fire detection and suppression system.	
15	The building & Server room area should be provided with fire alarm system.	
16	There should be CCTV monitoring for surveillance of the server hall area.	
17	The CCTV surveillance should cover Bank's proposed server area. Activities to be recorded and the archival should be kept for at-least 3 months.	
18	The infrastructure should be of tier 3 standards.	
19	Entry & Exit should be restricted and monitored and should also be in CCTV surveillance coverage	
20	Smoke detection and fire suppression for the building to be available.	

Sl. No.	Annexure I – Site Visit Parameters	Compliance (Yes/ No)
21	All the Building Management system (BMS) activities are to be controlled centrally in a room specifically to be used for BMS activities. The vendor should manage the BMS activities on a 24x7x365 days basis.	
22	The doors and walls for the server room, communications room, and other critical areas should be fire rated for minimum 2 hours.	
23	The Server room should have precision air conditioning with redundancy.	
24	The entire infrastructure should have automatic power supply from the transformer as the primary source and automatic switchover to DG set as a secondary source.	
25	Gate passes to enter vendor's premises for Bank's representatives- free of any cost	
26	Audit reports of people accessing the Server room should be available as and when required by Bank.	
27	The cabling should be laid in a separate enclosure below the false floor and should be kept at a distance which does not cause Electro Magnetic Induction with the power cabling	
28	The DC site should be designed and constructed for earthquake resistance.	
29	The DC site building should be away from hazardous chemical materials, LPG storage areas, chemical go-downs and other storage facilities meant for dangerous commodities.	
30	The entire cabling should be structured	
Each Parameters above carries 0.5 mark (Total 15 marks)		
31	Set up and operations in colocation include IT Infrastructure (servers, SAN storage, Network equipment etc.) for at least two DC/DR projects in Commercial Banks / Financial Institutions/ Government / PSU Organizations In India having value more than Rs 2 Crores (5 marks for each Project (Maximum 2 Projects))	

Technical Evaluation Criteria-

ST = Each Technical Proposal will be assigned a Score Technical (ST). The bidder with highest marks obtained (TM) in technical evaluation will be given a Score Technical (ST) of 100 points. The score technical (ST) of other proposals will be computed as follows:

$$ST = 100 \times TS / TM, \text{ where } TS = \text{marks obtained for Technical Proposal}$$

Based on ST (Score Technical) the bid with highest ST score will be termed as T1. The rest of the bidders shall be ranked in descending order of ST Score value as T2, T3, T4 and so on.

Score will be considered up to two decimal places. Technical qualified bid will be considered once it scores minimum score technical (ST) of 70% and above, and rest will be technically rejected. Commercial will not be opened for technically dis-qualified bid.

3.33. Evaluation of Commercial Bids

Commercial bids submitted by only those bidders, who have qualified both pre-qualification and Technical evaluation, will be eligible for further evaluation.

The Commercial Bids of only those Bidders short listed from the Technical Bids by Bank will be opened in the presence of their representatives on a specified date and time to be intimated to the respective Bidders, and the same will be evaluated by Bank.

Bidders will be ranked as per the ascending order of value of their Commercial Bids as (Least Quoted) LQ1, LQ2, LQ3.....and so on, LQ1 being the lowest Financials.

SF = Each commercial Proposal will be assigned a financial score (SF). The lowest GTV(Grand Total Value) (FM) will be given a financial score (SF) of 100 points. The financial scores of other proposals will be computed as follows:

$SF = 100 \times FM/LQx(1,2,3...),$ where LQx = Amount of Financial Proposal (GTV)

Based on SF (Score Financial) the bid with highest SF score will be termed as L1. The rest of the bidders shall be ranked in descending order of SF Score value as L2, L3, L4 and so on.

Bidders quoting incredibly low or unrealistic high cost of items leading to unrealistic GTV with a view to subverting the tender process shall be rejected straight away by Bank and EMD of such vendor will be forfeited. Any bid found to be unsatisfactory in terms of any of the evaluated parameters as mentioned may be rejected and will not be considered for further evaluation.

3.34. Final Bid Evaluation (Techno commercial bid):

The evaluation of the tender is based on QCBS (Quality and Cost Based Selection).

The Combined Final Score contains 70% weightage for technical evaluation and 30%

weightage for commercial evaluation. Therefore, combined and final evaluation will be done on the following basis:

Proposals will finally be ranked according to their combined Techno commercial score (TC) based on the below mentioned formula:

$$TC = ST*0.7 + SF*0.3$$

Bidders will be ranked basis their Final Techno Commercial Score (TC) i.e. TC1, TC2, TC3...and so on, TC1 being the highest Combined Final Score.

The shortlisted bidder will be declared after thorough evaluation of commercial bid by Bank. During the evaluation if the Bank finds that the detailed commercial bid is not in order or not complete etc. then Bank will treat his bid as non- viable and same will be rejected, and EMD will be forfeited. In such case the next ranked techno commercial bidder will be considered for further evaluation and so on till a bidder is selected.

If any bidder withdraws his bid, at any stage after the submission of the bid, till the final evaluation or declaration of the final selected bidder, it will be declared a defaulting bidder and EMD of such defaulting bidder will be forfeited and THE NAINITAL BANK LTD. reserves right to blacklist such bidders for next three years from participating in any THE NAINITAL BANK LTD. tender. In such situation the tendering process will be continued with the remaining bidders as per their ranking.

If the bidder backs out after being declared as selected bidder, it will be declared a defaulting bidder and EMD of such defaulting bidder will be forfeited and THE NAINITAL BANK LTD. reserves right to blacklist such organization for next three years from participating in any THE NAINITAL BANK LTD. Tender. In such case the detailed commercial bid of next ranked techno commercial bidder will be evaluated,

- a) If the detailed commercial bid is found in order, complete and its GTV is less than the withdrawing bidder, then this bidder will be declared as selected bidder and will provide services at its own quoted rates.
- b) In case the GTV of next ranked techno commercial bidder is higher than the withdrawing bidder, then it should match the detailed commercial bid offered by withdrawing bidder in toto.
- c) If next ranked techno commercial bidder also backs out then the Bank will complete the tender process by following the aforesaid process again for other remaining techno- commercial ranked bidders.

Please note that if, after various rounds of evaluation to shortlist a Bidder in place of

defaulting bidder, the Bank does not find any suitable bidder amongst remaining eligible bidders, then the Bank shall be at its liberty to reject or accept the bid of the next ranked techno commercial bidder.

3.35. Bank's Right to Vary Scope of Contract at the time of Award

The Bank may at any time, by a written order given to the Bidder, make changes to the scope of the Contract as specified.

If any such change causes an increase or decrease in the cost of, or the time required for the Bidder's performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract Value or time schedule, or both, as decided by the bank and the Contract shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause (Clause 3.35) must be asserted within thirty (30) days from the date of the Bidder's receipt of the Bank's changed order.

3.36. Bank's Right to Accept Any Bid and to Reject Any or All Bids

The Bank reserves the right to accept any bid, and to annul the RFP/Tender process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Bank's action.

3.37. Notification of Award

Prior to the expiration of the period of bid validity (180 days from last date of bid submission), the Bank will notify the successful Bidder in writing that its bid has been accepted.

The notification of award will constitute the formation of the Agreement/Contract, requiring the successful Bidder to furnish Bank Guarantee, favouring The Nainital Bank Ltd. of 10% of the Work/Purchase Order Value for ensuring contract performance. Thereafter the Bank will notify each unsuccessful Bidder and will return/release its EMD.

3.38. Award of Contract

There will be only one vendor.

At the same time as the Bank notifies the successful Bidder that its bid has been accepted, the Bank will send the Bidder the Proforma of Contract.

Within 15 days of receipt of the Proforma of Contract, the successful Bidder shall sign and date the Contract and return it to the Bank along with the Bank Guarantee, favouring The Nainital Bank Ltd. of 10% of the Work/Purchase Order Value for contract performance.

The contract period will be commencing from the date of signing of contract and will be valid for 5 yrs from the date of Project Final Acceptance Test. THE NAINITAL BANK LTD. reserves the right to extend the contract for further period of two years.

Keeping in view the project commitment, The Nainital Bank Ltd. reserves the right to ask the vendor to add new features/ process or modify the existing solution to take care the service delivery for matching the project requirements as and when required.

Vendor has to agree for honouring all tender conditions and adherence to all aspects of fair trade practices in executing the purchase orders placed by THE NAINITAL BANK LTD.

If the name of the system/service/process is changed for describing substantially the same in a renamed form; then all techno-fiscal benefits agreed with respect to the original product, shall be passed on to THE NAINITAL BANK LTD. and the obligations with THE NAINITAL BANK LTD. taken by the Vendor with respect to the product with the old name shall be passed on along with the product so renamed.

The above Security Deposit will be in the form of Bank Guarantee (BG) of any Scheduled Commercial Bank. Security Deposit should be valid for the entire contract period of 60 months and renewed for extended period, if required, and thereafter on satisfactory performance and completion of contract, the Security Deposit shall be refunded to the vendor without any interest.

THE NAINITAL BANK LTD. may, at any time, terminate the contract by giving written notice of -30- days to the vendor without any compensation, if the vendor becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to THE NAINITAL BANK LTD. If at any point during the contract, if the vendor fails to, deliver as per the tender terms and conditions or any other reason amounting to disruption in service, the Termination and Exit Management clause to be incorporated in contract, will be invoked.

In case of any takeover/merger/acquisition/transfer of ownership of bidder, the responsibility for smooth transition to the new entity lies with the bidder.

3.39. Placing of Purchase Orders

Quantities mentioned in BoQ (Bill of Quantity) are merely indicative and THE NAINITAL BANK LTD. reserves the right at the time of award of purchase order to increase or decrease the quantity of goods and / or services from what was originally specified while floating the RFP without any change in unit price or any other terms and conditions.

For procurement of Hardware/software/solution/system/service including telecom, Purchase order will be placed on the vendor in hardcopy format.

Objection, if any, to the Purchase Order must be reported to the Bank by the vendor within five (5) working days counted from the date of receipt of Purchase Order for modifications, otherwise it is assumed that the vendor has accepted the Purchase Order in toto.

If the vendor is not able to supply/deploy/operationalize the ordered Hardware/software system/service/process completely within the specified period, the penalty clause will be invoked.

The decision of THE NAINITAL BANK LTD. shall be final and binding on all the vendors to this document. THE NAINITAL BANK LTD. reserves the right to accept or reject an offer without assigning any reason whatsoever.

3.40. Bank Guarantee for Contract Performance

Within thirty days of the receipt of notification of award from the Bank, the successful Bidder shall furnish the performance security in the form of Bank guarantee, favouring BANK valid for a period of 60 months from the date of Signing of Contract in accordance with the Conditions of Agreement/Contract.

Failure of the successful Bidder to comply with the requirement mentioned in document shall constitute sufficient ground for the annulment of the award and forfeiture of the EMD. In case of exigency, if the Bank gets the work done from elsewhere, the difference in the cost of getting the work done will be borne by the successful Bidder.

Performance bank Guarantee as per following schedule:

S.no.	Item	Value
1	Instrument	One single Deposit in the form of Bank Guarantee
2	Validity of Performance Bank Guarantee	Bank Guarantee to be submitted along with the duly stamped and signed contract and should be valid for a period of 60 months from the date of Project Final Acceptance Test. In case there is an extension of contract beyond 60 months, Bidder has to provide the BG for that extended period.
3	Amount	10% of Purchase Order value

3.41. Confidentiality of the Document

The RFP Document to be submitted by bidder is confidential and the Bidder shall ensure that anything contained in RFP Document shall not be disclosed in any manner, whatsoever.

3.42. Tender Related Condition

The Bidder should confirm unconditional acceptance of full responsibility of completion of job and for executing the 'Scope of Work' of this tender. This confirmation should be submitted as part of the Technical Bid. The Bidder shall also be the sole point of contact for all purposes of the Contract.

The Bidder should not be involved in any major litigation/arbitration that may have an impact of affecting or compromising the delivery of services as required under this contract. If at any stage of Tendering process or during the currency of the Contract, any suppression / falsification of such information is brought to the knowledge of the Bank, the Bank shall have the right to reject the bid or terminate the contract, as the case may be, without any compensation to the Bidder and claim damages before the court of law, resulting from such rejection/termination as the case may be.

3.43. Rejection Criteria

Besides other conditions and terms highlighted in the RFP Document, bids may be rejected under following circumstances:

3.43.1 General Rejection Criteria

- Bids submitted without or improper EMD and/or Application Money.

- Bids received through Telex / Telegraphic / Fax/E-Mail will not be considered for evaluation.
- Bids which do not confirm unconditional validity of the bid as prescribed in the Tender.
- If the information provided by the Bidder is found to be incorrect/ misleading at any stage / time during the Tendering Process.
- Any effort on the part of a Bidder to influence the Bank's bid evaluation, bid comparison or contract award decisions.
- Bids received by the Bank after the last date and schedule time for receipt of bids as prescribed by the Bank.
- Bids without letter of authorization and without any other document consisting of adequate proof of the ability of the signatory to bind the Bidder.

3.43.2 Technical Rejection Criteria

- Technical Bid containing commercial details.
- Revelation of Prices in any form or by any reason before opening the Commercial Bid.
- Failure to furnish all information required by the RFP Document or submission of a bid not substantially responsive to the RFP Document in every respect.
- Bidders not quoting for the complete scope of Work as indicated in the RFP Documents, addendum (if any) and any subsequent information given to the Bidder.
- Bidders not complying with the material technical requirement by way of functionality, specifications and General Terms and conditions as stated in the RFP Documents.
- The Bidder not confirming unconditional acceptance of full responsibility of providing services.
- If the bid does not confirm to the timelines indicated in the bid.
- Bidder not scoring minimum marks as mentioned in Tender

3.43.3 Commercial Rejection Criteria

- Incomplete Financial Bid
- Financial Bids that do not conform to the Tender's Financial bid format
- Total price quoted by the Bidder does not clarify regarding all statutory taxes and levies applicable.

- If there is an arithmetic discrepancy in the commercial bid calculations the Bank shall rectify the same at its discretion. If the Bidder does not accept the correction of the errors, its bid may be rejected.

4. Section III – General Conditions of Contract and Service Levels Agreement

Quality: Material not confirming to given specifications will be rejected & it will be replaced by the vendor, free of cost. The material must be as per the detailed specifications listed out in BoQ and shall be as per standard engineering practice, relevant IS/ Imitational code of practice, and shall be as per the Specifications as mentioned in RFP Document.

Statutory Laws: Vendor shall abide by all applicable rules and regulations regarding taxes, duties, labour etc., which are in force and from time to time enforced by the Government of India, also registration, labour laws, payments, ESIC, PF, insurance etc. Vendor shall coordinate for all these matters with concerned authorities directly.

Confidential Information: All information exchanged between the parties will be confidential. If the implementation project requires disclosure of, or receipt of, confidential information, such disclosure or receipt will be made with mutual agreement and may be with a separately executed MoU / Non-Disclosure agreement with Vendor by the Bank.

Extra Deviated Items: Any extra item like variation in quantity, deviated item should be executed only after getting the appropriate approvals with written confirmation, from the bank. At the time of submitting the invoice, all the documentary evidence of appropriate approvals for Extra / deviated Items / Variation in Quantities should be attached. Payments will not be made without scrutiny of aforesaid approvals.

Force Majure: Bank shall not be responsible for delays or non-performance of any or all obligations, contained in this RFP or agreement thereafter, caused by war, revolution, insurrection, civil commotion, riots, mobilizations, strikes, blockade, acts of God, Plague, epidemics or pandemics, fire, flood, obstructions of navigation

by ice of Port of dispatch, acts of government or public enemy or any other event beyond the control of the bank, which directly, materially and adversely affect the performance of any or all such obligations. However, the bidder shall continue to perform its obligations as contained in this RFP and agreement thereafter.

Arbitration: The Bank and the Bidder shall make every effort to resolve amicably, by direct negotiation between the respective Designated Officials of the bank and the Bidder, any disagreement or dispute arising between them under or in connection with the RFP and or contract thereafter.

If the designated official of the Bank and the Bidder are unable to resolve the dispute within -30- days from the commencement of such informal negotiations, they shall immediately escalate the dispute to their Senior Authorized Personal.

If within -30- days from the commencement of such negotiations between the Senior Authorized Personal designated by the Bidder and Bank, are unable to resolve their dispute amicably, in such case the dispute shall be settled finally by arbitration in, Uttarakhand, India under and in accordance with the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof. The right to appoint arbitrator shall lie with the bank only.

Jurisdiction: The Jurisdiction for all disputes will be in the city of Nainital (Uttarakhand), India.

Safety: All the safety codes and the preventive measure for this type of work shall be strictly followed. In case of any mishap which causes injury, disability or death of any personnel and staff either on site or offsite during or after the duration of the project due to negligence of the staff of the vendor, shall be sole responsibility of vendor, this shall not be responsibility of Bank in any case. No Claims in this regards shall be paid by Bank.

4.1.Stipulated Time Schedule

The key milestone dates as anticipated by the Bank are-

<p style="text-align: center;">Date of release of Purchase Order-T day Purchase Order acceptance by successful bidder-T+5 day</p>				
Sr.	Item	Date of Submission from "T"(*)	Penalties	Remarks
1	Delivery of all ICT infrastructure components (all requisite Hardware+ Software) for all sites as per Phase -I (refer SOW Point -6.1)	T + 60 Days	If the bidder fails to deliver any or all goods or perform services within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the rate contract, deduct penalty at the rate of 0.3% of the order value of undelivered equipment / system for per Day of delay, as late delivery charges until actual delivery of the equipment subject to a maximum of 5%. The Penalty will be charged on Purchase order value for the items for which delivery is delayed.	Shall be deemed to have completed when the Delivery of all the goods/items under the proposed bill of material has reached the designated Data Centre Site for installation, and accepted by the NAINITAL BANK. authorities.
2	Installation, configuration and commissioning of all ICT infrastructure components (hardware, OS, DB) as part of Phase 1 . The infra should be ready to handover to CBS application provider to start	T + 90Days	If the bidder fails to perform Installation, configuration and commissioning within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the RFP, deduct penalty at the rate of 0.3% of the	On Successful signoff by the Bank Authority

	implementation of application software.		purchase order value for per day of delay, as late installation charges until actual sign off of the solution subject to a maximum of 5%. The Penalty will be charged on Purchase order value	
3	Delivery, Installation and configuration of Links and related SDWAN Configuration for DC-DR-NDR, Bank's PMO and existing SOC	T+105Days	If the bidder fails to perform Installation, configuration and commissioning within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the RFP, deduct penalty at the rate of 0.3% of the purchase order value for per day of delay, as late installation charges until actual sign off of the solution subject to a maximum of 5%. The Penalty will be charged on Purchase order value	On Successful signoff by the BANK. Authority
4	Delivery, Installation, configuration and commissioning of Links and related SDWAN Configuration for 20 Pilot sites/Branch/Offices for simulation testing	T+150Days	If the bidder fails to perform Installation, configuration and commissioning within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the RFP, deduct penalty at the rate of 0.3% of the purchase order value for per day of delay, as	On Successful signoff by the BANK. Authority

			late installation charges until actual sign off of the solution subject to a maximum of 5%. The Penalty will be charged on Purchase order value	
5	Delivery, Installation, configuration and commissioning of all Links and related SDWAN Configuration at all Branches/Offices as per RFP (Annexure D) under Phase 2.	T+210Days	If the bidder fails to perform Installation, configuration and commissioning within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the RFP, deduct penalty at the rate of 0.3% of the purchase order value for per day of delay, as late installation charges until actual sign off of the solution subject to a maximum of 5%. The Penalty will be charged on Purchase order value	On Successful signoff by the BANK. Authority
6	Installation, integration and configuration of ICT setup of backup configuration, DRM configuration, Security Policy, Integration with SoC, Replication testing etc at DC-DR-NDR as per Scope of RFP	T+225Days	If the bidder fails to perform Installation, configuration and commissioning within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the RFP, deduct penalty at the rate of 0.3% of the purchase order value for per day of delay, as	On Successful signoff by the BANK. Authority

			late installation charges until actual sign off of the solution subject to a maximum of 5%. The Penalty will be charged on Purchase order value	
7	Final Acceptance Test (FAT)	T+240 Days	If the bidder fails to perform FAT within stipulated time schedule, the Bank shall, without prejudice to its other remedies under the RFP, deduct penalty at the rate of 0.3% of the purchase order value for per day of delay, as late FAT charges until actual sign off of the solution subject to a maximum of 5%.	On successful acceptance and signoff by Bank's authorized official.

The Bidder shall perform the Services and comply in all respects with the critical dates and failure on part of the Bidder to meet the critical dates without prejudice to any other rights that the Bank may have, may lead to the imposition of such obligations as are laid down in the Delay and Deterrent Mechanism and/or levy of penalty and/or termination of the Contract at the discretion of the Bank.

4.2. Term and Extension of the Contract

The term of this Contract will commence from the date of signing of contract/agreement and will be valid for a period of five years, extendable further for two years.

The Bank shall reserve the sole right to grant any extension to the term above mentioned and shall notify in writing to the Bidder, at least 6 months before the expiration of the

Term hereof, whether it will grant the Bidder an extension of the Term. The decision to grant or refuse the extension shall be at the Bank's discretion.

During extended period of two years if deemed appropriate (THE NAINITAL BANK LTD. reserve right to extend the agreement with Bidder), the term and conditions for SLA, penalty and Prices for On-premise services, AMC & Manpower shall remain same as given for 5th Year.

Where the Bank is of the view that no further extension of the term be granted to the Bidder, the Bank shall notify the Bidder of its decision at least 6 (six) months prior to the expiry of the Term. Upon receipt of such notice, the Bidder shall continue to perform all its obligations hereunder, until such reasonable time beyond the Term of the Contract within which, the Bank shall either appoint an alternative service provider or create its own infrastructure to operate such Services as are provided under this Contract. In such scenario, the terms and conditions for SLA, penalty and Prices for On-premise services, AMC & Manpower shall remain same as given for 5th Year.

4.3. Prices

Prices quoted must be firm and shall not be subject to any upward revision on any account whatsoever throughout the period of contract. However, if there is any increase/decrease in taxes/ duties due to any reason whatsoever, after Notification of Award, the same shall be passed on to The Nainital Bank Ltd.

4.4. Payment Schedule

Payments will be released only on satisfactory acceptance of the deliverables for each Task as per the following schedule:

Sr. No.	Item	Fee Payment	Deliverables
1	Mobilization advance	5% payment of CAPEX cost for Hardware's + Software's for infra under Phase-I will be paid as mobilization advance.	On submission of PBG and signing of agreement.
2	Delivery of all ICT infrastructure components (Hardware's + Software's for Phase-1)	40% payment of total CAPEX cost for Hardware's + Software's under Phase-I.	Bidder will share the Proof of Delivery of hardware + software at all designated location as per BOQ Proposed

3	Installation, configuration, commissioning of all ICT Infrastructure and handover it to application provider (Phase I)	30% payment of CAPEX cost shall be made after Installation, configuration, commissioning of components covered under Phase-I and handover it to CBS application provider.	Submitted the report of successful installation of hardware and software and handover to application vendor.
4	Infra- One time Charges	50% after completion of Phase 1 40% after installation of Phase 2	Submitted the report of successful installation of hardware and software
5	Telecom – One Time Cost*	100% of OTC of all sites (except pilot sites) covered under Phase-I will be paid on commissioning of all links at respective sites. 100% of OTC of 20 pilot sites will paid on commissioning of links at respective pilot sites. 50% of OTC of sites in Phase 2 on Installation and commissioning of link of remaining sites on pro-rata basis. 25% of OTC of sites in Phase 2 on successful simulation run of CBS application by application service provider and Bank team from all locations.	Link sign-off by Network Admin of Bank and service provider for each phase, pilot sites and rest of the branch sites.
6	On successful Go-LIVE of DC, DR, NDR and all sites along with operationalization of all application and interfaces.	Remaining 25% of CAPEX. Remaining 10% of Infra OTC. Remaining 25% of telecom OTC of remaining sites of Phase 2.	GO-LIVE declared by Bank's authorized official
7	Telecom charges(link charges) during application implementation phase till GO-LIVE*	Monthly in arrears after successful commissioning of links of respective sites as per Table F	Submission of bill for monthly recurring charges for telecom services

***Calculation for Telecom OTC and Monthly link charges will be referred from Table F. Monthly charges will be paid till GO-LIVE and thereafter OPEX charges per month**

per site in Section VI -Financial bid will be applicable.

All Payments shall be made in Indian Rupees Only and shall be released by the Bank against the invoices raised by bidder within 30 calendar days given all the relevant documents are submitted timely and are complete in all reference.

Note:

- All payments will be made through electronic mode only.
- Payments should be subject to deductions of any amount for which the Bidder is liable under the tender conditions. Further, all payments shall be made subject to deduction of TDS (Tax deduction at Source) as per the applicable Income-Tax Act.

4.5. Service Level Agreement & Targets

SLA as described under point no. 4.6, provides for minimum level of services required as per contractual obligations based on performance indicators and measurements thereof. The Vendor shall ensure provisioning of all required services while monitoring the performance of the same to effectively comply with the performance levels.

The services provided by the Vendor shall be reviewed by the THE NAINITAL BANK LTD. and THE NAINITAL BANK LTD. shall:

- Check performance of the Vendor against this SLA over the review period and consider any key issues of the past period's performance statistics including major incidents, service trends, etc.
- Discuss escalated problems, new issues and matters still outstanding for resolution.
- Review of statistics related to rectification of outstanding faults and agreed changes.
- Obtain suggestions for changes to improve the service levels.

In case desired, THE NAINITAL BANK LTD. may initiate an interim review to check the performance and the obligations of the Agency. The SLA may be reviewed periodically and revised, if required.

The SLA take into consideration the following aspects-

1. Equipment Availability Related Service Levels

2. Technical Support desk Services
3. Compliance and Reporting Procedures

The following measurements and targets shall be used to track and report performance on a regular basis. The targets shown in the following table are applicable for the duration of the contract.

4.6. Service Level Agreements*

S.No	Availability	Uptime (Monthly)	Impact	Penalty
1	Total Service availability of the ICT Setup (Complete HA uptime)	99.90%	44 Minutes of downtime in a month	No Penalty
		>= 99.5% to < 99.9%	<= 3.65 hours to > 45 minutes of downtime in a month	0.50% of the monthly bill of ICT managed services. Penalty amount shall be deducted from next month bill payment. .
		>= 99.0% to < 99.5%	<= 7.30 hours to > 3.65 hours of downtime in a month	1.0% of the monthly bill of ICT managed services. Penalty amount shall be deducted from next month bill payment.
		< 99.0%	> 7.30 hours of downtime in a month	5.0% of the monthly bill of ICT managed services. Penalty amount shall be deducted from next month bill payment.
2	Total Service link failure of the Telecom Setup at branch except 3G, 4G	99.00%		No Penalty
		>= 98.0% to < 99.0%		0.15% of the monthly bill of Telecom services. Penalty amount shall be deducted from next month bill payment.
		>= 96.0% to < 98.0%		0.25% of the monthly bill of Telecom services. Penalty amount shall be

				deducted from next month bill payment
		< 96.0%		1.0 % of the monthly bill of Telecom services. Penalty amount shall be deducted from next month bill payment

*SLA may be changed by the bank at its discretion during signing of agreement with the qualified bidder.

SLA & uptime calculation for Telecom links shall be done as per “Uptime Calculation – Telecom” mentioned under Scope of Work in this RFP.

4.7. Managed Services SLA for DC and DR Infra

S.No	Event of Default	Definition	Measurement Interval	Target	Penalty
1	Resolution Time	“Resolution Time”, means time taken by the Bidder staff to troubleshoot and fix the problem from the time the call has been logged from the THE NAINITAL BANK LTD. Support desk till the time the problem has been fixed.	Monthly	100% calls maximum to be resolved within 6 Hrs at Bank’s location.	No Penalty

		The Technical Support desk will typically receive calls/mail/ticket from THE NAINITAL BANK LTD. support desk for account creation, deletion, system administration, server not accessible, ad-hoc report generation etc.		Unresolved call	Rs.1000 for every 1 day of delay on an incremental basis for every unresolved call.
2	Submission of MIS Reports	The Bidder shall submit the MIS reports as defined in agreement signed after shortlisting of successful bidder	Monthly	All MIS Reports for the previous Month shall be submitted by the 5th of the next Month	No Penalty
				Delay beyond the date of submission	Rs.1000 for every day's delay on an incremental basis.

3	Incident Reporting	Any failure/incident on any part of the Data Centre infrastructure or its facilities shall be communicated immediately to THE NAINITAL BANK LTD. as an exceptional report giving details of downtime, if any.	Monthly	100% incidents to be reported to BANK. within 1 hour with the cause, action and remedy for the incident.	No Penalty
				Delay beyond 1 hour	Rs.100 for every hour delay on an incremental basis.
				100% incident log/security logs/systems logs to be sent to THE NAINITAL BANK LTD/ it's SOC that comprises exceptional & normal reportable activities within 24 hours of its generations	No Penalty

				Delay beyond the date of submission	Rs.5000 for every day's delay on an incremental basis.
4	Change Management	Measurement of quality and timeliness of changes to the Data Centre facilities	Monthly	100% of changes should follow formal change control procedures. All changes need to be approved by THE NAINITAL BANK LTD.	Rs.1000 for every non-compliance.

SLA may be changed by the bank at its discretion during signing of agreement with the qualified bidder. Penalty will be calculated for every preceding month and will be deducted in the current month billing.

5. Section IV – Bid Submission Format

5.1. Bidder Profile

Sr	Particulars	Details
1.	Name of the Bidder	
2.	Address of the Bidder	
3.	Status of the Company (Public Ltd/ Pvt. Ltd)/Firm/LLP etc.	
4.	Details of Incorporation of the Company/Firm	
5.	Details of Commencement of Business	
6.	GST registration no.	
7.	a. Permanent Account Number (PAN)& b. TAN	
8.	Name & Designation of the authorized contact person to whom all references correspondence shall be made regarding this tender	
9.	Telephone No. (with STD Code) a) Landline b) Mobile	
10.	E-Mail of the contact person:	
11.	Fax No. (with STD Code)	
12.	Website	
13.	Financial Details (as per audited Balance Sheets) (in Cr)	
14.	Year	2017-2018
		2018-2019
		2019-20
15.	Net Worth	
16.	Turn Over (Total)	
17.	Turn Over (from Indian Operations)	

18.	Turn Over (from data centre operations)			
19.	Profit After Tax (PAT)			
20.	Net Profit			

5.2.Manufacturer Authorization Format

Manufacturer's Authorization Form

(This letter should be on the letterhead of the OEM/ Manufacturer duly signed by an authorized signatory)

To,
The Chief Operating Officer
Nainital Bank Limited
Head Office
Mallital, Nainital -263001 (Uttarakhand)

Madam/Dear Sir,

**Ref: - RFP no..... dated, for SUPPLY,
INSTALLATION, TESTING AND COMMISSIONING (SITC) OF ICT
INFRASTRUCTURE FOR BANK COLLOCATED DATA CENTRE, NDR AND
DISASTER RECOVERY SITE**

We (Name of the OEM) who are established and reputable manufacturers / developers of having factories / offices atand do hereby authorize M/s (who is the bidder submitting its bid pursuant to the Request for Proposal issued by the Bank) to submit a Bid and negotiate and conclude a contract with you to Supply, Installation and Maintenance of for supply of manufactured / developed by us against the Request for Proposal received from your Bank by the Bidder and we have duly authorised the Bidder for this purpose.

We undertake to perform the obligations as set out in the RFP in respect of such services and hereby extend our support and services through M/s..... during the 5 year contract period (further extendable for 2 years) as per terms and conditions of the RFP.

We assure you that in the event of M/s not being able to fulfill its obligation in respect of the terms defined in the RFP then (OEM Name) would continue to meet these either directly or through alternate arrangements without any additional cost to the Bank.

Dated this.....by20

Yours faithfully,
Authorized Signatory
Name:
Designation:
Bidder's Corporate Name
Address
Email and Phone #

5.3.Undertaking by OEM as bidder(Applicable when OEM is the bidder)

Undertaking by OEM as Bidder

(This letter should be on the letterhead of the OEM/Manufacturer duly signed by an authorized signatory)

To,
The Chief Operating Officer
Nainital Bank Limited
Head Office
Mallital, Nainital-263001 (Uttarakhand)

Madam/Dear Sir,

**Ref: - RFP no..... dated, for SUPPLY,
INSTALLATION, TESTING AND COMMISSIONING (SITC) OF ICT
INFRASTRUCTURE FOR BANK COLLOCATED DATA CENTRE, NDR AND
DISASTER RECOVERY SITE**

We, (Name of the OEM) having our registered office at, are an established and reputable manufacturers / developers of for above mentioned Request for Proposal.

We confirm that we are participating in the RFP as a bidder.

Our full support is extended to Bank in all aspects of supply, on-site warranty, maintenance and subscription of We assure to provide the service support for the supplied for the 5 year contract period (further extendable for 2 years) from date of issuance of supply / installation as per RFP terms. We also assure that our on-site service support would be available to Bank on 24x7 basis. We assure that the quoted items (.....) would NOT be declared End of Life during the 5 year contract period (further extendable for 2 years) . In case such a condition arises, we assure to replace such items with items of equivalent or better specifications without any financial implication to Bank.

Yours faithfully,

Authorized Signatory

Name:

Designation:

Bidder's Corporate Name

Address

Email and Phone #

5.4.Declaration for Non-Blacklisting

UNDERTAKING FOR NON- BLACKLISTED

To be provided on letter head of the Bidder's Company

Dated:

Place:

The Chief Operating Officer
Nainital Bank Limited
Head Office
Mallital, Naninital -263001 (Uttarakhand)

Sir,

Reg.: RFP Reference No: NTB/IT/INFRA/2020/07/004

We M/s _____, a company incorporated under the companies act, 1956/2013 with its headquarters at _____, do hereby confirm that we have not been blacklisted/ debarred by the Statutory, Regulatory or Government Authorities or Public Sector Undertakings (PSUs / PSBs) or Private Banks or Financial Institutions in India during last 3 years.

This declaration is been submitted and limited to, in response to the tender reference mentioned in this document

Thanking You,

Yours faithfully,

Signature of Authorized Signatory

Name of Signatory:

Designation:

Seal of Company

5.5.Undertaking of Information Security

(This letter should be on the letterhead of the bidder as well as the OEM/ Manufacturer duly signed by an authorized signatory on Information security as per regulatory requirement)

To,
The Chief Operating Officer
Nainital Bank Limited
Head Office
Mallital, Nainital-263001 (Uttarakhand)

Madam/Sir,

Sub: RFP for Supply, Installation and Maintenance of

We hereby undertake that the proposed hardware / software to be supplied will be free of malware, free of any obvious bugs and free of any covert channels in the code (of the version of the application being delivered as well as any subsequent versions/modifications done)

Dated this.....by20

Yours faithfully,

Authorized Signatory
Name:
Designation:
Bidder's Corporate Name
Address
Email and Phone #

6. Section V: Scope of Work

6.1.Detailed Scope of Work:

The minimum specified scope of work to be undertaken by the bidder shall be for Supply, installation, testing and commissioning (SITC) of ICT infrastructure at DC, near DR and far DR hosted at service provider data center and managed telecom at all The Nainital Bank Ltd. branches/offices (existing & future) with operation & maintenance.

The selected bidder shall ensure a solution uptime as per SLA defined under point no. 4.5, 4.6, 4.7, during entire contract period including extended period, if any.

The overall Scope of Work (SoW) for the bidder to be appointed through this Tender includes the following but not limited to-

- a) DC and DR should be at least a tier III facility.
- b) Near DR facility should be at least a Tier II facility.
- c) Complete Project is divided in 2 Phases.
 - a. **Phase 1** of IT Infrastructure includes:
 - i. Proposed DC, DR, NDR, Bank's SOC, RTGS Cell, Service Branch in Delhi, Head Office Nainital, Regional Offices, Project Management Office Haldwani and 20 pilot Branch sites as decided by Bank at the time of signing of agreement.
 - ii. Infrastructure supply, installation and readiness for application e.g. installing & configuring compute, storage, network, security and provision rack space at above requisite location as per BOQ.
 - iii. Multi-layer security as mentioned in scope should be enabled.
 - iv. Configuration and integration of security components should be done as per the guidelines provided by Nainital Bank Ltd.
 - v. Bank intends to have near Zero data loss solution by deploying 3-Way DR (DC, NDR, and DR sites). RTO and RPO shall not be more than 120 minutes and 15 minutes respectively.
 - vi. Minimum sizing for infrastructure requirement is provided in later section of RFP, based on which bidder can propose dedicated compute and storage with other components on Opex/amortized model as per commercial bid formats. There should not be any deviation in commercial bid format.
 - vii. All the components at DC, DR and Near DR sites i.e. Network,

Security, Compute and Storage shall be dedicated to bank and must not be shared with any other infrastructure/customer. Dedicated infrastructure shall be auditable and audit can be done by bank and bank authorized person.

- viii. Implementation and commissioning of connectivity network links for sites mentioned in point (i) above along with SD-WAN devices.
- ix. The infra required at all sites under this phase should be deliver, install, integrate and handover to the application vendor to install the requisite application and interfaces to start mock migration and initiate UAT.

b. Phase 2 of IT Infrastructure includes:

- i. All Remaining sites of Bank not mentioned in pt (i) of Phase I above.
- ii. Installation, Testing, commissioning and fine tuning of entire IT infrastructure as per application requirement at all remaining locations of the Bank.
- iii. Configuration and testing of backup, DRM, application specific security policies, and integration of supplied infrastructure as per BOQ and security compliances mentioned in the RFP.
- iv. All the system logs should be properly stored for the period of 6 months & archived for future analysis with retention of 10 years. These Log Sources should be enabled for syncing at SOC Location of THE NAINITAL BANK LTD as per Bank guidelines.
- v. Designing, implementation and Configuration of Windows Active Directory Environment up to branch level (End user). Bidder need to Consider 1000 CAL for Active Directory.
- vi. Disk based backup for 15 daily backups, 8 weekly backups, and 13 monthly and 11 yearly backups.
- vii. Ship one copy of monthly data out to The Nainital Bank's Head Office at Nainital or RDC Haldwani or any preferred location decided by the Bank.

- d) Centralized environment to host multiple applications with simplified operations and increased application responsiveness to support next generation of distributed applications. The solution should be able to provide a unified management of performance, capacity and compliance of infrastructure.

- e) Five years (extendable for further 2 years) comprehensive maintenance and provisioning of services of all the ICT Infrastructure and their components supplied as per BOQ, on 24x7x365 basis after successful execution and acceptance by The Nainital Bank Ltd.
- f) The bidder should ensure that all the supplied hardware and software for the solution must not be End of Support / End of Service and Spares/Upgrades (Excluding OS version Upgrade) should be available for the contract period. In case of any equipment goes End of life from OEM, the service provider has to replace it with same or higher specifications without any extra cost to the Bank to keep the solution working. This Clause of RFP Supersede all the warranty clause mentioned in hardware's specs/compliances. However, for OS version upgradation, service Provider will submit the additional cost for upgradation and upon confirming by the Bank service provider will upgrade the OS.
- g) All software licenses shall be supplied with latest version and should have version downgrade rights. Patches and updates shall be available to Bank for the contract period of supplied software components as part of the solution.
- h) "Installation Certificate" and "Acceptance report for successful commissioning" must be maintained by the selected bidder for future references. The formats would be finalized in consultation with the Bank. This shall be onetime activity.
- i) Implementation and commissioning of ITSM Software for, management, monitoring, helpdesk & ticketing, Asset management, incident, problem and change management as part of the solution in subscription model. Proposed ITSM software should be leader in latest Gartner's magic quadrant.
- j) Bidder shall provide Disaster Recovery Management Software, to achieve near Automated Failover and failback.
- k) Bidder has to provide 4 full blown successful DR Drill per annum where every Drill will maximum exceed up to one month.
- l) Bidder has to provide the antivirus servers and patch management servers at DR Location for DC, DR, NDR and end users.
- m) Bank has a requirement of 1500 end users desktops/laptops and bidder has to provide Anti-virus and patch management solution with maintenance for the same alongwith required infrastructure/Virtual Machine/Operating system etc.
- n) All End user machine are Windows 8 and above.
- o) Bidder has to provide connectivity from the DC-DR-NDR setup with existing Managed G-SOC location in Bangalore. Required bandwidth and Implementation has to be provided by bidder. Bidder has to make logs generated by various devices

available in such a way so that it can be integrated with existing SOC.

- p) Complete ownership of integration various components as a functional solution, Installation, testing, commissioning and operations and management of supplied items as per BOQ is bidder's responsibility. Bidder shall be responsible to supply and install minor components required to make solution functional e.g. patch cords, cables, connectors, ports etc.
- q) Ownership of items procured in CAPEX is with Nainital Bank Ltd
- r) Items being used in OPEX model and are dedicated to Bank, Nainital Bank Ltd can take ownership of the same after paying Net Present Value (NPV) of the respective item.
- s) Services taken in subscription model e.g. Telecom, managed services and other items/services shall be owned by the bidder and shall be offered to Nainital Bank Ltd as a service.
- t) Racks provided by the bidder for hosting of infrastructure at DC, DR and NDR sites should be provisioned for Nainital Bank Ltd and other customer/organization infrastructure should not be hosted in the same rack provisioned for Nainital Bank Ltd. These racks should be lockable and bidder must take prior permission from Nainital Bank Ltd for any physical access of these racks for the contract period after go live.
- u) Bidder shall be responsible for supply, installation and operation of Anti-virus/HIPS software licenses as per specifications given the RFP for all the servers/VM/Operating System instances shall be supplied under the scope of this RFP. Bidder shall be responsible to supply and install complete solution including underline infrastructure e.g. server, Operating system etc. to run the solution smoothly.

Telecom - Scope of Work

- Phase 1 of Network Connectivity Scope
 - Supply, installation, testing and commissioning of SD-WAN devices and network links for all sites covered under Phase-I. Network reachability of all locations should be done as per the timelines. Location of each site with complete address is mentioned in the RFP.
- Phase 2 of Network Connectivity Scope
 - Supply, installation, testing and commissioning of SD-WAN devices and network links of all the remaining locations as mentioned in the

RFP.

- Network reachability testing at all the sites connecting to DC and DR sites and checking application reachability from respective locations.
-
- a) The Provisioning of MPLS bandwidth location wise is as per Annexure D.
 - b) Internet bandwidth 8 Mbps (1:1) with 1 Gbps of DDoS mitigation at DC and DR sites
 - c) Monitoring of links at all the locations/offices. Call logging, follow-up and escalation for restoration of failed links with respective service providers.
 - d) SLA management of links from all service providers. The monitoring, SLA management of the alternate service provider link(s) is under the scope of the bidder.
 - e) It involves supply, installation, configuration, management, hardening, preventive maintenance, monitoring, software/firmware updation / up-gradation etc. under complete managed services along with MPLS VPN links and enable NOC services. Extension of NOC Dashboard should also be provided to Bank's location for monitoring.
 - f) The communication will be based on Hub and spoke model with DC and DR as Hub locations.
 - g) For each site, two MPLS VPN links needs to be provided from two different operators to achieve link level, path level and network level redundancy (Service provider may take MPLS VPNs from multiple operators for achieving the same). The bidder has to coordinate with the other service provider for installation, configuration and integration of the link. Further, the bidder has to carry out complete management of all the links.

Last mile Links:

- a) The last mile to be provided at DC, DR and Near DR should be on FIBER with redundancy.
- b) The last mile at all other locations can be WIRED/ WIRELESS (RF)/VSAT.
- c) Bidders offering last mile on the following media will be given higher weightage. The preference of last miles for each of the MPLS VPN links at location site is as below:
 - 1 -Wireline Copper/Fibre – Atleast 50% of existing location should have primary link on Fibre/copper

2 -Wireless (RF)/WiMax

3 -VSAT

- d) VSAT links should not be more than 10% of total locations.

Note:

1. *The hand-off at all locations should be on Ethernet*
2. *3G/4G are not considered as last mile for site implementation. However, bank may allow installation of 3G/4G at some locations as backup link under exceptional circumstances where roof top permissions are not available for RF/VSAT delivery. Unmanaged service can be provided for such backup link delivered on 3G/4G (If any)*
3. *VSAT to be provided should support minimum 128 Kbps downstream with burstable to 192 Kbps and 64 Kbps upstream with burstable to 128 Kbps.*

Bandwidth

- a) The location and link wise bandwidth is as per Annexure D
- b) Bidder has to provide details of two links for each site as per Annexure D

CPE Devices

- a) Single SD WAN CPE are required at Branch locations and Dual SDWAN CPE in HA mode will be provided at DC, DR and near DR.
- b) Additionally, the bidder should keep at-least 10 Nos. CPEs/SDWAN equipment at Bank's site viz. HO/RO/BO as suggested by Bank as cold standby for backup for nearby branches.
- c) The bidder should ensure that all the supplied hardware and software for the solution must not be End of Support / End of service and spares/upgrades should be available. In case of any equipment goes End of life from OEM, the service provider has to replace it without any extra cost to the Bank to keep the solution working.
- d) The SDWAN CPE Solution providing OEMs must be listed as 'Leaders', 'Challengers' or 'Visionaries' in Gartner's report "Magic Quadrant for WAN Edge Infrastructure"
- e) SD-WAN solution should employ centrally managed WAN edge devices placed in branch offices to establish logical connections with DC and DR across the physical WAN. These logical connections should create secure paths across multiple WAN connections and carriers, such as Multiprotocol Label Switching (MPLS), LTE architecture.
- f) SD-WAN solutions should allow for load sharing of traffic across multiple WAN connections in an efficient and dynamic fashion that can be based on business and/or application policies.

- g) SD-WAN solution should dramatically simplify the complexity associated with management, configuration and orchestration of WANs.
- h) The SDWAN centralised controller should be hosted within India, in HA mode and should be in different geo-seismic zones.

Management

- a) The ownership, maintenance and upkeep of CPEs and links (supplied by service provider) is the service provider's responsibility
- b) The bidder should provide NMS (hardware and software) tool and configure the same to monitor and manage all the transport media terminated on the CPE. This includes the transport media which the bidder proposes to procure from alternative service providers during the entire period of contract.
- c) The tool should have capability to monitor / manage 500 links (MPLS/Internet etc) during the period of contract
- d) Bidder should submit reports like Uptime, Bandwidth utilization, Link error, latency, etc. on monthly / quarterly basis and as per the Banks requirement. All the locations are to be monitored as per SLA.
- e) Monitoring of links (including third party links procured locally and additions thereof) at all the locations/offices. Call logging, follow up and escalation for restoration of failed links with respective service providers.
- f) SLA management of links from all service providers. The monitoring, SLA management of the alternate service provider link(s) is under the scope of the bidder.
- g) For new locations bidder will not take more than 3 weeks for at-least 1 link commissioning and maximum additional 2 weeks for backup link.

Link Acceptance

- a) "Site Survey, "Installation Certificate" and "Acceptance report for successful commissioning" must be maintained by the selected bidder for future references. The formats would be finalized in consultation with the Bank. This shall be onetime activity.

Uptime Calculation - Telecom

Uptime for each location=[(Total no of Working Hours in Month – downtime hours in Month during working hours) / total number of Working Hours in Month] X100

Working Hours means-

- a. For branches -8AM to 8PM
- b. Sites other than Branches like DC, DR, NDR, Head Office, Remote Data Centre, Haldwani, Information Security Cell, Service Branch Delhi, Regional Offices, NLPs, RTGS Cell, Service Branch Delhi and sites which Bank incorporates later on etc. – 24x7x365

Link Delivery Timelines

The bidder should deliver and commission the links within the timelines for Phase 1 and Phase 2 as mentioned in stipulated time schedule pt. (4.1) from the date of purchase order for all the locations as per Annexure D.

Final Acceptance Test Scope

- Final Acceptance test shall be carried out by the Bank and following shall be checked to ensure project go-live and smooth operation including DC, DR and NDR. Once FAT certificate is issued by Bank, project shall go under Operations and Maintenance phase and selected bidder shall start the Operation and maintenance entire solution as per RFP scope, specifications and conditions.
- Following shall be checked before issuing FAT certificate:
 - Warranty of all supplied and commissioned equipment's
 - Network connectivity and it's reachability from designated locations.
 - Installation, commissioning and integration of all the supplied equipment's as per Scope and specifications of RFP
 - Connectivity with existing SOC and availability of logs generated by various devices to integrate with existing SOC.
 - One successful DR Drill
 - Validation of RTO & RPO as defined in RFP.

6.2.Schedule- I SITC of the ICT Infrastructure for DC and DR

As a way forward, the broad scope of work under this phase will include the following, but is not limited to: Data Centre, is envisioned as the 'Reliable and secure infrastructure services centre for hosting and managing the bank related Infrastructure of The Nainital Bank Ltd. and its constituent departments'. DC is envisaged to establish a robust infrastructure to enable the bank to deliver the services quickly and effectively to its

stakeholders. The proposed Data Centre shall provide the access to the applications & Services to bank employees through Intranet and to the citizens (public facing application) through public Internet. Through such a Shared Service Centre implemented and managed by a competent Implementation Bidder, the individual departments can focus more on the service delivery rather than on the issues surrounding the Infrastructure.

6.3.High level ICT infrastructure architecture:

The following is a list of categories of components that the bidder is expected to supply, install, configure and test.

- a) Computing Infrastructure such as Servers, Operating Systems etc.
- b) Security and networking
- c) Centralized Management and monitoring tools
- d) Near DR setup should be between 5 Km and 25 Km radius from DC site, which include the complete storage replication of DC in sync mode to achieve near Zero RPO.
- e) Disaster management tools
- f) Disaster setup in different seismic zone
- g) Dashboard for bank users
- h) Operations and maintenance for 5 years may be extended further for -2- yrs

The above list is indicative, though the bidder will be required to provide an infrastructure which is scalable and provides for next generation latest technologies. The bidder is free to add any additional components that are deemed necessary for providing the overall solution as a whole. The bidder should also consider the following while proposing the solution:

- a) The bidder should ensure that all the peripherals, accessories, sub-components required for the functionality and completeness of the solution, including but not limited to the devices, equipment, accessories, software, licenses, tools, etc. should also be provisioned according to the requirements of the solution.
- b) The Nainital Bank Ltd. will not be responsible if the bidder has not provisioned for any components, sub-components, assemblies, sub-assemblies as part of bill of material in the bid. The bidder will have to provision to meet the solution requirements, the same at no additional cost and time implications to The Nainital Bank Ltd.

- c) The bidder should ensure there is a 24 x 7 x 365 comprehensive support arrangement for a period of 5 years with all the OEM for respective ICT components.
- d) It is expected that bidder and OEM shall ensure that the equipment/components being supplied by him will be supported for minimum 7 years from date of bid submission. If the same is de-supported by the OEM for any reason whatsoever, the bidder shall replace it with an equivalent or better substitute that is acceptable to Bank without any additional cost to the Bank and without impacting the performance of the solution in any manner whatsoever. Any components, sub-components, assemblies, sub-assemblies (i.e. server, storage, OS) required for installation of Monitoring management, security etc or any other software/management software needed for Data Center ICT infrastructure will be provided by bidder without any additional cost.

Some of the key considerations for designing the Next Generation Data Centre are given below:

6.4. Scalability

- a) The Bidder should propose a scalable infrastructure design at DC, DR and NDR sites so that in future infrastructure can be added for growing needs of Bank.
- b) Modular design of the Data Center is an excellent strategy to address growth without major disruptions.
- c) A scalable Data Center shall easily be expanded or upgraded. Scalability is important because new computing component is constantly being deployed, either to replace legacy component or to support new missions.

6.5. Availability

- a) All components of the data Center must provide adequate redundancy to ensure high availability of the Governance applications and other Data Center services.
- b) Bidder shall design and supply infrastructure in such way that it shall be highly available. It shall be designed to meet the uptime and SLA defined in the scope of RFP.
- c) Designing for availability assumes that systems will fail, and therefore the systems are configured to mask and recover from component or server failures with

minimum application outage.

- d) The bidder shall make the provision for high availability for all the services of the data Center.

However, application availability is the responsibility of the application owner and the bidder cannot be held responsible for any problem related to application and its availability.

6.6. Interoperability

- a) The entire proposed Infrastructure system/ subsystem should be interoperable, in order to support information flow and integration.
- b) Operating systems and storage technologies from several vendors must interact well with each other. These systems should also support the open architecture solutions where information/ data can be ported to any system, whenever desired.

6.7. Cyber Security

- a) The proposed Data Centre, Disaster Recovery Site and NDR must provide an end-to-end security as per RFP scope to protect applications, services, data and the infrastructure from intentional, unintentional or malicious attacks or theft from external (through internet) and internal (through intranet and or physical) hackers/ malicious intent.
- b) Such attacks and theft should be controlled and well supported using next generation cyber security appliances e.g. UTM/Firewalls, IPS, WAF, Authentication systems and infrastructure protection mechanisms.
- c) Proposed DC, DR and NDR sites event log generated from various devices, Operating System etc. shall be made available for integration with existing banks SOC.
- d) Security Team of the Bidder should operate under the guidelines provided by Bank and Designated SOC for governance as and when it would be operational. All Security controls proposed in the RFP should be made available for integration with Bank's existing SoC Setup. Bidder's security team should adhere with the instructions given by Bank's CISO for smooth integration of proposed security tools with the Bank's existing SIEM tool.
- e) Bidder will have to submit an **Undertaking of Information Security as per format given in pt. 5.5.**

6.8. Application sizing requirements

Below is the sizing requirement for various application:

Modules	VM/Server at DC	VM/Server at DC	Physical Core(s)	RAM	Storage	Operating System	Database	Middleware
Production Servers								
CORE Applications								
Database server	2	2	15	116	1250	RHEL	Oracle EE12C RAC & Partitioning, Diag & tuning Pack	NA
Application server	2	2	21	168	120	RHEL	NA	NA
JEE Server	2	2	6	36	100	RHEL	NA	JBOSS EAP
HTTPs Server	2	2	4	22	80	RHEL	NA	JBOSS HTTP
MIS Applications								
Database server	2	2	5	35	1250	RHEL	Oracle EE12C RAC & Partitioning, Diag & tuning Pack	NA
Application server	2	2	8	51	150	RHEL		
JEE & HTTPs Server	1	1	4	22	80	RHEL	NA	JBOSS HTTP & JBOSS EAP
Treasury Applications								
Database server	2	2	3	29	350	RHEL	Oracle EE12C & Partitioning, Diag & tuning Pack	NA
Application server	2	2	3	29	150	RHEL	NA	NA
Channels Applications								

Database server	2	2	5	48	600	RHEL	Oracle EE12C & Partitioning, Diag & tuning Pack	NA
Application server	2	2	4	36	100	RHEL	NA	JBOSS EAP
HTTPs Server	2	2	3	20	80	RHEL	NA	JBOSS HTTP
Alerts Applications								
Database server	2	2	5	39	400	RHEL	Oracle EE12C & Partitioning, Diag & tuning Pack	NA
Application server	2	2	6	36	100	RHEL		JBOSS EAP
Non Production Servers								
Test/Development and training								
Database server	1	-	5	35	100	RHEL	Oracle EE 12C	NA
Application server	1	-	8	51	120	RHEL	NA	NA
JEE Server	1	-	3	20	100	RHEL	NA	JBOSS EAP
HTTPs Server	1	-	3	20	80	RHEL	NA	JBOSS HTTP
UAT/SIT - Core Applications								
Database server	1	-	5	35	100	RHEL	Oracle EE 12C	
Application server	1	-	8	51	120	RHEL	NA	NA
JEE Server	1	-	3	20	100	RHEL	NA	JBOSS EAP
HTTPs Server	1	-	3	20	80	RHEL	NA	JBOSS HTTP

UAT/SIT - Treasury Applications								
Database server	1	-	3	20	350	RHEL	Oracle EE 12C	NA
Application server	1	-	3	20	150	RHEL	NA	NA
UAT/SIT - Channels Applications								
Database server	1	-	3	20	600	RHEL	Oracle EE 12C	NA
Application server	1	-	3	20	100	RHEL	NA	JBOSS EAP
HTTPs Server	1	-	3	20	80	RHEL	NA	JBOSS HTTP
UAT/SIT - Alerts Applications								
Database server	1	-	3	20	400	RHEL	Oracle EE 12C	NA
Application server	1	-	3	20	100	RHEL	0	JBOSS EAP
Performance testing								
Database server	1	-	5	35	100	RHEL	Oracle EE 12C	NA
Application server	1	-	8	51	120	RHEL	NA	NA
JEE Server	1	-	3	20	100	RHEL	NA	JBOSS EAP
HTTPs Server	1	-	3	20	80	RHEL	NA	JBOSS HTTP
Other Servers/VMs								
Virtualization Management server	1	1	16	64	200	NA	NA	NA
Active directory Server	2	1	16	64	200	Win Server 2019 Std Ed.	NA	NA
Delivery Gateway Servers	2	2	8	64	1200	RHEL	NA	NA

Log Collector-1	2	-	12	64	800	Win Server 2019 Std Ed.	NA	NA
Log Collector-2	1	-	4	16	800	RHEL	NA	NA
Log Manager	2	-	16	128	2400	RHEL	NA	NA
DR Log Collector	-	2	8	64	800	Windows 2019 Std Edition	NA	NA

Important Points for sizing considerations and solution:

- All applications Module mentioned in above table supports virtualization, so bidder can group the server to consolidate in limited physical servers. Minimum Bill of Quantity to be proposed by bidder is given in “Minimum Bill of Material” Section in the RFP. Log server at DC & DR has to be physical and should be supplied with requisite Windows OS.
- Oracle Database shall use for application modules mentioned in above table. Proposed Virtualization software must be supported by Oracle as Hard Partitioning to optimize/Limit Oracle database licenses on x86 server platform.
- Bidder must propose additional infrastructure including software licenses e.g. virtualization software, database, operating system etc. to run the Enterprise Backup Software, DR Automation Software, Anti-virus/HIPS, Privileged Identity Management, Database Activity Monitoring, Multi-Factor Authentication, AAA Solution and security management solution or any other solution proposed by bidder as part of the solution. Proposed Infrastructure (Server and storage etc.) must be dedicated for Nainital Bank Ltd. The bidder can use virtualization technology to reduce the infrastructure footprint, if proposed solution by bidder supports virtualization. This has to be provided at DC & DR both sites as per sizing and SLA requirement of respective solution proposed by bidder.
- Servers for Security zones e.g. Militarized Zone and Demilitarized Zone shall be physically separated. Production and non-Production cannot reside on same physical server.
- Oracle database licenses for number of cores mentioned in above table shall be provided by Nainital Bank Ltd. Oracle Database installation, configuration, performance tuning and operations of databases shall be done by the bidder during contract period. If any license like Oracle, SQL required for bidder’s proposed solution that should be provided by the bidder as part of their solution.

6.9. Minimum Bill of material for DC, DR and NDR Site:

S.No	Items	DC Qty	DR Qty	NDR Qty	For Commercial Reference
1	External Physical Firewall - NGFW with UTM (IPS/IDS, AV Gateway, Sandboxing)	2	2	0	OPEX
2	Internal Physical firewall with IPS	2	2	0	OPEX
3	Core Switch 48 port	2	2	0	OPEX
4	Access Switch	4	4	1	OPEX
5	Management Switch	2	2	0	OPEX
6	Staging Switch	2	2	0	OPEX
7	Rack Servers - Server Type 1	7	6	0	CAPEX
8	Rack Servers - Server Type 2	2	2	0	CAPEX
9	Rack Servers - Server Type 3	2	2	0	CAPEX
10	Rack Servers - Server Type 4	3	4	0	CAPEX
11	Rack Servers - Server Type 5	1	0	0	CAPEX
12	Rack Servers - Server Type 6	2	0	0	CAPEX
13	Rack Servers - Server Type 7	1 Lot	1 Lot	0	CAPEX
14	SAN Switch	2	2	1	CAPEX
15	Primary Storage - Unified Storage with SSD 20 TB Usable Capacity	1	1	1	CAPEX
16	Secondary Storage - Storage 80TB Usable for data backup	1	1	0	CAPEX
17	Red Hat Enterprise Linux Server, Unlimited VMs - Latest Version	2	0	0	CAPEX
18	Red Hat Enterprise Linux Server with High-Availability, Upto 2 VM's -Latest Version	20	18	0	CAPEX
19	Microsoft Windows Operating System 2-Core Std Licenses for Server Type - 4	16	8	0	CAPEX
20	Microsoft Active directory CAL License	1000	0	0	CAPEX
21	Microsoft Windows Operating System 2 Core Std Licenses for Server Type - 6	36	0	0	CAPEX
22	Microsoft Windows Operating System 2 Core Std Licenses for Server Type - 4	0	16	0	CAPEX
23	Operating System License, Patch Management and Storage etc. for Server Type 7	1 Lot	1 Lot	0	CAPEX
24	Virtualization Software Latest version	12	10	0	CAPEX
25	Centralized Management for Virtualization software Latest Version	1	1	0	CAPEX
26	Oracle Virtual Machine Latest version (Server Type - 1 & Type 3)	5	4	0	CAPEX
27	Enterprise Class Backup Software	1 Lot	0	0	CAPEX

28	DR Automation Software Solution	0	1 Lot	0	OPEX
29	JBoss Enterprise Application Platform	51 Cores	0	0	CAPEX
30	JBoss Web Server	30 Cores	0	0	CAPEX
31	Cross Connect of 100 Mbps	1	1	1	OPEX
32	Infrastructure Hosting Services Racks	3	3	1	OPEX
33	Managed Services and ITSM Software for proposed solution	1 lot	1 lot	1 lot	OPEX
34	Antivirus / Host IPS Solution (for all Physical and virtual servers Proposed)	1 lot	1 Lot	0	OPEX
35	End Point Security	1500	0	0	OPEX
36	Privileged Identity Management	20	0	0	OPEX
37	Database Activity Monitoring	10	10	0	OPEX
38	Multi-Factor Authentication with dedicated Solution in High- availability	1020	0	0	OPEX
39	Vulnerability Assessment Service	20	0	0	OPEX
40	Penetration Testing Service	10	0	0	OPEX
41	Server Load Balancer with Web Application Firewall	2	2	0	OPEX
42	DDOS 1Gbps Mitigation at ILL	1	1	0	OPEX
43	AAA Solution	1	0	0	OPEX
44	Tape Library	1	0	0	CAPEX

6.10 Schedule II: Operation and Maintenance Services

The following is the summary of operations and maintenance services to be provided by the bidder. It should be noted that the activities performed by the bidder will be under the supervision of THE NAINITAL BANK LTD. Bidder has to provide the managed services for Data Center operation and maintenance on or before the date of final acceptance of the solution.

- a) The bidder shall provide comprehensive support to THE NAINITAL BANK LTD. on a 24 x 7 x 365 basis to ensure an uptime as per SLA defined under point no. 4.5, 4.6, 4.7 for the ICT infrastructure solution at the Data Centre in accordance with the Service Level Agreement mentioned as part of this tender.
- b) The bidder shall commit to provide all necessary manpower resources to resolve any issues/incidents and carry out required changes, optimizations and modification.
- c) The bidder shall assign manpower resources on a 24 x 7 x 365 basis to diagnose,

troubleshoot and resolve issues related to the Data Centre services. The support staff should possess capability for supporting the equipment and components proposed, but not limited to undertaking preventive and break-fix maintenance, troubleshooting, resolving problems, tuning, etc. The bidder shall also provide for necessary onsite and offsite support to ensure continuity of operations for THE NAINITAL BANK LTD.

- d) The bidder shall provide comprehensive technical support services for all the hardware and software proposed for the entire period of the contract. The technical support should include all the upgrades, updates and patches that are released by the respective OEMs during the period of contract.
- e) The bidder shall provide comprehensive support on a 24 x 7 x 365 basis during entire contract period (including extended contract period, if any) from the date of Installation of all ICT infrastructure provided as part of scope of this tender.
- f) Technical team shall coordinate with Bank and provide resolution as per SLA for the tickets raised for supplied ICT infrastructure under the scope of this RFP. Bidder shall provide the trainings required to handle different tools/process like Ticketing, ITSM tool etc.

Technical Support

The bidder has to provide a dedicated onsite resource at location decided by Bank during bank's working hours for co-ordination with technical team of the selected bidders and Nainital Bank Ltd. Deputed resource will do the following activities:

- a) Log issues / complaints related to ICT infrastructure at the Data Centre and issue an ID number against the issue / complaint.
- b) Assign severity level to each issue / complaint so as to maintain categorization and differentiate the criticality of the incident via the priority levels, severity levels and impact levels
- c) Track each issue / complaint to resolution
- d) Escalate the issues / complaints, to BANK Officials if necessary as per the escalation matrix defined in discussion with BANK.
- e) Analyze the issue / complaint statistics and bidder's SLA.
- f) Should provision for all necessary channels for reporting issues to technical team. The incident reporting channels will be following:

- i. Email

- ii. Telephone
- iii. Web Based

System Maintenance and Management

Certain minimum deliverables sought from the bidder with regard to System Maintenance and Management are provided below: -

- a) The bidder shall be responsible for tasks including but not limited to setting up servers, configuring and apportioning storage space, account management, performing periodic backup of data and automating reporting tasks, and executing hardware and software updates when necessary. It should be noted that the activities performed by the bidder will be under the supervision of THE NAINITAL BANK LTD.
- b) The bidder shall provide skilled and experienced manpower resources to administer and manage the entire ICT Infrastructure solution at the THE NAINITAL BANK LTD. Data Centre and DR.
- c) On an ongoing basis, the bidder shall be responsible for troubleshooting issues in the ICT infrastructure solution to determine the areas where fixes are required and ensuring resolution of the same.
- d) The bidder shall be responsible for identification, diagnosis and resolution of problem areas pertaining to the ICT Infrastructure and maintaining the defined SLA levels.
- e) The bidder shall implement and maintain standard operating procedures for the maintenance of the ICT infrastructure based on the policies formulated in discussion with THE NAINITAL BANK LTD. and based on the industry best practices / frameworks. The bidder shall also create and maintain adequate documentation / checklists for the same.
- f) The bidder shall be responsible for managing the user names, roles and passwords of all the relevant subsystems, including, but not limited to servers, other devices, etc.
- g) The bidder shall be responsible for management of passwords for all relevant components and devices under its purview and implement a password change mechanism in accordance with the security policy formulated in discussion with THE NAINITAL BANK LTD. and based on the industry best practices / frameworks like ISO 27001, ISO 20000, ISO 22301 etc.
- h) The administrators will also be required to have experience in latest technologies

necessary to support the bill of material and functions.

6.11 System Administration

Certain minimum deliverables sought from the bidder with regards to System Administration are provided below: -

- a) 24*7*365 monitoring and management of the servers in the Data Center.
- b) The bidder shall ensure proper configuration of server parameters. The bidder shall be the single point of accountability for all hardware maintenance and support the ICT infrastructure at the Data Centre. It should be noted that the activities performed by the bidder will be under the supervision of THE NAINITAL BANK LTD.
- c) The bidder shall be responsible for Operating system administration, including but not limited to management of users, processes, preventive maintenance and management of upgrades including updates, upgrades and patches (patch management) to ensure that the system is properly updated.
- d) The bidder shall also be responsible for installation and re-installation in the event of system crash/failures.
- e) The bidder shall appoint system administrators to regularly monitor and maintain a log of the monitored servers to ensure their availability to THE NAINITAL BANK LTD. at all times.
- f) The bidder managed service team will ensure that the infrastructure (servers, OS, DB, storage, network & network devices etc) are integrated with the event logging/SIEM infrastructure of the Bank.
- g) The system administrators should adopt a defined process for change and configuration management in the areas including, but not limited to, changes in servers, operating system, applying patches, etc.
- h) The system administrators should provide hardening of servers in line with the defined security policies
- i) The system administrators should provide integration on all supported servers, data storage systems etc.
- j) The system administrators should provide directory services such as local LDAP/AD services and DNS services and user support on all supported servers,

data storage systems etc.

- k) The system administrators will be required to trouble shoot problems with web services, application software, desktop/server relationship issues and overall aspects of a server environment like managing and monitoring server configuration, performance and activity of all servers.
- l) Documentation regarding configuration of all servers, IT Infrastructure etc.
- m) The system administrators shall be responsible for managing the trouble tickets, diagnosis of the problems, reporting, managing escalation, and ensuring rectification of server problems as prescribed in *Service Level Agreement*.
- n) The administrators will also be required to have experience in technologies relevant to provision the existing and applicable infrastructure on a requirement based scenario.

6.12 Storage Administration

Certain minimum deliverables sought from the bidder with regards to Storage Administration are provided below: -

- a) The bidder shall be responsible for the management of the storage solution including, but not limited to, storage management policy, configuration and management of disk array, SAN fabric / switches, tape library, etc. It should be noted that the activities performed by the bidder will be under the supervision of THE NAINITAL BANK LTD.
- b) The bidder shall be responsible for storage management, including but not limited to management of space, SAN volumes, RAID configuration, LUN, zone, security, business continuity volumes, performance, etc
- c) THE NAINITAL BANK LTD. would additionally remotely manage the storage system and components and appropriate setup should be provided by the bidder
- d) The storage administrator will be required to identify parameters including but not limited to key resources in the storage solution, interconnects between key resources in the storage solution, health of key resources, connectivity and access rights to storage volumes and the zones being enforced in the storage solution.
- e) The storage administrator will be required to create/delete, enable/disable zones in the storage solution

- f) The storage administrator will be required to create/delete/modify storage volumes in the storage solution
- g) The storage administrator will be required to create/delete, enable/disable connectivity and access rights to storage volumes in the storage solution
- h) To facilitate scalability of solution wherever required.
- i) The administrators will also be required to have experience in technologies relevant to provision the existing and applicable infrastructure on a requirement based scenario

6.13 Database Administration

Under the supervision/ guidance of THE NAINITAL BANK LTD. Bank's DBA/officials, the bidder shall be responsible for management and monitoring database activity and its performance.

- The bidder shall be responsible to perform physical administrative functions such as reorganizing the database to improve performance. Bidder should be in sync with the application provider for installing, integrating, managing, monitoring databases to ensure that the application and interfaces should be functional 24x7.
- The bidder shall be responsible for testing and installing new database software releases, if any.
- The bidder shall be responsible for Database Management, Monitoring, performance tuning, installing database patches etc. during the contract period for all the databases instances under the scope of this RFP.

6.14 Backup / Restore

The bidder shall be responsible for backup of storage as per the policies of THE NAINITAL BANK LTD. at the Data Centre. These policies would be discussed with the bidder at the time of installation and configuration. It should be noted that the activities performed by the bidder will be under the supervision of THE NAINITAL BANK LTD.

- a) The bidder shall be responsible for monitoring and enhancing the performance of scheduled backups, schedule regular testing of backups and ensuring adherence to related retention policies
- b) The bidder shall be responsible for prompt execution of on-demand backups of volumes and files whenever required by THE NAINITAL BANK LTD. or in case

of upgrades and configuration changes to the system.

- c) The bidder shall be responsible for real-time monitoring, log maintenance and reporting of backup status on a regular basis. The bidder shall appoint administrators to ensure prompt problem resolution in case of failures in the backup processes.
- d) The administrators shall undertake media management tasks, including, but not limited to, tagging, cross-referencing, storing, logging, testing.
- e) The bidder shall also provide a 24 x 7 support for file and volume restoration requests at the Data Centre.

6.15 Network monitoring

The bidder shall provide services for management of network environment to maintain performance at optimum levels on a 24 x 7 basis. It should be noted that the activities performed by the bidder will be under the supervision of THE NAINITAL BANK LTD.

- a) The bidder shall be responsible for monitoring and administering the network within the Data Centre up to the integration points with WAN. The bidder will be required to provide network related services for routers, switches, load balancer services etc.
- b) The bidder shall be responsible for creating and modifying VLAN, assignment of ports to appropriate applications and segmentation of traffic.
- f) The bidder shall co-ordinate with the Data Centre Site Preparation bidder in case of break fix maintenance of the LAN cabling or maintenance work requiring civil work.
- g) Access of NOC dashboard shall be provided to the Bank's preferred location for better monitoring.

6.16 Next generation firewall - Monitoring and Management

Few Activities to manage NGFW, but not limited to:

- I. Traffic Profiling
- II. Define Alert levels and Incident response level
- III. Root cause analysis
- IV. Technical support
- V. Monitor NGFW for 24*7 availability
- VI. Restore NGFW availability
- VII. Determine Intrusion occurrence, zero-day attack management, etc.

- VIII. Upgrade of vendor provided signatures
- IX. Provide security event correlation
- X. Regular Monitoring of the attack logging rules' logs
- XI. Regular Monitoring of the generic deny rules' logs
- XII. Regular Monitoring of the attack bandwidth utilization
- XIII. Network attacks and serious attack attempts analysis
- XIV. Uncovered new vulnerabilities assessment
- XV. Propose corrective and preventive actions.
- XVI. Monitoring and subscribing to external network security information in order to evaluate new attacks and propose preventive steps.
- XVII. Provide maintenance and upgrade of service component software.
- XVIII. Regular Reports and provide reporting of intrusion and actions, web based access.
- XIX. Incidence response
- XX. Prevent all known/zero day attacks
- XXI. Filter out IP and TCP illegal packet types
- XXII. Design and Configuring IPS services in response to Flooding limits (per source, destination and intensity)

6.17 Other Support Services

- a) The bidder shall also maintain other site specific documentation such as network diagrams, manuals, license copies in hard and soft formats.
- b) The bidder shall also update changes to documents like changes in IP addresses, changes to layout of machines, addition to network, change in network layout, etc.
- c) The bidder shall ensure implementation and enforcement of procedures, policies and guidelines like Security policy, Network access policy, Anti-virus policy, etc. as formulated in discussion with THE NAINITAL BANK LTD.
- d) Upon prior information and authorization, Bidder shall provide the access of DC DR as and when required by regulator/CSITE/Government agencies/Bank authorized personnel/auditor etc. for compliance.
- e) Bidder shall be responsible to respond all the queries, based upon DC DR infra and the laid down security controls as and when desired by the Bank. Any deviation from the regulator's laid down procedure and guidelines w.r.t IT Security Policy and DC DR infra, Bidder should give priority and make provision for the same without fail.

7. Annexure A: Hardware/Software Technical Compliance

Nainital Bank Ltd is providing minimum technical specifications of items to be procured as part of scope of this RFP. Bidder can propose of same or higher specification of all or any of the product to meet the overall RFP objective, functional requirement or integration requirement of entire solution. Bidder has to provide supporting document reference alongwith its page number in remarks column of technical specifications table of each item. Bidder must follow the same format for technical compliance.

7.1 Server Sizing

S.No	Components	Minimum Specifications	Qty in DC	Qty in DR
1	Server Type 1 (Core Applications)	2x Intel® Xeon® Gold Intel 6246 Processor (12 core, 3.3 Ghz), 192 Gb RAM, 2 x 1.2 TB 12G SAS 10K RPM, 4 nos 10G Base-T Network Ports , 2x Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)	7	6
2	Server Type 2 (Core and MIS Application Servers)	2x INTEL® XEON® GOLD 6248 PROCESSOR (20 core, 2.50 GHz), 320 Gb RAM, 2 x 1.2 TB 12G SAS 10K RPM , 4 nos 10G Base-T Network Ports, 2 x Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)	2	2
3	Server Type 3 (Database Servers)	2x Intel® Xeon® Gold 6234 Processor (8 core, 3.3 Ghz), 192 Gb RAM, 2 x 1.2 TB 12G SAS 10K RPM , 4 nos 10G Base-T Network Ports, 2 x Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)	2	2
4	Server Type 4 (Management & AD Servers, DR Log Server)	1x Intel® Xeon® Gold Intel® Xeon® Gold 6242 (16 Core, 2.8GHz) 128GB RAM, 2 x 1.2 TB 12G SAS 10K RPM , 4 nos 10G Base-T Network Ports, Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)	3	4
5	Server Type 5 (T&D, UAT/SIT, Training and Testing App & HTTP Servers)	2x INTEL® XEON® GOLD 6252 Processor, (24 Core, 2.1GHz), 384 Gb RAM, 4 x 1.2 TB 12G SAS 10K RPM , 4 nos 10G Base-T Network Ports, Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)	1	0
6	Server Type 6 (DC Log Server)	2x Intel® Xeon® Gold 6240 Processor (18 core, 2.6 Ghz), 256 Gb RAM, 4 x 3.8TB SSD/Flash Drives , 4 nos 10G Base-T Network Ports, Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)	2	0
7	Server Type 7 (Servers for management,	INTEL® XEON® GOLD 6248 PROCESSOR (20 core, 2.50 GHz), 320 Gb RAM, 2 x 1.2 TB 12G SAS 10K RPM , 4 nos 10G Base-T	As per Bidder solution	As per Bidder solution

DRM, HIPS, Security tools etc. deployment)	Network Ports, 2 x Dual Port 16Gb Fibre Channel HBA, Redundant Power Supply (Patch Cords, Fibre Cords etc. to connect with switches)		
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7.2. Rack Server Specifications

S.r.	Parameter	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Server Make and Model	Bidder to specify proposed Server Make and Model		
2	Processor	AS per Sizing table mentioned above		
3	Chipset	Latest Intel® Chipset supporting above Processor		
4	Memory	AS per Sizing table mentioned		
5	PCI/ PCI Express Slots	Min 1 PCI-e (Express) 16 x free slot after catering all the requirements		
6	Graphics	Integrated with Motherboard/ ChipSet		
7	HDD	AS per Sizing table mentioned		
8	HDD controller	SAS/SATA/SSD Raid controller capable of providing RAID 0, 1, 5 configurations.		
9	FC Port	AS per Sizing table mentioned		
10	Network ports	AS per Sizing table mentioned		
11	I/O Ports	AS per Sizing table mentioned		
12	Power Supply	Dual, Hot-swap, Redundant Power Supply		
13	Cooling Fans	Redundant Hot Pluggable Fans.		
14	Server Management	Should provide notification of critical component failure alerts like CPU, Memory, HDD, Raid controllers etc.		
15		Should support Remote management features		
16		Should support remote OS installation, recovery, upgradation and remote firmware upgradation/ recovery		
17		Should be able to perform comprehensive system data collection and enable users to quickly produce detailed inventory reports for managed devices		
18		Must have a real time Virtual KVM functionality		
19	Update Provisioning	Essential tools, drivers, agents to setup, deploy and maintain the server should be embedded with the server		

20	Security	a) The server should provide cryptographic firmware updates b) Server should provide Anti-counterfeit and hardware policy based security C) The server should provide Hardware root of trust		
21	Form Factor	Server should be Rack mountable (Standard 19") with maximum 2 U form factor		
22	Warranty	5 Years OEM Warranty		

7.3. Core Switch

Sr.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	The switch should have 48x10Gig ports/slots, populated with 4 nos. of 10 Gig Single Mode transceiver & 12 nos. of 10 Gig multimode transceivers. Should have minimum 20GB DRAM and 40GB Flash.		
2	The switch should support minimum 2Tbps bandwidth		
3	The switch should support 802.1d Spanning Tree , 802.1w RSTP , 802.1s (MSTP)		
4	The switch should support IEEE 802.3ad Link Aggregation Control Protocol (LACP) supporting upto 8 groups and 8 ports per group		
5	The switch should support atleast 1000 VLANs simultaneously		
6	The switch should support Port-based and 802.1Q tag-based VLANs, Private VLAN, etc.		
7	The switch should support Jumbo frames of 9000 bytes		
8	The switch should support 16000 MAC addresses		
9	IPv4 and IPv6 Static Route and multicast routing.		
10	The switch should support layer 3 interface on physical port, LAG, VLAN interface		
11	The switch should support Dual IPv6 and IPv4 stack		
12	The Switch should support IPv4 DHCP Server serving IP addresses for multiple DHCP pools/scopes		
13	The switch should Support DHCP options		
14	Dynamic Routing protocol support like OSPF, VXLAN, BGP, EVPN, ISIS or MPLS, VRFs, multicast protocols - PIM-SM, SSM, MSDP		

15	The switch should provides Layer 2 isolation between devices in the same VLAN, even on multiple uplinks.		
16	Should have port security feature		
17	The switch should support atleast 4 hardware queues		
18	The switch should support scheduling based on (i) Strict priority and weighted round-robin and (ii) DSCP and class of service (802.1p/CoS)		
19	The definition of class of service should be Port based; 802.1p VLAN priority based; IPv4 and IPv6; IP precedence/ type of service (ToS)/DSCP based; Differentiated Services (DiffServ);		
20	The switch should allow rate limiting based on Ingress policer; egress shaping and rate control; per VLAN, per port, and flow based.		
21	The QoS capabilities should be hardware based		
22	The switch should be configurable through command line interface		
23	The switch should support SNMP versions 1, 2c, and 3 with support for traps and SNMP version 3 user-based security model		
24	Should have SPAN or equivalent feature		
25	The following features should also be supported Traceroute; multiple/single IP management; SSH; RADIUS; port mirroring; TFTP upgrade; DHCP client; cable diagnostics; ping; syslog.		
26	The series or family covering proposed switch should be Common Criteria EAL3 or NDPP certified.		
27	Should have redundant power supply.		
28	5 Years OEM Warranty		
29	The proposed switches should be part of Gartner Leader Quadrant for DC Networking for last 2 years		
30	Switch and optics should be from the same OEM		
31	The switch must have minimum 40mb buffer from day 1		
32	The switch platform should support "MACSec" (802.1AE) in hardware		
33	Switch support MPLS segment routing.		

7.4. Access, Staging Switch

Sr.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Rack Mountable: Mountable in standard 19 inch rack. Switch should be supplied 24 port copper 10G and 2nos. 10G multimode fibre ports for uplink.		

2	1 x console port for CLI based configuration		
3	The switch should support minimum 1Tbps bandwidth		
4	Should have IEEE 802.3ad		
5	Should support Layer3 protocols: BGP, VXLAN, OSPF, RIP, Static routes, VRFs multicast protocols PIM-SM, SSM, MSDP		
6	Support Port Trunking		
7	Link Aggregation		
8	Minimum 1000 VLAN		
9	MAC Address security and should support minimum 5000 MAC addresses		
10	Easier Software upgrades through network, using FTP, TFTP, etc.		
11	Accessibility using Telnet, SSH, Console access		
12	Configuration management through CLI, GUI based software utility and using web interfaces. GUI tools shall be provided		
13	Support for Syslog Server required		
14	Switch should CPU utilization monitoring and Port description		
15	Static Routing IPv4 & IPv6		
16	OSPF v2, OSPFv3		
17	VRRP or equivalent		
18	Spanning tree protocol		
19	IPv4 & IPv6 with full functionality		
20	Should have support for RADIUS/TACACS+/equivalent		
21	MAC address based port level filtering		
22	IEEE 802.1d Spanning-Tree Protocol		
23	IEEE 802.1Q VLAN		
24	IEEE 802.1s		
25	IEEE 802.1w		
26	The switches should support QoS classification of incoming packets for QoS flows based on Layer 2, Layer 3, and Layer 4 fields.		
27	Should have internal redundant power supplies		
28	All necessary power cords, adapters, data cables, connectors, CDs, manuals, brackets accessories, wire managers, etc. should be provided to install switch in the Data Centre.		

29	5 Years OEM Warranty		
30	The proposed switches should be part of Gartner Leader Quadrant for DC Networking for last 2 years		
31	Switch and optics should be from the same OEM		
32	The switch must have minimum 40mb buffer from day 1		
33	The switch platform should support "MACSec" (802.1AE) in hardware		

7.5. Management Switch

Sr	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Rack Mountable: Mountable in standard 19 inch rack, minimum 48 port copper 1G and 2nos. 10G multimode fibre ports for uplink.		
2	1 x console port for CLI based configuration		
3	The switch should support minimum 1Tbps bandwidth		
4	Should have IEEE 802.3ad		
5	Should support Layer3 protocols: BGP, VXLAN, OSPF, RIP, Static routes, VRFs multicast protocols PIM-SM, SSM, MSDP		
6	Support Port Trunking		
7	Link Aggregation		
8	Minimum 1000 VLAN		
9	MAC Address security and should support minimum 5000 MAC addresses		
10	Easier Software upgrades through network, using FTP, TFTP, etc.		
11	Accessibility using Telnet, SSH, Console access		
12	Configuration management through CLI, GUI based software utility and using web interfaces. GUI tools shall be provided		
13	Support for Syslog Server required		
14	Switch should CPU utilization monitoring and Port description		
15	Static Routing IPv4 & IPv6		
16	OSPF v2, OSPFv3		
17	VRRP or equivalent		

18	Spanning tree protocol		
19	IPv4 & IPv6 with full functionality		
20	Should have support for RADIUS/TACACS+/equivalent		
21	MAC address based port level filtering		
22	IEEE 802.1d Spanning-Tree Protocol		
23	IEEE 802.1Q VLAN		
24	IEEE 802.1s		
25	IEEE 802.1w		
26	The switches should support QoS classification of incoming packets for QoS flows based on Layer 2, Layer 3, and Layer 4 fields.		
27	Should have internal redundant power supplies		
28	All necessary power cords, adapters, data cables, connectors, CDs, manuals, brackets accessories, wire managers, etc. should be provided to install switch in the Data Centre.		
29	5 Years OEM Warranty		

7.6. Primary Storage

Sr	Parameter	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Brand	Proposed array should feature in leaders quadrant of Gartner's Magic Quadrant for last 3 years for All Flash Arrays	-	
2	Storage Architecture	Proposed storage must be a All Flash Array unified storage system supporting both Scale-up and Scale-out technology. Designed to take advantage of the Flash/SSD for high performance, reliability, energy efficiency and consistent performance.	-	
3	Storage Controller	Storage should be propose with at least dual redundant, hot and swappable controllers for high-availability. Proposed array should be non disruptively scalable to 8 controllers.	-	
4	Protocols Supported	The storage should a true unified storage configured with iSCSI, FC, NFS (NFSv3, NFSv4, NFSv4.1) SMB (SMB2 & SMB3) and pNFS protocols for use with different applications and should support the maximum capacity offered by the storage system. Any additional capacity hardware/software required for the	-	

		same should be quoted on day one for entire scalable capacity.		
5	Storage Media	Offered storage shall support various SSD capacities drives from 960GB, 3.8TB, 7.6TB, 15.3TB and 30.6TB SSD drives.	-	
6	Global Hot Spare	Proposed storage should support global hot spare or hot space for two disk failure simultaneously. The proposed storage should have No Single Point of Failure and support all hot swappable components. The Storage array should guarantee no data loss in the event of a power failure in the data center and a component failure in the storage.	-	
7	Storage Capacity	The proposed storage shall be supplied with 20TB usable capacity on RAID6 or equivalent using SSD/Flash	-	
8	Scalability	Proposed All Flash Array should support minimum 130 drives and should scale up to 2000 Drives by adding controllers	-	
9	High Availability	The unified storage system must be configured to continuously serve data in event of any controller failure. In addition to this, it must also be possible to withstand failure of any 2 disks & 3 disks. System should offer capability for 2 disks and 3 disks data parity protection. if the vendor doesn't support 3 disk data protection then they should provision a hot spare for every 10 disks.	-	
10	Frontend Ports	The proposed storage should be configured with minimum 4 nos of 10Gbps SFP+ ports & 4X16Gbps FC ports.	-	
11	Backend Ports	Backend ports should be minimum 4 x 12Gbps SAS Ports	-	
12	Storage Efficiency	Proposed array should support both inline zero block detection, inline deduplication, inline compression.	-	
13	Storage Performance	The proposed storage should support 150K IOPS with 70:30 Read/Write ratio for 8KB Block size with response time avg 1ms and should scale upto 200K IOPS with in proposed solution. The vendor needs to submit undertaking from OEM to this effect . The	-	

		proposed performance should be achieved with deduplication/compression turned on.		
14	Thin Provisioning	The proposed storage should natively support thin provisioning for space efficiency. The license for usable storage capacity to be included.	-	
15	Performance Monitoring Tool	Storage system should be provided with the performance management and monitoring software and the same should be able to generate performance reports with respect to disk I/O, volume utilization, bandwidth, response time etc. The proposed storage should support GUI and CLI based management. The license for entire capacity to be included. The performance monitoring is required to support real time as well as historical performance of the array.	-	
16	Disaster Recovery	Proposed solution should support 3 way DR and required licenses have to be supplied	-	
17	Replication	The solution shall support replication in one to many and many-to-one mode. The replication solution on storage shall support failover to BCP/DR storage and failback as and when required using DC, DR and NDR	-	
18	Encryption	Proposed storage should support data encryption at rest at volume level as well as should support data encryption in flight when replicating. License or hardware if required to enable encryption shall be supplied.	-	
19	WAN optimization	Proposed solution should support bandwidth optimization features for reducing WAN bandwidth requirement deduplication, compression and encryption. Bidders not having native bandwidth optimization feature should include additional WAN optimization devices	-	
20	Firmware upgrades	Firmware should be upgradeable for functionality improvement and enhancements. Must support non-disruptive upgrade.	-	
21	OS Support	Microsoft Windows 2000, Windows Server 2003, Windows Server 2008, Windows Server	-	

		2012, Windows Server 2016, Linux, Oracle Solaris, AIX, HP-UX, Mac OS, VMware, ESX		
22	Storage License	Proposed array should include license for Sync and Async Replication, Thin provisioning, Snapshots, Clones. Also should include application aware backup for Oracle, SQL, SAP, Exchange, SharePoint, VMware, Hyper-V etc. All the required or necessary licenses must be perpetual and provided for the usable capacity of the storage including license for management module.	-	
23	Warranty	The Hardware and software quoted should have 5 years warranty and should have OEM support	-	

7.7. Secondary Storage

Secondary Storage Specifications				
Sr.	Parameter	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Storage Quality Certification	The Storage OEM should be established in the Gartner Leader Quadrant for the last 3 years	-	-
2	Storage Controller	The Storage system must have at least two controllers running in dual active (active-active) mode with automatic failover to each other in case if one controller fails	-	-
3	Cache required	The system should have minimum 64 GB cache memory across the two controllers with an ability to protect data on cache if there is a controller failure or power outage. The cache on the storage should have 72hrs or more battery backup (OR) should have de-staging capability to either flash/disk.	-	
4	Drive Support	The proposed system should not exceed the disk size of 4TB per disk and must support intermixing of SSD , SAS and SATA drives to meet the capacity and performance requirements of the applications.	-	-
5	Protocols	The storage should be configured with FCP & iSCSI protocols. Any hardware/software required for this functionality shall be supplied along with it in No Single Point Of Failure mode.	-	-
6	RAID configuration	Should support various RAID levels (1,5,6) or equivalent	-	-

7	Storage Capacity	80 TB usable capacity should be configured with NL-SAS/SATA drives on RAID 6. The storage should provision with at least 2 host spares. Storage should be scalable upto 200TB usable capacity using NL-SAS/SATA drives.		-
8	Drive Support	The system must support intermixing of SSD , SAS and NL-SAS drives to meet the capacity and performance requirements of the applications. The system must support a minimum of a 170 disks per two controllers for scalability purpose.	-	-
9	Front-End and Backend connectivity	The proposed storage system should have minimum, 2 numbers of 12 Gbps backend SAS ports, and 4 x 16Gbps FC and 4x10Gb Ethernet Ports	-	-
10	Rack Mountable	The storage should be supplied with rack mount kit. All the necessary patch cords (Ethernet and Fiber) shall be provided and installed by the vendor.	-	-
11	Storage functionality	The storage shall have the ability to expand LUNS/Volumes on the storage online and instantly.	-	-
		The storage shall have the ability to create logical volumes without physical capacity being available or in other words system should allow over-provisioning of the capacity. The license required for the same shall be supplied for the maximum supported capacity of the offered storage model.	-	-
		The required number hard disks for parity & spares, should be provided exclusively of the usable capacity mentioned. At least 2% of the usable capacity requested on each tier should be configured as spare drives with the subsequent disk types	-	-
		System should have redundant hot swappable components like controllers, disks, power supplies, fans etc.	-	-
12	Point-in-times images	The storage should have the requisite licenses to create point-in-time snapshots. The storage should support minimum 512 snapshots per dual controller system. The license proposed should be for the complete supported capacity of the system.	-	-
		The system should support instant creation of clones of active data	-	-

13	Management	Easy to use Single GUI based and web enabled administration interface for configuration, storage management, performance analysis tools and replication management	-	-
14	OS support	Support for industry-leading Operating System platforms including: LINUX, Microsoft Windows, HP-UX, SUN Solaris, IBM-AIX, etc. It shall support connecting hosts over iSCSI or FC and shall be supplied with any Multipathing software, if required, with the solution.	-	-
15	Warranty Support	The Hardware and software quoted should have 5 years, 24/7 support along with upgrade and updates.	-	-

7.8. Tape Library

Sr	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Architecture & Consumables: The Tape Library Shall be offered with Minimum of Two LTO-8 FC tape drive and minimum of 25 slots along with 10 LTO8 DATA & 2 Cleaning Cartridges with Redundant Power Supply.		
2	Data Transfer Rate: Offered LTO-8 drive shall support 300MB/sec in Native mode.		
3	Future Scalability: Tape Library shall be scalable to FOUR number of LTO-8 drives either in the same frame or by stacking of Expansion modules & Drives		
4	Encryption Support: The offered tape library must support encryption and the encrypted keys should be managed by the ISV or the Tape library i.e. to keep the keys safe and secure, The Encryption keys management must be with Industry Standard methods either AME (Application managed) or LME (Library Managed).		
5	Connectivity: Offered Tape Library shall provide 8Gbps native FC connectivity to SAN switch or the FC HBA of the backup Server as per the Bidders Solution		
6	Management: Tape Library shall provide web based remote management.		
7	It should be compatible with the offered backup software and should be integrated with the solution to provide seamless backup for entire environment.		
8	Other Features: 1]Tape Library shall support GUI.		

2] Shall be rack mountable.		
3] Warranty with Back to back Onsite Warranty from OEM.		
4] Tape library shall support Barcode reader Min. 3 configurable Mail slots		

7.9. SAN switch

Sr	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Make & Model of the proposed SAN switches		
2	The SAN Switch shall be Fibre Channel based SAN Switch and shall be supplied with 24 ports populated with 32 Gbps speed.		
3	Switch SFP's should support the 4/8/16/32 Gbps of host connection.		
4	Should support incremental activation of ports on demand		
5	Should support the following minimum type of ports: E_Port, F_Port, M_Port (Mirror Port), NPIV-enabled N Port		
6	The form factor should not be greater than 1RU		
7	Should support the following minimum media types: SFP+, LC Connector and multiple variants industry standard connectors. Switch & optics must be from same OEM.		
8	The SAN Switch solution with redundant switches should be highly available with no single point of failure		
9	Switch should support non-disruptive code/Firmware upgrade		
10	The switch should support role based administration by allowing different administrator different access rights to Switches		
11	Should have Hot Plug Redundant Power Supplies and cooling fans		
12	Should have Auto Sensing of ports		
13	Must support heterogeneous hosts and operating systems		
14	Must have Advance Zoning feature		
15	The offered SAN Switch must support leading SAN boxes, SAN Switches and Tape libraries including but not limited to EMC, Hitachi, IBM, HP, Dell, Cisco etc.		
16	Should have centralized monitoring and control features.		
17	The Product shall support any combination of Shortwave, Long wave optical media on a single switch.		
18	The vendor has to supply all necessary. Components / parts / license to meet the requirements at no extra cost to the Bank		
19	The SAN Switch should have capability to interface with HBA of different makes and model from multiple OEM, supporting multiple operating systems including but not limited to HP-UX, IBM AIX, Red Hat Linux MS-Windows Solaris etc		
20	Should support the Inter switch link (ISL) & necessary licenses need to be provision as a part of scope.		

21	Integration: Integration to be adequately done with SAN switch / SAN Storage / Backup Server / blades/ Tape Libraries.		
22	Warranty - 5 years OEM warranty Support		
23	The switch should support REST API based programming capabilities.		

7.10. DRM Software

DR Automation Software Specifications			
S. No.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	The proposed solution must offer a workflow based management & monitoring capability for the real time monitoring of a DR solution parameters like RPO (at DB level), RTO, replication status and should provide alerts on any deviations.		
2	The proposed solution should provide a single dashboard to track DR Readiness status of all the applications under DR.		
3	The proposed solution should be capable of reporting important health parameters like disk space, password changes, file addition/deletion etc. to ensure DR readiness and facilitate policy based actions for events with ability to cancel out polar events.		
4	The proposed should have inbuilt ready to use library of recovery automation action for heterogeneous databases and replication environment. This must significantly reduce custom development of scripts and speedy deployment of DR solutions.		
5	The DR Management solution should have a managed lifecycle for all workflows from draft to final published version with version control and time stamp to ensure proper testing and troubleshooting of drill/recovery procedure.		
6	The proposed solution should be capable of executing DR drill and recovery workflows in simulation mode, without any changes to DR to ensure conditions are met to ensure a successful execution.		
7	The proposed solution should have granular, role based administration and should use existing Active Directory/LDAP for identity management without the need of its own, separate identity management database and facilitate role based administration based on attributes defined in AD/LDAP.		
8	The proposed solution should be capable of generating reports and email/SMS alerts on RPO deviation, RTO deviation and DR Drills from a centralized location.		

9	The proposed solution should be able to manage hosts by either deploying agents or without deploying any agent and should seamlessly integrate with existing environment without the need to replace/change configuration including existing clusters.		
10	The proposed solution must support all major platforms including Linux, Windows, Solaris, HP-UX, and AIX with native high availability options. It must support both physical and virtual platforms.		
11	The proposed solution should have file level replication for associated application servers and DB log replication which is supported on the commonly used OS platforms and has inbuilt bandwidth compression.		
12	The proposed solution should have a file system analytics tool to give total file/directory count, typical scan time, number of open files, time of last replication for a file, file size & time stamp.		
13	The DR Monitoring and Management software must be running successfully in at least 30 large organizations.		
14	The DR Monitoring and Management software must be available in India market for more than 5 years and running in at least 15 large PSU/government organizations		
15	The main management server of the proposed should have a mechanism to have a local HA and remote, real time replica to eliminate any single point of failure and should not have any impact on the production in case the main management server fails.		
16	The DR Management solution should be tested and certified by an A2LA Accredited Organization to ensure that there are no security vulnerabilities which can be exploited.		
17	The DR management solution should have inbuilt debugging and log capture with facility to view the logs from the web based GUI itself.		
18	The DR Management solution should have a validation tool to verify DC-DR equivalence for OS, databases and applications with both out-of-box and custom templates.		
19	The DR management solution should be managing 3-way DR in at least 5 organizations		
20	5 years OEM support		

7.11. Backup Software

Backup Software Specifications			
S. No.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Backup software must be present as Leaders in Gartner's Magic Quadrant for backup software for at least 3 years in last 5 years.		
2	Backup Software must support GUI with centralized management / Single interface for management of all backup and archival (file system and E-mail) activities across physical servers, VMs and Mobile devices like Laptops / Tabs / Phone.		
3	The Proposed backup solution should be available on various OS platforms such as Windows, Linux and Unix platforms and be capable of supporting SAN based backup/restore from various platforms including Unix, Linux and Windows. It should able to integrate with virtualization software and should be able to take back-up of virtual servers.		
4	The proposed solution should be able to backup end user's desktop & laptops		
5	Backup Software must support GUI with centralized management / Single interface for management of all backup and archival (file system and E-mail) activities across physical servers, VMs. Branches and end point backup is not in scope.		
6	The proposed backup solution should be capable of taking backup of SAN environment as well as LAN based backup.		
7	For immediate recovery Bare metal recovery option should be considered for servers & desktops.		
8	Granular restoration along with BMR option for quick recovery of deleted files. For DB , VM's, Mail applications expected granular restoration at application aware manner		
9	The proposed solution should have ability to protect all mount paths associated with disk libraries configured from a Backup/Media Server against Ransomware attacks.		
10	The proposed backup solution has in-built media management and supports cross-platform device and media sharing in SAN environment. It provides centralized scratch pool thus ensuring backup never fails for media		
11	The proposed solution should provide variable length data deduplication at global level along with compression.		
12	Backup software is able to rebuild the Backup/database catalog from tapes/media in the event of catalog loss/corruption.		

13	The proposed backup solution shall offer Open File support for Windows, Linux based Servers		
14	Backup Clients should be updated automatically using the client push or/and update feature and install backup agent in the laptop , desktop and server from a single console.		
15	Backup software should be able to protect the following through online agents enabling granular restores. Major DBs like Oracle, Exchange, Sybase, Informix, DB2, MS SQL, MySQL, MongoDB, MariaDB, postgresQL. and Applications likes SAP across wide range of popular Windows / Linux and Unix flavours.		
16	Proposed solution should support universal recovery to restore from P2P, P2V, V2V, and V2P without having to wait to extract the full backup to production storage		
17	Proposed solution should have capability to take consistent snapshot of all Microsoft Application i.e. MSSQL, Exchange, Oracle and SharePoint		
18	Proposed solution should provide granular email (single mailbox, single mail) to an outlook client or pst or file-level recovery for Exchange and SharePoint without additional cost		
19	The proposed licenses should be Perpetual in nature. All the necessary licenses should be supplied along with the solution. The licenses should be based on the front end capacity of the data to be backed up.		
20	Proposed solution should support seeding of baseline data to an offsite target core if the cores are separated by a slow or highly latent links.		
21	The software should be able to use Network file share/block storage and native file server volumes for keeping the backup copies		
22	It should have full support for backing up virtual servers (image level) on various hypervisors like Hyper - V, ESXi, RHEV, OVM, Acropolis, Citrix, Fusion.		
23	The software must allows administrators to back up a server as frequently as every 15 minutes. The software must allow Administrator to backup of servers , desktop and laptop from a single console .		
24	The software should be able to generate logs & report e.g. de-duplication report, Data growth analysis report, Compute utilization report during backup etc.		
25	The software should support clustered environment of VMWare/Hyper-V at the hypervisor level		

26	Comprehensive reporting of media, backup server, jobs, analytics should be offered as part of the functionality in the supplied software either natively or through additional reporting software.		
27	The proposed solution should have the capability to take Backup of Network Shares and UNC path.		
28	The proposed solution should provide assured recovery mechanism for testing backup integrity.		
29	Should support software based de-duplication to support any storage system, cloud repository and object storage as de-duplicated disk target. Based on policy backup software should be able to move data to a tape library automatically. The proposed backup solution should support snapshot based backup from various vendors such as Hyperflex, HP 3PAR, EVA, Fujitsu Eternus, Oracle ZFS, Infinidat, Solidfire, Huawei, Tintri,etc.		
30	The proposed solution should provide D2D2T,D2T and D2D2C capabilities.		
31	Backup software should have the ability to archive data and create a single repository for backup and archive for space efficiency and easier data management.		
32	Backup software should be able to replicate backed up data in de-duplicated format (for bandwidth optimization) to another site for compliance purposes, with or without the need of external replication tools. All necessary hardware and licenses for achieving consistent replication of backup data should be quoted.		
33	It should support the following algorithms and provide better security in deployment across sites - BLOWFISH, GOST, Serpent, AES, Twofish, 3-DES.		
34	5 Years Warranty support		
35	Proposed backup software should be able to take backup and restore data at DC and DR both sites. If any license or server required for the same to be provided by the bidder.		

7.12. Virtualization Software

Sr	Parameter	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Bare Metal Solution	Sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability & security and should be Leaders in the Gartner's Magic Quadrant for at least last 5 years in a row.		

2	Guest OS Support	Windows client, Windows Server, Linux (Red Hat, SUSE, Ubuntu and CentOS) etc.		
3		Guest OS support on hypervisor should be certified by respective OS OEM		
4	Live Migration	Live Virtual Machine migration between different generations of CPUs in the same cluster and without the need for shared storage option and long distances from one site to another (up to 150 milliseconds round trip time) with no disruption to users or loss of services, eliminating the need to schedule application downtime or business downtime.		
5		Live migration of VM disk from one storage array to another without any VM downtime. Support this migration from one storage protocol to another eg: FC, NFS, iSCSI, DAS.		
6	Availability	Proactive High availability capability that utilizes server health information and migrates VMs from degraded hosts before problem occurs		
7		Migration of VMs in case one server fails all the Virtual machines running on that server shall be able to migrate to another physical server running same virtualization software.		
8		It should support affinity and anti affinity rules to set constraints that restrict placement of a virtual machine to a subset of hosts in a cluster and to keep virtual machines paired or separated.		
9		Zero downtime, no data loss and continuous availability for the applications running in virtual machines in the event of physical host failure, without the cost and complexity of traditional hardware or software clustering solutions.		
10	Performance	Add CPU, Memory & devices to virtual machines on the fly when needed, without disruption or downtime of working VMs for both windows and Linux based VMs.		
11		Create a cluster out of multiple storage datastores and automate load balancing by using storage characteristics to determine the best place for a virtual machine's data to reside, both when it is created and when it is used over time.		
12		Support for persistent memory, exposing it as block storage or as memory, to enhance performance for new as well as existing apps		

13		Should be able to dynamically allocate and balance computing capacity across collections of hardware resources aggregated into one unified resource pool with optional control over movement of virtual machines like restricting VMs to run on selected physical hosts.		
14		Should support network and storage QoS to ensure performance on per VM basis		
15	Security	Hypervisor should support VM-level encryption with no modifications in guest OS to protect unauthorized data access both at-rest and live vmotion and also provides secure boot for protection for both the hypervisor and guest operating system by ensuring images have not been tampered with and preventing loading of unauthorized components.		
16	Storage support	Support boot from iSCSI, FCoE, and Fibre Channel SAN. Integration with Storage API's providing integration with supported third-party data protection, multi-pathing and disk array solutions.		
17	Virtual Switch	Span across a virtual datacenter and multiple hosts should be able to connect to it. This will simplify and enhance virtual-machine networking in virtualized environments and enables those environments to use third-party distributed virtual switches.		
18		In-built enhanced host-level packet capture tool which will provide functionalities like SPAN, RSPAN, ERSPAN and will capture traffic at uplink, virtual switch port and virtual NIC level. It should also be able to capture dropped packets and trace the path of a packet with time stamp details.		
19	VM based Replication	Efficient array-agnostic replication of virtual machine data over the LAN or WAN. This Replication should simplify management enabling replication at the virtual machine level and enabling RPOs as low as 15 minutes.		
20	Support	5 years, 24x7x365 days with unlimited incident support including the unlimited upgrades and updates.		

8. Annexure B: Cyber Security Technical and Functional Compliance

8.1 NGFW (Firewall+IPS+URL+ zero day + Anti-virus/Anti-Bot)

External Firewall Specifications			
Sr	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Fixed architecture		
2	Solution should be appliance based on multi-core Processing Technology		
3	Minimum storage minimum 100GB SSD		
4	Dual Power supply		
5	Minimum 2 x 10G SFP+ Interfaces. All ports should be populated with 10G multimode transceivers		
6	Minimum 8 x 10/100/1000 copper Interfaces		
7	Solution shall provide features of Firewall, IPS, URL filtering, Anti-Bot, Anti Malware & Zero-day Threat Protection, VPN and Application Control on same platform		
8	Threat Prevention throughput should be 7 Gbps measured on Mix Traffic/ Enterprise Mix traffic		
9	Minimum IPsec VPN throughput - 10 Gbps		
10	Minimum tunnels (SSL, IPSec) - 200		
11	Concurrent Sessions - 8,000,000		
12	Connections/Sessions per sec - 300,000		
13	Active/ Active, Active/Passive		
14	The proposed firewall shall support network traffic classification which identifies applications across all ports irrespective of port/protocol		
15	The proposed firewall shall be able to create custom application signatures and categories		
16	The proposed firewall shall be able to implement Zones, IP address, Port numbers, User id, Service and threat protection profile under the same firewall rule or under different set of policies		
17	The proposed firewall shall delineate different parts of the application such as allowing Facebook chat but blocking its file-transfer capability inside the chat application base on the content.		
18	Intrusion prevention signatures should be built based on the vulnerability itself, A single signature should stop multiple exploit attempts on a known system or application vulnerability.		
19	Should block known network and application- layer vulnerability exploits		
20	The proposed firewall shall perform content based signature matching beyond the traditional hash base signatures		

21	The proposed firewall shall have on box Anti- Virus/Malware, Anti Spyware signatures and should have minimum signatures update window of 600 seconds.		
22	All the protection signatures should be created by vendor base on their threat intelligence		
23	Should be able to call 3rd party threat intelligence data on malicious IPs, URLs and Domains to the same firewall policy to block those malicious attributes and list should get updated dynamically with latest data		
24	This should be a cloud base unknown malware analysis service with guaranteed protection signature delivery		
25	Advance unknown malware analysis engine should be capable of machine learning with static analysis and dynamic analysis engine		
26	on premise malware analysis appliance should be able to perform dynamic threat analysis on such as EXEs, DLLs, ZIP files, PDF documents, Office Documents, Web pages that include high-risk embedded content like JavaScript, Adobe Flash files		
27	The proposed next generation security platform should be able to detect and prevent zero day threats		
28	Same Hardware platform should be scalable to provide URL filtering and web protection and should maintain same performance/throughputs mention in primary scope		
29	The proposed firewall shall have the database located locally on the device or in the attached management server / appliance		
30	The proposed firewall shall support custom URL-categorization		
31	The proposed firewall shall support customizable block pages		
32	The proposed firewall shall support logs populated with end user activity reports for site monitoring (locally or via separate management solution)		
33	The proposed firewall shall support URL Filtering policies by AD user, group and IP address/range		
34	Should support full-path categorization of URLs only to block the malicious malware path not the full domain or website		
35	Should support zero-day malicious web site or URL blocking update for URL DB update for zero-day malware command and control, spyware and phishing websites access protection		
36	Should support URL or URL category base protection for user cooperate credential submission protection from phishing attack with malicious URL path		
37	The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection		

38	The proposed firewall must support the following routing protocols: ' - Static ' - OSPFv2 and v3 with graceful restart ' - BGP v4 with graceful restart ' - Policy-based forwarding ' - PIM-SM		
39	Should support the following authentication protocols: - LDAP - RADIUS		
40	The proposed firewall's SSL VPN shall support the following authentication protocols		
	- LDAP		
	- Radius		
	- Any combination of the above		
41	Should support on device or centralized management with complete feature parity on firewall administration		
42	Should have separate real time logging base on all Traffic, Threats, User IDs, URL filtering, Data filtering, Content filtering, unknown malware analysis, Authentication, Tunnelled Traffic and correlated log view base on other logging activities		
43	Should support the report generation on a manual or schedule (Daily, Weekly, Monthly, etc.) basis		
44	Should allow the report to be exported into other format such as PDF, HTML etc.		
45	Should have built in report templates base on Applications, Users, Threats, Traffic and URLs		
46	There shall be provision for logging, reporting, management etc. either through on-device arrangement or through external management server on premise.		
47	The device or management server shall be able to keep logs for minimum 1 year or store logs up to 4 TB.		
48	5 years OEM Warranty and support		
Anti-APT Specifications			
S. No.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	The solution should be able to communicate with the proposed Firewall / NGFW solution for automatic blocking/threat update. HA is not required for Ant-APT solution		

2	The solution should support deep packet inspection of SSL encrypted traffic (including HTTPS) for both incoming and outgoing		
3	The solution should provide detection, analysis and remediation capability against APT & SSL based APT attacks.		
4	The solution must employ an on premise (not on cloud) analysis engine using virtual execution to detect zero day and unknown threats and must not be signature based.		
5	The proposed solution should be able to detect and prevent advanced Malware, Zero-day attack, spear phishing attack, drive by download, watering hole and targeted Advanced Persistent Threat without relying on just Signature database.		
6	The proposed solution should perform dynamic real-time analysis of advanced malware to confirm true zero-day and targeted attacks. No file should be sent to third party systems or cloud infrastructure system for analysis and detection of Malware		
7	The proposed solution should automatically detect and confirm multistage zeroday malware and targeted attacks without prior knowledge of the malware.		
8	The proposed solution should utilize a state-full attack analysis to detect the entire infection lifecycle, and trace the stage-by-stage analysis of an advanced attack, from system exploitation to outbound malware communication protocols leading to data exfiltration.		
9	The proposed solution should analyze advanced malware against a cross-matrix of different operating systems and various versions of pre-defined applications.		
10	The solution must support pre-populated Licensed copies of Operating systems and applications/softwares (like Microsoft Office). There should be no requirement for the customer to buy additional licesnse.		
11	The system should be able to support file sizes upto 100 mb and more		
12	The proposed solution should have the ability to analyse, detect and block malware in common file formats including but not limited to executables, JAVA, PDF, MS Office documents, common multimedia contents and ZIP/RAR/7ZIP/TNEF		

	archives to prevent advanced Malware and Zeroday attacks		
13	The proposed solution should capture and store packet captures of traffic relevant to the analysis of detected threats.		
14	The proposed solution should have the ability to display the geo-location of the remote command and control server(s) when possible.		
15	The proposed solution should have the ability to report the Source IP, Destination IP, C&C Servers, URL, BOT name, Malware class, executable run, used protocols and infection severity of the attack.		
16	The proposed solution should be able to send both summary notifications and detailed per-event notifications utilizing the protocols (SMTP, or SNMP).		
17	The proposed solution should have the ability to be deployed in out-of-band mode (also SPAN/TAP) & inline mode		
18	The proposed solution should be capable to block inbound malicious exploits delivered via a web channel and outbound call-back communications when deployed in inline, or out-of-band mode.		
19	The proposed solution should support SMB / CIFS / NFS protocol for sharing and transferring files		
20	The proposed solution should provide visibility into scan histories of each file scanned that are aborted, completed, or in progress.		
21	The solution should provide reports in (but not limited to) PDF/CSV formats.		
22	The solution should have anti-evasion capabilities to prevent malwares detection of being run/executed in the virtualized environment.		
23	The solution should support for SIEM log integration.		
24	The solution should be able to schedule reports and also provide the flexibility to generate on-demand reports like daily/weekly/monthly/ yearly/ specific range (day and time) etc.		
25	Minimum number of Interfaces - 4x GE & 4 x GE SFP		

26	Number of VM's should be atleast 12		
27	It should support Sandbox Analysis for multiple operating systems like Win7,Win8,Win10 etc		
28	The APT appliance should be able to process minimum of 280 files/hour or 2,00,000 files/month on the VM sandboxing		

8.2 Internal Firewall

Internal Firewall Specifications			
Sr.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	The appliance hardware should be a multi-core CPU architecture with a hardened 64 bit operating system to support higher memory		
2	Should be rack mountable		
3	Redundant power supply		
Interfaces			
4	Minimum 2 x 10G SFP+ Interfaces, and scalable to 4 X 10G SFP+ interface. All ports should be populated with 10G multimode transceivers. Minimum 4 10/100/1000 copper Interfaces		
5	Console Port or equivalent - 1 number		
Throughput			
6	Minimum NGFW throughput 4 Gbps		
Memory			
7	Minimum RAM 16 GB		
Routing Protocols			
8	Static Routes		
9	OSPF v2 &v3		
Protocols			
10	TCP/IP, PPTP or IPSec		
11	RTP or L2TP or L2TPOverIPSec or IPSec		
12	IPSec /GRE, DES, 3DES, AES		
13	FTP, HTTP, HTTPS		
14	SNMP, SMTP		
15	DHCP, DNS		
16	IPv6 enabled		
17	IPv6-enabled inspection services for applications based on HTTP/HTTPS, SSHv2, FTP, SMTP, ICMP, TCP, and UDP		
18	Allows secure deployment of next-generation IPv6 networks, as well as hybrid environments that require simultaneous, dual stack, support of IPv4 and IPv6		
QoS			

19	Should support for QoS features for defining the QoS policies or rate limiting QS policy.		
Other Support			
20	802.1Q, NAT, PAT, IP Multicast support, Remote Access VPN, support VLAN, Layer 2 Firewall, Radius/TACACS+		
21	SNMP v1, v2 and v3		
IPS functionality			
22	Capable of applying the security policies based on VLAN ID,		
23	Source/Destination subnets		
24	Should protect against SSL based attacks		
25	Flexibility to create new policies or modify existing policies in real time		
26	Block attacks in real time, Drop Attack Packets, Packet Logging. Block malicious network activity and Prevent stealthy attacks.		
27	Reset Connections, Action per Attack		
28	Support for detailed intrusion alarms		
29	Extensive protocol monitoring: should support monitoring of protocols such as TCP/IP, ICMP, FTP, UDP, SMTP, HTTP, SNMP, DNS, RPC, NetBIOS, Telnet etc.		
30	Log File, Syslog support		
31	Should support 24/7 Security Update Service		
32	Should support automatic Real Time signature update		
33	Should support Provision to add static own attack signatures		

8.3 Server Load Balancer with WAF

Sr	Specification	Compliance (Y/N)	Remarks
1	Must be an appliance with Hardened OS OR any Software based solution running on Industry grade server which supports Multitenancy and Virtual Contexts		
2	The solution offered must have below specifications-		
	a) Minimum 5 Gbps L7 throughput from day 1 scalable upto 10 gbps		
	b) Should support 100000 Layer 7 and Layer 4 connections per second		
	c) System must support 2K SSL TPS for 2K bit key and 5K SSL TPS (EC)		
	d) The system should support Multiple Context creation and Multitenancy through the use of virtualization technologies like containerization, standard hypervisors etc.		

3	A SINGLE central controller should be capable of managing a HETEROGENOUS cloud environment comprising of different cloud and virtualization platforms		
4	The proposed solution should have a Central Management station which support Auto-Discovery, Integration and Orchestration of the underlying cloud on which it has been deployed		
5	Should have WAF as an integral feature to the Server Load Balancing function. The WAF should have a minimum feature set to protect the applications from the OWASP Top 10 attacks, DDoS solution		
6	The solution should provide Application performance monitoring through detailed analytics at a PER APPLICATION level.		
7	The SLB should support the below load balancing algorithms:		
8	· Hash		
9	· Least Connections		
10	· Round-Robin		
11	· Weighted Round Robin		
12	· Response Time		
13	· Bandwidth		
14	· Load based for HTTP only		
15	In case the bidder proposes a Virtual load balancer then the instances should support Flexible licensing plans which may be VCPU based OR on any metric that can be measured and managed centrally. These licenses should provide the option to scale UP the performance levels ON DEMAND.		
16	The Load Balancer should support Day 0 provisioning using Open interfaces for e.g. REST based provisioning of Network Interfaces and Application and associated policies		
17	ROLE BASED ACCESS control should be available on a PER TENANT basis		
18	Traffic Redirection		
19	The proposed solution should support performing load balancing for Layers 4 through 7 of the Open Systems Interface		

	(OSI) reference model with support to the IP, TCP and UDP protocols.		
20	System supports performing load balancing for Layers 4 through 7 based on source/destination IP		
21	System supports performing load balancing for Layers 4 through 7 based on application content		
22	System support load balancing based on relative weight		
23	System support load balancing based on CPU - Memory Utilization of Server using defined SNMP (MIB) data		
24	System support load balancing based on cyclic (round-robin)		
25	System support load balancing based on least connections		
26	System supports virtual servers that can listen on UDP and TCP ports		
27	System has the ability to enable and disable individual servers behind a virtual address. Servers can be removed in both a graceful and hard shutdown fashion.		
28	Persistency		
29	System supports session persistency based on Layer 3.		
30	System is able to make persistency decisions based cookies		
31	Health Monitoring		
32	System supports the ability configure TCP and UDP monitors		
33	System supports multiple health checks per IP and per port		
34	System supports the ability to specify the number of retries for each monitor before marking a Real Server unavailable.		
35	System should support creating application specific custom monitor using scripts. This scripting option should be available as a standard component of the OS.		
36	SSL Acceleration and Offloading		
37	System supports SSL offload - the ability to manage client side SSL traffic by terminating incoming SSL connections and sending the request to the server in clear text		

38	Should support end – end SSL if required		
39	Should support ECC in Software in addition to other commonly used Ciphers		
40	System supports hardware based SSL acceleration OR standard SSL functionality built into the latest CPU's from Intel and AMD SSL which include stack optimizations and optimized instruction set code like RSAX, AVX,AVX-2, MULX, ADCX, ADOX, RORX, and RDSEED		
41	Mode of Operation and Routing support (IPv6 / IPv4)		
42	Should support IPv4 addressing		
43	Should support IPv6 addressing		
44	Should support mixed mode operations wherein the Virtual Service and the Backend pool members may run either IPv4 or IPv6 or a combination of both		
45	Global Server Load Balancing		
46	Global Server Load Balancing supported on the same appliance		
47	System supports performing load balancing across multiple geographical sites for transparent failover, complete disaster recovery among sites and optimal service delivery , Single application failure etc.		
48	System supports global response time optimization in real-time through advanced load and proximity measurements		
49	System supports providing failover capability between data centers in active-active or active-backup modes		
50	System supports global redirection based on DNS		
51	Web Application Firewall		
52	The WAF shall, in combination with the SLB, provide the following features-		
	1. Creation of L3/ L4 Access Control lists on a PER APPLICATION Basis		
	2. Creation of L7 Access Control lists on a PER APPLICATION Basis		
	3. Creation of RATE LIMIT controls to limit the number of Requests made on a PER APPLICATION Basis. This Rate limit control shall be as specific as Per Client and PER URL or as		

	broad as ALL Clients and LL URLs. The solution shall provide the capability to Rate limit on any specificity of client (All clients OR a Single Client) and URL (All URLs OR Single URL)		
	4. DDOS Detection and Elastic Scale-OUT to Manage DDOS traffic on a PER APPLICATION Basis		
	5. Provide Configurable parameters to prevent SLOW * Attacks like SlowLoris, SlowPOST, SlowHEADERS etc.		
	6. Support for ModSecurity Core Rule sets		
	7. Support for OWASP Top 10 Security Rule sets		
	8. Support for Creation of customized Security rules based on ModSecurity Language and Directives		
53	Service ,Support & Training		
54	Vendor operates 24/7/365 global Technical Assistance Center (TAC). There should be a local TAC available in India		

8.4HIPS

Sr	Specification	Compliance (Y/N)	Remarks
1	HIPS should perform rootkit detection, time- based alerting and active response. It should help to detect attacks, software misuse, policy violations and other forms of inappropriate activities.		
2	HIPS should be able to monitor multiple systems, with one system being the HIPS server and the others the HIPS agents that report back to the server.		
3	Time to Time Signature updates		
4	Monitoring and prevention from Intrusion attack		
5	Verifies success or failure of an Server		
6	Monitors specific system		
7	Detects attacks that network-based systems miss		
8	Well-suited for encrypted and switched environments		
9	Near-real-time detection and response		
10	Should protect against unknown attacks		

8.5 Endpoint security

S.No	Specification	Compliance (Y/N)	Remarks
1	Must offer comprehensive client/server security by protecting enterprise networks from File based and file less malware and exploits.		
2	Must be able to reduce the risk of virus/malware entering the Endpoint by blocking files with real-time compressed executable files.		
3	Must include capabilities for detecting and removing rootkits		
4	Must provide Real-time Malware/ Greyware scanning for file system to prevent or stop spyware execution		
5	To address the threats and nuisances posed by Virus, the solution should be able to do the following:		
6	a) Terminating all known virus processes and threads in memory		
7	b) Repairing the registry		
8	c) Deleting any drop files created by viruses		
9	d) Remove and repair any Microsoft Windows services created/modified by viruses		
10	Solution must include Clean-up for Spyware, Adware, Malware etc.		
11	Solution should be able to use multilayer of protection like memory exploit prevention, reputation analysis, behaviour analysis, machine learning to detect and stop malware in absence of virus signatures.		
12	solution shall provide option to limit/deny access to specific shared folders, block ports, and deny write access to specific folders on selected clients in case there is an outbreak		
13	Must have behaviour monitoring to restrict system behaviour, keeping security-related processes always up and running		
14	Must provide Real-time lock down of client configuration – allow or prevent users from changing settings or unloading/uninstalling the software and provide tamper protection even if user or malware is running with admin privileges.		

15	Users with the scheduled scan privileges can postpone, skip, and stop Scheduled Scan.		
16	Solution provide options to fine tuning of the scans so that the impact on the performance is low like configuring archive scanning depth or scans only run when the client computer is idle.		
17	Should have a feature that allows administrators to configure port blocking, block shared folder, deny writes to folders manually and ability to isolate it completely from the network except to the management serve		
18	Should have Integrated spyware protection and clean-up		
19	Should have the capability to assign a client the privilege to act as an update agent for rest of its peer endpoints for a location.		
20	Shall be able to perform different scan Actions based on the virus type (Trojan/ Worm, Joke, Hoax, Virus, other)		
21	shall be able to scan only those file types which are potential virus carriers (based on true file type)		
22	Should be able to detect files packed using real-time compression algorithms as executable files.		
23	Client machine which is acting as update agent which is delivering pattern updates to rest of the machines in the LAN & provide virus updates.		
24	Shall be able to scan Object Linking and Embedding (OLE) Files also		
25	Must Have in the cloud based protection and support for Online and Offline mode client protection		
26	Must provide File reputation service		
27	Must be able to check the reputation of files accessed.		
28	Solution should work on the plugin architecture so that in future if we need to enhance the of our network we can do that without a major client level activity		
29	Uses any alternate method other than the conventional pattern based scanning with the following features:		
	a) Provides fast, real-time security status lookup capabilities in the cloud		
	b) Reduces the overall time it takes to deliver protection against emerging threats		

	c) Reduces network bandwidth consumed during pattern updates. The bulk of pattern definition updates only need to be delivered from the cloud or some kind of repository and not to many endpoints		
30	Should be able to deploy the Client software using the following mechanisms:		
	a) Client Packager (Executable & Microsoft Installer (MSI) Package Format)		
	b) Web install page		
	c) Login Script Setup		
	d) Remote installation		
	e) From a client disk image		
	f) Support Microsoft SCCM server		
31	Must provide a secure Web-based management console to give administrators transparent access to all clients and servers on the network		
32	The management server should be able to download updates from different source if required, which could be the OEM's update server, any other server or a UNC path		
33	If the update from the Management server fails, the security clients with the privilege should be able to get updates directly from the OEM's server		
34	Must reduce network traffic generated when downloading the latest pattern by downloading only incremental patterns		
35	Must have the flexibility to roll back the Virus Pattern and Virus Scan Engine if required via the web console and must have the ability to perform a staged rollout by group		
36	Should have role based administration with active directory integration		
37	The solution shall support creation of custom role types, user addition to custom or pre-defined role.		
38	Must be capable of uninstalling and replacing existing client antivirus software		
39	Must support plug-in modules designed to add new security features without having to redeploy the entire solution, thereby reducing effort and time needed to deploy new security capabilities to clients and servers across the network		
40	Solution should be agent based for managing all critical components for comprehensive security on endpoint (AV, Anti spyware, device control, Application control, desktop firewalls, desktop HIPS etc.)		

41	Security Compliance leverages Microsoft Active Directory services to determine the security status of the computers in the network		
42	Must be able to send notifications whenever it detects a security risk on any client or during a security risk outbreak, via E-mail.		
43	Support for All Windows OS versions later than Windows 7(including) and Window server 2008 and later including Server Editions, Mac		
44	The solution should potentially block the end point system from loading physical devices such as removable storage devices, Bluetooth, Wi-Fi, and other plug and play devices based on device classes and device definitions are used to define device rules		
45	It should support device management and should allow you to Monitor, Block or make the device Read-Only along with the option of providing exceptions		
46	It should support for customizable notification “pop-up” messages		
47	It should be able to control the access of USB devices by using their vendor ID, product ID or serial number.		
48	The solution installation, policy management and reporting should be handled by an integrated endpoint agent on the client.		
49	It should support ability to restrict access to company approved devices, but also if necessary to permit exclusions to this requirement. Exception and/or exclusions can be designed to accommodate different devices or different groups of users		
50	It should provide the functionality of logging and audit-trail capabilities		
51	The solution should be managed from a centralized console and should provide integrated management for endpoint security solution. It should be able to deploy, manage, and update agents and policies from centralized management platform		
52	Centralized management server should be able to automatically report about the new unprotected endpoints		
53	Central management console should provide actionable reports		

54	Central management console should support granular role based access control		
55	Should ensure security policy enforcement by integrating and centralizing installation, deployment, management & updating		
56	Centralized management server should be able to automatically report about the new unprotected		
57	Solution should provide for custom reports and queries along with role-based access providing different levels of dash-boarding and relevant reports to users.		
58	Solutions should provide near real-time event monitor allowing you to see events as they happen, view details (user, machine,rules triggered, etc.),and even access evidence files as the events happen in your environment.		
59	Solutions should support report customization and allow viewing directly using a web browser and also as a dashboard using the same management console for the endpoints.		
60	Solution should supports the following formats for exporting data: CSV/ HTML/ XML/ Acrobat PDF		
61	Solution should support ability to restrict access to company approved devices, but also if necessary to permit exclusions to this requirement. Exception and/or exclusions can be designed to accommodate different devices or different groups of users		
62	Solution should provide the functionality of events being viewed, filtered, and sorted in the Management console, allowing security officers or administrators to view events and respond quickly.		
63	Solution should provide the functionality of logging and audit- trail capabilities.		
64	Solution should provide the capability to log administrative activities in the Management console. Administrative activities that are logged in the Management console include, changes to policies, deployment of policies, agent override activities, agent termination, and agent uninstall key generation.		

8.6 Database Activity Monitoring

Sr.	Minimum Specification	Compliance (Y/N)	Remarks
1	The solution should be Database agnostic and should support at least the following databases:		
2	Oracle 10g, 11g, 12c, SQL Server 2008, 2012 or higher, Sybase ASE 15.0.3 or Higher, MySQL, IBM DB2		
3	The solution should support on the following OS platforms at least: IBM AIX 6.1 or Higher, Microsoft Windows 2008 / 2012 all editions or Higher, Red Hat Enterprise Linux / Oracle Linux (latest version), HP-UX 11 or Higher, ORACLE SOLARIS 10 & 11 or Higher		
4	Solution does not require changes in the database application (e.g. tuning audit or trace on)		
5	Solution should be a non-intrusive agent installed on the server. The agent should read the data from shared memory		
6	Solution should protect it-self from tampering and attacks		
7	Solution allows easy translation of actual database activity into monitoring / audit policy direct from alerts		
8	Solution should be capable of capturing the alerts which will include the following metadata: Originating IP Address, DB User, OS User, Full SQL Statement, Accessed tables, Application Name, Module Name, Host Name/Terminal name, Command type		
9	The solution should be capable of sending alerts to external applications atleast through: via e-mail/Syslog/SNMP trap		
10	Solution should easily integrate with existing SIEM and other management products		
11	Solution should be capable of monitoring of all database activities and protect against insiders with privileged access		
12	Solution should offer granular monitoring of database transactions with real-time alerts and prevention of breaches		
13	Solution should offer granular monitoring of queries, objects and stored procedures with real-time alerts and prevention of breaches		
14	Solution should offer flexible audit and reporting capabilities suitable for PCI DSS, SOX and HIPAA		
15	Solution should provide multiple user roles that facilitate separation of duties		
16	Solution should capable of monitoring and alerting unauthorized access to sensitive data on the Database, like credit card tables etc.		

17	Solution should have the ability to independently monitor and audit all database activity, including administrator's activity and select transactions.		
18	Solution should record all SQL transactions : DML, DDL , DCL and Selects and The ability to store this activity securely outside the database		
19	Solution should have the ability to enforce separation of duties on Database Administrators. Auditing should include monitoring of DBA activity and solutions should prevent DBA manipulation or tampering with logs or recorded activity.		
20	Solution should have the ability to generate alert on policy violations and provide real time monitoring and rule based alerting.		
21	Solution should have the ability to ensure that a service account only accesses a database from a defined source IP and only runs a narrow group of authorized queries		
22	Solution Should capture and report on SELECT statements made on Databases		
23	Solution Should report on detailed SQL, including the source of the request, the actual SQL commands, the database user name, when the request was sent and what database objects the command was issued against.		
24	Solution Should report on database access including logins, client IP, server IP and source program information.		
25	Solution Should track execution of stored procedures, including who executed a procedure, name of the procedure and when, which tables were accessed as a result		
26	Solution Should track and audit administrative commands such as GRANT		
27	Solution Should track and report all failed logins.		
28	Solution Should support creation of specific rules on observed events, sending SMTP alerts when the rules are violated.		
29	Solution should Capture and report on non-administrators executing DDL.		
30	Solution Should support architecture where application has pooled connections, the user name should be monitored.		
31	The solution deployed should not require any change in the DBMS binaries		
32	The agent should not demand for restart of the database while installing or while upgrading or while uninstalling the solution		

33	Solution should be able to monitor inter and intra DB activities and attacks		
34	Solution should be able to monitor activities done by administrator or any DB admin sitting directly on the database server console		
35	The solution should have a single console to manage and monitor database activity monitoring and the vulnerabilities inside the database		
36	Solution should be capable of detecting weak passwords		
37	Solution Application comes with predefined reports, allows for customizing and Ad-hoc reports		
38	The solution should provide Sarbanes-Oxley module, PCI DSS and any others(Specify)		

8.7 Vulnerability Assessment and Penetration Testing Service

Sr	Minimum Specification	Compliance (Y/N)	Remarks
1	VAPT solution should be provisioned from service provider SOC		
2	The VAPT provider should be CERT-IN empanelled		
3	Each exploit should be showcased with proof of concept		
4	Service provider should have Red Team exercise experts		
5	Bidder shall be responsible for VAPT Audit -4- VA and -2- PT in a year		
6	The successful bidder shall be responsible for providing services for all the IPs/production systems/devices		

8.8 Multi Factor Authentication

Sr	Minimum Specification	Compliance (Y/N)	Remarks
1	Service infrastructure should reside in India		
2	Service should have Administrative self service capabilities		
3	Service should have user level self service capabilities		
4	Service should support SAML authentication for cloud and web 2.0 applications		

5	Service should provide multiple form factors for authentication Mobile token, desktop/laptop token, hard token, Grid based token		
6	Service should be OATH compliant		

8.9 Privileged Identity Management

S. No.	Minimum Specifications	Compliance (Yes/ No)	Remarks
1	Solution should support multiple and tightly couple security layers - Encryption, Access Control, Authentication		
2	Solution should be available as "pay as you go" subscription model.		
3	Architecture design needs to ensure complete separation of data between customers in the Vault with logical containers.		
4	Solution should be TLS 1.2 and SHA-2 compliant for PCI-DSS compliance		
5	Solution should support agentless web based & light weight architecture		
6	Should support high availability and disaster recovery		
7	console allows many to many grouping for enforcing policy based restriction to specific users or group of users		
8	should support for multiple browsers like Chrome, Firefox, Internet Explorer		
9	Password age is managed based on password change date		
10	Enable secure password storage of privileged identities without human intervention.		
11	100% Active Directory & LDAP Integration		
12	Dual Factor Authentication using Biometric Devices, Hardware Token & Mobile based OTP		
13	Maker-checker approval for critical PIM configuration activities		
14	Support for transfer of files using SFTP over SSH		
15	Integration with Third party SIEM solution		
16	Configuration Command profiles allows administrators to configuration access permissions on UNIX / databases / windows at group / user level.		
17	Enhanced Segregation of Duties within PIM solution		

18	User profile based console level restriction on Windows Platform		
19	S.M.A.R.T. Audit Trails for user activity tracking		
20	Dashboard should provide real-time view of activities performed by users		
21	Users can be notified via email / SMS for any changes to PIM configuration, administration and user activity		
22	bidder shall be responsible for underline infrastructure, Operating System, Hypervisor etc. to run the Privileged Identity Management solution.		

9. Annexure C: Telecom Technical and Functional compliance

9.1 SDWAN

Sr	Description	Compliance (Yes/No)	Remarks
1	For each site the primary and secondary MPLS VPN links needs to be provided from 2 different Operators to achieve link level, path level and network level redundancy		
2	The SDWAN CPE Solution providing OEMs must be listed as 'Leaders', 'Challengers' or 'Visionaries' in Gartner's report "Magic Quadrant for WAN Edge Infrastructure"		
3	The proposed SD-WAN solution should have the following minimum features: Application visibility and Analytics, Centralized Orchestration & Policy Management, Transport Independent Overlay solution, Application Aware Routing, Performance based App Aware Routing & Load Sharing, Segmentation & Dynamic Topologies, Application based QoS, Security & Encryption, Managed service offering, Self service Portal etc		
4	The last mile to be provided at DC and DR should be on FIBER with redundancy		
5	The last mile at branch/ other locations to be WIRED/ WIRELESS -RF/VSAT only. The proposed CPE device should have atleast 2 POE LAN ports.		
6	The bidder should provide NMS (hardware and software) tool and configure the same to monitor and manage all the transport media terminated on the CPE.		
7	The NMS tool should have capability to monitor / manage 500 links (MPLS/Internet etc) during the period of contract		

10. Annexure D - Telecom Location

				Bandwidth		Proposed Mode of Connectivity	
S. NO.	Product	Branch Name	Branch / Location Address	Link 1	Link 2	Link1	Link2
1	MPLS VPN	MPLS at DC		45 Mbps	45 Mbps		
2	MPLS VPN	MPLS at DR		45 Mbps	45 Mbps		
3	ILL	Internet Lease Line @DC with 1 Gig DDoS		10 Mbps	10 Mbps		
4	ILL	Internet Lease Line @DR with 1 Gig DDoS		10 Mbps	10 Mbps		
5	P2P	Point to Point link between DC to DR		22 Mbps	22 Mbps		
6	P2P	Point to Point link between proposed DC to proposed NDR		10 Mbps	10 Mbps		
7	P2P	Point to Point link between proposed NDR to proposed DR		10 Mbps	10 Mbps		
8	MPLS VPN	P2P Link from proposed DC to Existing SOC		4 Mbps	4 Mbps		
9	MPLS VPN	P2P Link from proposed DR to Existing SOC		4 Mbps	4 Mbps		
10	MPLS VPN	P2P Link from proposed NDR to Existing SOC		4 Mbps	4 Mbps		
11	MPLS VPN	P2P Link from proposed DC to RDC Haldwani		1 Mbps	1 Mbps		

12	MPLS VPN	P2P Link from proposed DC to RTGS Service Branch New Delhi		1 Mbps	1 Mbps		
13	P2P	Point to Point link between proposed DC to Switch at Mumbai	BKC Data Centre, Tata Communications Ltd., IDC-1, 3rd. Floor, B Building, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400053	256 Kbps	256 Kbps		
14	P2P	Point to Point link between proposed DR to Switch at Mumbai	BKC Data Centre, Tata Communications Ltd., IDC-1, 3rd. Floor, B Building, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400053	256 Kbps	256 Kbps		

15	P2P	Point to Point link between proposed DC to Switch at Chennai	Tata Communications Ltd., 3rd. Floor, Videsh Sanchar Bhavan No.4, Swami Sivananda Salai, Chennai - 600002	256 Kbps	256 Kbps		
16	P2P	Point to Point link between proposed DR to Chennai	Tata Communications Ltd., 3rd. Floor, Videsh Sanchar Bhavan No.4, Swami Sivananda Salai, Chennai - 600002	256 Kbps	256 Kbps		
17	MPLS VPN	001-MALL ROAD NAINITAL-[001]	G. B. PANT ROAD, MALL ROAD, NAINITAL-263001	512 Kbps	256 Kbps		
18	MPLS VPN	002-ALMORA-[002]	L. R. SAH, ROAD, ALMORA-263601	512 Kbps	256 Kbps		
19	MPLS VPN	003-HALDWANI-[003]	RAILWAY BAZAR, HALDWANI-263139	2 Mbps	512 Kbps		

20	MPLS VPN	004-RANIKHET-[004]	HERBERT HOUSE, P.O.-SADAR BAZAR, RANIKHET-263645	512 Kbps	256 Kbps		
21	MPLS VPN	005-RAMNAGAR-[005]	BAJAJA LANE, RAMNAGAR-244715	512 Kbps	256 Kbps		
22	MPLS VPN	006-KASHIPUR-[006]	RAMNAGAR ROAD, KASHIPUR-244713	512 Kbps	256 Kbps		
23	MPLS VPN	007-PITHORAGARH-[007]	BANK ROAD, SILTHAM, PITHORAGARH-262501	512 Kbps	256 Kbps		
24	MPLS VPN	008-KICHHA-[008]	YADAV FOODS LIMITED COMPOUND, RUDRAPUR ROAD, KICHHA-263148	512 Kbps	256 Kbps		
25	MPLS VPN	009-BAZPUR-[009]	RAMRAJ ROAD, BAZPUR-262401	512 Kbps	256 Kbps		
26	MPLS VPN	010-BHIMTAL-[010]	MALLITAL, BHIMTAL-263136	512 Kbps	256 Kbps		
27	MPLS VPN	011-RAMGARH-[011]	MALLARAMGARH, NAINITAL-263137	256 Kbps	256 Kbps		

28	MPLS VPN	012-BAGESHWAR-[012]	DHAPO LA BUILDIN G, STATIO N ROAD, BAGESH WAR- 263642	256 Kbps	256 Kbps		
29	MPLS VPN	013-LOHAGHAT-[013]	HANUM AN MANDIR ROAD, LOHAG HAT- 262524	256 Kbps	256 Kbps		
30	MPLS VPN	014-KILAKHERA-[014]	GADAR PUR- KASHIP UR ROAD, NEAR AMI CHAND PETROL PUMP, KILAKH ERA- 263150	256 Kbps	256 Kbps		
31	MPLS VPN	015-CHAMPAWA T-[015]	HOTEL MOUNT VIEW, BUS STATIO N, CHAMP AWAT- 262523	256 Kbps	256 Kbps		
32	MPLS VPN	016-LALKUAN-[016]	KOTHA RI BUILDIN G, MAIN MARKET , LALKUA N-262402	256 Kbps	256 Kbps		
33	MPLS VPN	017-T N ROAD LUCKNOW-[017]	T.N. ROAD, NEAR HAZRAT GANJ, LUCKN	2 Mbps	512 Kbps		

			OW-226001				
34	MPLS VPN	018-BAHERI-[018]	NAGAR PALIKA COMPOUND, BAHERI-243201	512 Kbps	256 Kbps		
35	MPLS VPN	019-BAILPARAO-[019]	RAMNAGAR ROAD, P.O.-BAILPARAO-263140	512 Kbps	256 Kbps		
36	MPLS VPN	020-SHAHJAHANPUR-[020]	285, CHANDRA BUILDING, SADAR BAZAR, SHAHJAHANPUR-242001	256 Kbps	256 Kbps		
37	MPLS VPN	021-PILIBHIT-[021]	TRIVENI MARKET, STATION ROAD, PILIBHIT-262001	256 Kbps	256 Kbps		
38	MPLS VPN	022-BAREILLY-[022]	46, CIVIL LINES, BAREILLY-243001	256 Kbps	256 Kbps		
39	MPLS VPN	023-KANPUR-[023]	18/54, THE MALL, OPPOSITE PHOOL BAGH, KANPUR - 208001	512 Kbps	256 Kbps		

40	MPLS VPN	024-NAGLA-[024]	NAGLA, P.O.- NAGLA DAIRY FARM- 263149	512 Kbps	256 Kbps		
41	MPLS VPN	025-SITAPUR-[025]	14, JAIL ROAD, HASAN ALI CHAUR AHA, SITAPUR -261001	256 Kbps	256 Kbps		
42	MPLS VPN	026-GHAZIABAD-[026]	35, ADDITI ONAL SIHANI GATE SCHEME , NEAR NAVYU G MARKET , GHAZIA BAD- 201001	512 Kbps	256 Kbps		
43	MPLS VPN	027-MEERUT-[027]	FIRST FLOOR, CITY PLAZA, BACHH A PARK, BEGUM BRIDGE ROAD, MEERUT -250001	512 Kbps	256 Kbps		
44	MPLS VPN	028-PAHARPANI-[028]	MORNA ULA ROAD, PAHARP ANI- 263132	256 Kbps	256 Kbps		
45	MPLS VPN	029-BARA-[029]	KICHHA - SITARG ANJ ROAD, BARA- 263148	256 Kbps	256 Kbps		

46	MPLS VPN	030- DEVIDHURA- [030]	JAGDA MBA MARKET , DEVIDH URA- 262580	256 Kbps	256 Kbps		
47	MPLS VPN	031- MORADABAD -[031]	C-36, GANDHI NAGAR, MORAD ABAD - 244001	512 Kbps	256 Kbps		
48	MPLS VPN	032-P K ROAD-NEW DELHI-[032]	33, FIRST FLOOR, PANCH KUIAN ROAD, NEW DELHI- 110001	2 Mbps	2 Mbps		
49	MPLS VPN	033- MUZAFFAR NAGAR-[033]	OPPOSIT E OF SANDEE P CINEMA , COURT ROAD, MUZAFF ARNAG AR- 251001	512 Kbps	256 Kbps		
50	MPLS VPN	034- RANIBAGH- [034]	PRADEE P BHAWA N, NAINIT AL ROAD, RANIBA GH- 263126	256 Kbps	256 Kbps		
51	MPLS VPN	035- BANLEKH- [035]	VILLAG E & P.O.- BANLEK H VIA DOPHA DH, BANLEK H-263634	256 Kbps	256 Kbps		

52	MPLS VPN	036-RAMPUR-[036]	HATHIK HANA CHAUR AHA, SHAHBA D GATE, NEAR NAGAR PALIKA, RAMPUR-244901	512 Kbps	256 Kbps		
53	MPLS VPN	037-TALLITAL NAINITAL-[037]	HOTEL EMPIRE ANNEXE , TALLITAL, NAINITAL-263002	512 Kbps	256 Kbps		
54	MPLS VPN	038-LAJPAT NAGAR-[038]	40-41, PUSHPA MARKET , CENTRAL MARKET , LAJPAT NAGAR, NEW DELHI-110024	512 Kbps	256 Kbps		
55	MPLS VPN	039-SHALIMAR BAGH-DELHI-[039]	B.H. BLOCK, BHAGWATI SADAN, NEAR SHALIMAR BAGH POLICE STATION, SHALIMAR BAGH, NEW DELHI-110088	512 Kbps	256 Kbps		

56	MPLS VPN	040-TILAK NAGAR-DELHI-[040]	8/33, CHAUK HANDI ROAD, TILAK NAGAR, NEW DELHI-110018	512 Kbps	256 Kbps		
57	MPLS VPN	041-MAHANAGAR LUCKNOW-[041]	M-6, GOLE MARKET , MAHAN AGAR, LUCKNOW-226006	512 Kbps	256 Kbps		
58	MPLS VPN	042-CHAUMEL-[042]	VILLAGE CHHATOLI, CHAUMEL BAZAR, CHAUMEL-262525	256 Kbps	256 Kbps		
59	MPLS VPN	043-BHINGRARA-[043]	VILLAGE & P.O.-BHINGRARA-262528	256 Kbps	256 Kbps		
60	MPLS VPN	044-SRIPURBICHA-[044]	VILLAGE & P.O.-SRIPURBICHA TEHSIL KHATIMA-262308	256 Kbps	256 Kbps		
61	MPLS VPN	045-RUDRAPUR-[045]	D-1,D-2, VIIB, NEAR JANTA INTER COLLEGE, CIVIL LINES, RUDRAPUR-263153	512 Kbps	256 Kbps		

62	MPLS VPN	046-JASPUR-[046]	MOHAL LA BHOOP SINGH, PT. POORA NANAD COLLEG E ROAD, JASPUR, US NAGAR- 244712	256 Kbps	256 Kbps		
63	MPLS VPN	047-PATPARGANJ DELHI-[047]	A-1/1, Acharya niketan, Mayur Vihar Phase – I, Delhi – 110091	512 Kbps	256 Kbps		
64	MPLS VPN	048-BULANDSHA HAR-[048]	H. No. – 1032, OPPOSIT E OF JANTA INTER COLLEG E, ADJACE NT OF RAJA BABU PARK, CIVIL LINES, BULAN DSHSHA R-203001	512 Kbps	256 Kbps		
65	MPLS VPN	049-PITAMPURA- NEW DELHI-[049]	PLOT NO.-03, SHATAB DI HOUSE, COMME RCIAL COMPLE X, ROHIT KUNJ, PITAMP URA	512 Kbps	256 Kbps		

			(WEST), NEW DELHI- 110034				
66	MPLS VPN	050-K D ROAD HALDWANI- [050]	NEAR KAPIL DHARA MSHAL A, KALAD HUNGI ROAD, PILIKOT HI, HALDW ANI- 263139	512 Kbps	256 Kbps		
67	MPLS VPN	051- GURGAON- [051]	S.C.O.-13, SECTOR- 15, PART-II, GURGA ON- 122001	512 Kbps	256 Kbps		
68	MPLS VPN	052- GADARPUR- [052]	GROVER MARKET , NEAR GURU NANAK MARKET , GADAR PUR- 263152	256 Kbps	256 Kbps		

69	MPLS VPN	053-IP EXTENTION- DELHI-[053]	112 & 114, FIRST FLOOR, R. G. SQUARE , NEAR MAX BALAJI HOSPIT AL, I.P. EXTENSI ON, DELHI- 110092	512 Kbps	256 Kbps		
70	MPLS VPN	054-VAISHALI GHAZIABAD- [054]	SECTOR- 04, PLOT NO.-04, COMME RCIAL CENTRE, MAIN ROAD, VAISHA LI, GHAZIA BAD- 201010	256 Kbps	256 Kbps		
71	MPLS VPN	055- KOTDWAR- [055]	JAIN MANDIR , NEAR MALVIY A UDYAN, BADRIN ATH ROAD, KOTDW AR- 246149	256 Kbps	256 Kbps		
72	MPLS VPN	056- MBPGCOLLE GE HALDWANI- [056]	M. B. G. P. G. COLLEG E CAMPUS , NAINIT AL ROAD, HALDW ANI- 263141	256 Kbps	256 Kbps		

73	MPLS VPN	057- DEHRADUN- [057]	15-B, RAJPUR ROAD (NEAR UNIVER SAL PETROL PUMP), DEHRA DUN- 248001	2 Mbps	512 Kbps		
74	MPLS VPN	058- ASHIANA- LUCKNOW- [058]	D-3/447, SECTOR- H, LDA COLON Y, KANPU R ROAD, ASHIAN A, LUCKN OW- 226012	256 Kbps	256 Kbps		
75	MPLS VPN	059- PAPPANKAL A NEW DELHI-[059]	29/2, GROUN D FLOOR, VIJAY ENCLAV E, PALAM DABARI ROAD, PAPPAN KALAN, NEW DELHI- 110045	256 Kbps	256 Kbps		
76	MPLS VPN	060- SAHARANPU R-[060]	2A, CHURC H COMPO UND, BAJORIA ROAD, SAHARA NPUR- 247001	256 Kbps	256 Kbps		

77	MPLS VPN	061-NAJIBABAD-[061]	MOHAL LA-MAQBARA, GURUDWARA ROAD, NAJIBABAD-246763	256 Kbps	256 Kbps		
78	MPLS VPN	062-PANIPAT-[062]	Behind Gaushala Mandi, Gohana Road, Panipat, Haryana - 132103	512 Kbps	256 Kbps		
79	MPLS VPN	063-SECTOR 50 NOIDA-[063]	B-1/42, CENTRAL MARKET , SECTOR-50, NOIDA-201301	256 Kbps	256 Kbps		
80	MPLS VPN	064-FARIDABAD-[064]	D.S.S.-10, HUDDA MARKET , SHOPPING CENTER, SECTOR-29, FARIDABAD-121008	256 Kbps	256 Kbps		
81	MPLS VPN	065-VIKAS MARG-NEW DELHI-[065]	04, JAGRATI ENCLAVE, VIKAS MARG, NEW DELHI-110092	256 Kbps	256 Kbps		

82	MPLS VPN	066-NEWASHOK NAGAR-DELHI-[066]	B-1/63-64, NEW KONDLI, KIRANA MARKET , DELHI-110096	256 Kbps	256 Kbps		
83	MPLS VPN	067-HARIDWAR-[067]	SHREE CHETA N JYOTI ASHRAM, BHUPAT WALA, HARIDWAR-249401	512 Kbps	256 Kbps		
84	MPLS VPN	068-NADAN MAHAL LUCKNOW-[068]	NEAR M.D. SHUKLA COLLEGE, NADAN MAHAL ROAD, LUCKNOW-226003	256 Kbps	256 Kbps		
85	MPLS VPN	069-JAIPUR - BANI PARK - [069]	A-78/79, SHUBHASHI NAGAR, SHOPPING CENTER, BANI PARK, JAIPUR-302016	512 Kbps	256 Kbps		
86	MPLS VPN	070-NOIDA SECTOR 18-[070]	N-26, NEAR LAL PATHOLOGY LAB, SECTOR-18, NOIDA-201301	256 Kbps	256 Kbps		

87	MPLS VPN	071-RAMPUR ROAD HALDWANI-[071]	PREM BHAWAN, NEAR TRANSPORT NAGAR, MANPUR WEST, RAMPUR ROAD, HALDWANI-263139	512 Kbps	256 Kbps		
88	MPLS VPN	072-AGRA-[072]	BANSAL COMPLEX, KENDRIYA HINDI SANSTHAN ROAD, NEAR GANPATI APARTMENTS, KHANDARI BY-PASS, AGRA-282005	512 Kbps	256 Kbps		
89	MPLS VPN	073-ROHINI - NEW DELHI-[073]	E-4, JAIN BHARTI MODEL SCHOOL , SECTOR-16, ROHINI, DELHI-110089	256 Kbps	256 Kbps		
90	MPLS VPN	075-PRABHAT NGR BAREILLY-[075]	02, PRABHAT NAGAR, BAREILLY-243122	256 Kbps	256 Kbps		

91	MPLS VPN	076-ROHTAK ROAD DELHI-[076]	M-127, GURU HAR KISHAN NAGAR, PASCHIM VIHAR, ROHTAK ROAD, DELHI-110087	256 Kbps	256 Kbps		
92	MPLS VPN	077-ROORKEE-[077]	100/1, NEHRU NAGAR, OPPOSITE OF SUB-JAIL, ROORKEE E-247667	256 Kbps	256 Kbps		
93	MPLS VPN	078-VIKASNAGAR-DEHRADUN-[078]	MAIN ROAD, NEAR SBI, VIKASNAGAR-248198	256 Kbps	256 Kbps		
94	MPLS VPN	079-GOMTI NAGAR-LUCKNOW-[079]	1/8 VIKRAM KHAND, BHATIA PLAZA, PATRAK ARPURAM, GOMTINAGAR, LUCKNOW-226010	256 Kbps	256 Kbps		
95	MPLS VPN	SERVICE BRANCH DELHI-[80]	33, FIRST FLOOR, PANCH KUIAN ROAD, NEW DELHI-110001	2 Mbps	512 Kbps		

96	MPLS VPN	081-BILASPUR RAMPUR-[081]	NEAR SHIVBA GH MANDI, BILASPU R-244921	256 Kbps	256 Kbps		
97	MPLS VPN	082-LOWER MALL RD- ALMORA- [082]	PANT SADAN, LOWER MALL ROAD, ALMOR A-263601	512 Kbps	256 Kbps		
98	MPLS VPN	083-SRI NAGAR-[083]	NEAR DALMIY A DHARA MSHAL A, BADRIN ATH ROAD, SRINAG AR- 246174	512 Kbps	256 Kbps		
99	MPLS VPN	084-BHOOR MOH KHATIMA- [084]	SHAH SADAN, SITARG ANJ ROAD, BHOOR MAHOLI A, KHATIM A-263208	256 Kbps	256 Kbps		
100	MPLS VPN	085- DHARCHULA -[085]	TEHSIL ROAD, DHARC HULA- 262545	256 Kbps	256 Kbps		
101	MPLS VPN	086- JOSHIMATH- [086]	SHAILJA GUEST HOUSE, G.M.V.N. ROAD, GANDHI GROUN D, JOSHIM ATH- 246443	256 Kbps	256 Kbps		

102	MPLS VPN	087-KARNAPRAYAG-[087]	GEETA BHAWAN, KARNPRAYAG-246444	256 Kbps	256 Kbps		
103	MPLS VPN	088-NEW TEHRI-[088]	F&G-03, OPEN MARKET , COLLEGE ROAD, BAURARI, NEW TEHRI-249001	256 Kbps	256 Kbps		
104	MPLS VPN	089-KAPKOT-[089]	NEAR TEHSIL DATE, TEHSIL ROAD, KAPKOT-263632	256 Kbps	256 Kbps		
105	MPLS VPN	090-BHOWALI-[090]	RAMGARH ROAD, BHOWALI-263132	256 Kbps	256 Kbps		
106	MPLS VPN	091-SIDCUL PANTNAGAR-[091]	OPPOSITE LIC BUILDING, AWAS VIKAS, RUDRAPUR-263153	256 Kbps	256 Kbps		
107	MPLS VPN	092-Doiwala-[092]	RISHIKESH-HARIDWAR ROAD, DOIWALA-248140	256 Kbps	256 Kbps		

108	MPLS VPN	093- RUDRAPRAY AG-[093]	MUNICI PAL BOARD COMME RCIAL COMPLE X, NEAR NEW BUS STAND, RUDRAP RAYAG- 246171	256 Kbps	256 Kbps		
109	MPLS VPN	094- SITARGANJ- [094]	KICHHA ROAD, SITARG ANJ- 262405	256 Kbps	256 Kbps		
110	MPLS VPN	095- TANAKPUR- [095]	501/2, G. B. PANT MARG, WARD NO.-01, TANAKP UR- 262309	256 Kbps	256 Kbps		
111	MPLS VPN	096- DWARAHAT- [096]	OM BHAWA N, RANIKH ET- BADRIN ATH ROAD, DWARA HAT- 263653	256 Kbps	256 Kbps		
112	MPLS VPN	097- JWALAPUR HARIDWAR- [097]	46, VIVEK VIHAR, RANIPU R MORE, JWALAP UR, HARID WAR- 249407	256 Kbps	256 Kbps		
113	MPLS VPN	098-PAURI GARHWAL- [098]	UPPER BAZAR, PAURI- 246001	256 Kbps	256 Kbps		

114	MPLS VPN	099-RISHIKESH-[099]	46/1, TILAK ROAD, RISHIKE SH-249201	256 Kbps	256 Kbps		
115	MPLS VPN	100-HARIDWAR RD DEHRADUN-[100]	NEAR CITY BANQUET HALL, HARIDWAR ROAD, DEHAR DUN-248001	256 Kbps	256 Kbps		
116	MPLS VPN	101-SAHARANPUR ROAD DDN-[101]	02, PREETI ENCLAVE, SHIMLA BY-PASS, SAHARANPUR ROAD, MAJRA, DEHRA DUN-248171	256 Kbps	256 Kbps		
117	MPLS VPN	102-MUSSORIE-[102]	SHOP NO. 08, CLOCK TOWER, LANDHAUR BAZAR, MUSSORIE-248179	256 Kbps	256 Kbps		
118	MPLS VPN	103-Arjunpur Haldwani-[103]	BAREILLY ROAD, GAORA PARAO, P.O.-ARJUNPUR, HALDWANI-263139	256 Kbps	256 Kbps		

119	MPLS VPN	104- MAHESHPUR A BAZPUR - [104]	MAHESP URA- DORAH A, BAZPUR -262401	256 Kbps	256 Kbps		
120	MPLS VPN	105-SURHERA DELHI -[105]	VILLAG E & P.O.- SURHER A, NAZAF GARH, NEW DELHI- 110043	256 Kbps	256 Kbps		
121	MPLS VPN	106- FARIDPUR BAREILLY- [106]	NEAR SHANTI BARAT GHAR, MAIN ROAD, N.H.-24, FARIDP UR, BAREILL Y-243503	256 Kbps	256 Kbps		
122	MPLS VPN	107-KOTPUTLI JAIPUR-[107]	NEAR MAIN CHAUR AHA, L.B.S. COLLEG E ROAD, N.H.-08, KOTPUT LI-303108	256 Kbps	256 Kbps		
123	MPLS VPN	108- LOHARIYASA L HALDWANI- [108]	LOHARI ASAL MALLA, KATHG HARIA, HALDW ANI- 263139	256 Kbps	256 Kbps		
124	MPLS VPN	109-BARRA KANPUR-[109]	HIG-07, NEAR KABIR HOSPIT AL, BARRA- IL,	256 Kbps	256 Kbps		

			BARRA-208027				
125	MPLS VPN	110-DWARKA NEW DELHI - [110]	G-9, GROUN D FLOOR, PLOT NO.-01, POCKET -07, KRISHA N TOWER - II, SECTOR- 12, DWARK A, NEW DELHI- 110075	256 Kbps	256 Kbps		
126	MPLS VPN	111- KAMALUAGA NJA-[111]	VILLAG E NARSIN GH TALLA, P.O.- KAMAL UWAGA NJA, KAMAL UWAGA NJA ROAD, HALDW ANI- 263139	256 Kbps	256 Kbps		
127	MPLS VPN	112-I I M ROAD- LUCKNOW- [112]	41/42, RAIPUR, I.I.M. ROAD, LUCKN OW- 226013	256 Kbps	256 Kbps		

128	MPLS VPN	113-VASANT VIHAR DDN- [113]	FIRST FLOOR, COMME RCIAL COMPLE X, 49, INDIRA NAGAR, VASANT VIHAR, DEHRA DUN- 248001	256 Kbps	256 Kbps		
129	MPLS VPN	114-DILSHAD GARDEN-[114]	C-16, DILSHA D COLON Y, NEAR MRIGNA YANI CHOWK, DILSHA D GARDE N, DELHI- 110095	256 Kbps	256 Kbps		
130	MPLS VPN	115-AMBALA- [115]	02, OPPOSIT E NEW GRAIN MARKET , HISSAR ROAD, AMBAL A CITY, AMBAL A-133001	256 Kbps	256 Kbps		
131	MPLS VPN	116-KARNAL- [116]	S.C.O. 31,32,33, MUGHA L CANAL MARKET , KARNA L-132001	256 Kbps	256 Kbps		

132	MPLS VPN	117-BARHANI BAZPUR-[117]	ANAND FARM, VILLAGE & P.O.- BARHANI, BAZPUR -262401	256 Kbps	256 Kbps		
133	MPLS VPN	118- CHAKRATA RD DEHRADUN- [118]	CHAGAN LAL BUILDING, PANDIT WARI, CHAKRATA ROAD, DEHRADUN- 248001	256 Kbps	256 Kbps		
134	MPLS VPN	119-BIJNOR- [119]	ANKUR HEIGHTS, CIVIL LINES, KIRATPUR ROAD, BIJNOR- 246701	256 Kbps	256 Kbps		
135	MPLS VPN	120-GREATER NOIDA-[120]	NS-48, SECTOR P-4, BUILDER AREA, NEAR JALVAYU VIHAR, GREATER NOIDA- 201308	256 Kbps	256 Kbps		
136	MPLS VPN	121- JAGATPUR GAULAPAR- [121]	VILLAGE JAGATPUR, P.O.- KUNWARPUR, HALDWANI- 263139	256 Kbps	256 Kbps		

137	MPLS VPN	122-TAPOVAN - RISHIKESH	VILLAGE- TAPOVAN, BADRINATH ROAD, OPPOSITE GANGA HOTEL, P.O.- SARAI, RISHIKESH- 249192	256 Kbps	256 Kbps		
138	MPLS VPN	123- DHAMPUR BIJNOR-[123]	Om House, Near PIR Teachers Colony,N H - 74, Dhampur , Distt. Bijnor, Uttar Pradesh- 246761	256 Kbps	256 Kbps		
139	MPLS VPN	124- DAMUADHUNGA HALDWANI- [124]	Krishna Kunj, Opp. Inspiration School,Village - Damuadhunga Bandobasti, Kathgodam, Haldwani, Distt. Nainital, Uttarakhand - 263139	256 Kbps	256 Kbps		

140	MPLS VPN	125-RAJA PARK JAIPUR- [125]	D-67, Govind Marg, Raja Park, Ice Factory, Adarsh Nagar, Jaipur, Rajasthan -302004	256 Kbps	256 Kbps		
141	MPLS VPN	126-SANJAY NAGAR GHAZIABAD- [126]	D11, Sanjay Nagar, Ghaziaba d, Uttar Pradesh - 201002	256 Kbps	256 Kbps		
142	MPLS VPN	127-BANBASA CHAMPAWA T	Petrol Pump Compou nd, Khatima Road, Banbasa, Distt. Champa wat, Uttarakh and - 262310	256 Kbps	256 Kbps		
143	MPLS VPN	128-PUROLA UTTARKASHI	Hotel Shubham Palace, Main Market, Kumola Road, Purola, Distt. Uttarkas hi, Uttarakh and - 249185	256 Kbps	256 Kbps		

144	MPLS VPN	129-MORADABAD ROAD KASHIPUR-[129]	Ashoka Complex, Moradabad Road, Near Bank of Baroda, Kashipur, Distt. Udham Singh Nagar, Uttarakh and - 244713	256 Kbps	256 Kbps		
145	MPLS VPN	130-KANKAR KHERA MEERUT-[130]	489, Om Nagar, North Sardhana Road, Opp. Canara Bank, Kankar Khera - Meerut, Uttar Pradesh- 250001	256 Kbps	256 Kbps		
146	MPLS VPN	131-KANTH ROAD MORADABAD -[131]	A-6, Deendayal Nagar, Phase-I, Sai Mandir Road, Kanth Road - Moradabad, Distt. Moradabad, Uttar Pradesh- 244001	256 Kbps	256 Kbps		

147	MPLS VPN	132-BALLABHGA RH-FARIDABAD-[132]	FCA - 54, Near IDBI Bank, 100 Ft. Road, Shyam Colony, Ballabhgarh - Faridabad, Haryana - 121004	256 Kbps	256 Kbps		
148	MPLS VPN	133-SOHNA ROAD-GURUGRAM-[133]	Shop No. 5, Well Don Tech Park, Sohna Road - Gurugram, Haryana-122018	256 Kbps	256 Kbps		
149	MPLS VPN	134-BHURARANI-RUDRAPUR-[134]	Bhura Rani Road, Near H.P. Gas Agency, Bhurani - Rudrapur, Distt. Udham Singh Nagar, Uttarakhand-263153	256 Kbps	256 Kbps		
150	MPLS VPN	135-NAGINA-BIJNOR-[135]	Near Bank of India, Station Road, Nagina, Distt. Bijnor, Uttar Pradesh-246762	256 Kbps	256 Kbps		

151	MPLS VPN	136- VIKRAMPUR- BAZPUR-[136]	Village - Vikrampur, Keshowala Mod, Bazpur, Distt. Udham Singh Nagar, Uttarakh and- 262401	256 Kbps	256 Kbps		
152	MPLS VPN	137-SHIMLA PISTORE- RUDRAPUR- [137]	Village - Kotha, Shimla Pistore, P.O. Lalpur, Tehsil - Rudrapur, Distt. - Udham Singh Nagar, Uttarakh and - 263148	256 Kbps	256 Kbps		
153	MPLS VPN	138-SATWAN BUJURG- SHAHJAHAN PUR-[138]	Village - Satwan Bujurg, P.O. - Shahbaznagar, Tehsil - Sadar, Distt. - Shahjahanpur, Uttar Pradesh - 242001	256 Kbps	256 Kbps		
154	MPLS VPN	139- DINESHPUR- RUDRAPUR- [139]	Main Bazar, Gular Bhoj Road, Dineshpur - Rudrapur, U. S. Nagar,	256 Kbps	256 Kbps		

			Uttarakh and - 263160				
155	MPLS VPN	140- NANAKMATT A- RUDRAPUR- [140]	Shri Gyan Ganga Bhawan, Near Police Station, Sitarganj Road, Nanakma tta, Distt. - Udham Singh Nagar - 232311	256 Kbps	256 Kbps		
156	MPLS VPN	141-PAWAN VIHAR- BAREILLY	2- A,PAWA N VIHAR COLON Y,NEAR PNB CIRCLE OFFICE, PILIBHIT BYPASS ROAD,D ISTT. BAREILL Y,UP	128 Kbps	256 Kbps		
157	MPLS VPN	142-CANAL ROAD DEHRADUN- [142]	28/5 JAKHAN ,CANAL ROAD,D EHRAD UN,UTT ARAKH AND	128 Kbps	256 Kbps		

158	MPLS VPN	143- PERUMADAR A RAMNAGAR	ADJACE NT TO ALLAH ABAD BANK,M AIN ROAD,M AIN MARKET ,PEERU MADAR A,RAMN AGAR,DI STT. NAINIT AL,UTT ARAKH AND	128 Kbps	256 Kbps		
159	MPLS VPN	144- UDAYLALPU R HALDWANI	DAYLAL PUR NAYAK, NEAR PAL ENGG COLLEG E,MADH OPURA M,HALD WANI,DI STT NAINIT AL,UTT ARAKH AND	128 Kbps	256 Kbps		
160	MPLS VPN	145- SAHASTRAD HARA ROAD DEHRADUN	Khasra No 120 &. 121, Village, Adhoiwa la, pargana, parwa, Dehradu n,Uttarak hand	128 Kbps	256 Kbps		

161	MPLS VPN	146-JAIL ROAD HALDWANI	JAIL ROAD CHAUR AHA,KA LADHU NGI ROAD,H ALDWA NI,DISTT NAINIT AL,UTT ARAKH AND	128 Kbps	256 Kbps		
162	MPLS VPN	Head Office Nainital-[999]	7 Oak Building, Mallital, Nainital	2 Mbps	2 Mbps		
163	MPLS VPN	Remote Data Center - Haldwani	RAILWA Y BAZAR, HALDW ANI- 263139	2 Mbps	2 Mbps		
164	MPLS VPN	Regional Office Noida	THE NAINIT AL BANK LTD., Regional Office, Naini Business Centre, 4th Floor, UPRNN Building, C- 20/1A/7, Sector 62, Noida - 201 309	4 Mbps	4 Mbps		
165	MPLS VPN	Regional Office Haldwani	HALDW ANI- 263139	2 Mbps	2 Mbps		

11.Section VI : Financial Bid Format

Summary : Supply, installation, testing and commissioning (SITC) of ICT infrastructure				
		(Price in Rs.)		
S.No	Description	Total Price for 5 years (excluding GST)	GST	Total Price (Including GST)
1	BOQ- DC-DR- Table A (Capex with 5 year warranty)			
2	BOQ- DC-DR- Table B (OPEX for 5 years) (a)			
3	BOQ- DC-DR- Table C (Subscription Services for 5 years) (b)			
4	BOQ – NDR Table D (Capex with 5 years warranty)			
5	BOQ- NDR- Table E (Subscription Services for 5 years) (c)			
6	Managed Services including Management and monitoring tools DC-DR-NDR (for 5 years) (d)			
7	Telecom (Subscription Services) (for -5- yrs) from Table F (e)			
8	One time Installation and commissioning charges for DC-DR-NDR			
9	One time Installation and commissioning charges for Telecom and SDWAN from Table F			
	Total Contract Value (All Inclusive) (for L1 Calculation)			
10	Amortization, Subscription, Telecom & Managed Services during Application implementation phase (X Months)			
11	AMC for Capex for 6th and 7th Year Table G (DC-DR-NDR)			
12	Subscription services for 6th and 7th Year Table H(DC-DR)			
13	Managed Services DC-DR-NDR (for 6th and 7th years)			
14	Telecom (One Time Cost - CPE + link installation) per branch for new branches			

Total contract value (Excluding GST/Other taxes) of all Amortized, subscriptions Services, Managed Services and telecom Opex (OPEX) should be further divided by the number of bank's branch/offices on per month basis. (Billing will be monthly). Minimum Branch will be 145.

S.No	Total OPEX contract value (Excluding GST) - 60 Months (a+b+c+d+e)(Refer table above)	Total OPEX / Month (B=A/60)	Total OPEX /Site/Month	Applicable discount (in percentage) for all sites when no. of branches/Offices increases from	Applicable discount (in percentage) for all sites when no. of branches/Offices increases from
1	(A)		(C=B/145) - SLAB1 (up to 150 sites)	151 to 175 Sites	176 to 200 Sites

Terms & conditions:

1. Currently bank has 145 Sites
2. The Bid Value shall be inclusive of all the installation, commissioning, testing and any other price that might be incurred by the Bidder for the performance of the contract
3. Bid will be evaluated on Total Contract Value(i.e. for -5- yrs) excluding Taxes. However GST shall be levied as per actuals as the time of invoicing.
4. CAPEX & OPEX ratio shall be reasonable and realistic, a bid may not be considered for Final Evaluation if the total CAPEX Value happens to be more than 60% of the overall bid value
5. Any new Branch will cost as (value of per branch as per slab)+telecom One time cost as line item 14 above
6. Deviation in the Quantity: Bank reserves the right to change the quantity to be supplied but within the overall deviation limit of 30% of the contract value. Bank also reserves the right to purchase Extra item, Substitute items as per site requirements up to the overall limit of 30% of the contract value. The overall deviation, Extra item or the substitute items taken together shall not exceed 30% of the contract value unless until it is mutually agreed by both the parties and a specific order is placed on the vendor in this regard.

Table A -BOQ-DC-DR(Capex with 5 years warranty)				(Price in Rs.)			
S.No	Description	Qty-DC	Qty-DR	Basic Unit rate	Total Price(excluding GST)	Total GST	Total Price (Including GST)
		(a)	(b)	(c)	(d)= (a+b)* (c)	(e)	(f)=(d)+(e)
1	Rack Servers - Server Type 1	7	6				
2	Rack Servers - Server Type 2	2	2				
3	Rack Servers - Server Type 3	2	2				
4	Rack Servers - Server Type 4	3	4				
5	Rack Servers - Server Type 5	1	0				
6	Rack Servers - Server Type 6	2	0				
7	Rack Servers - Server Type 7	1 Lot	1 Lot				
8	SAN Switch	2	2				
9	Primary Storage - Unified Storage with SSD 20 TB Usable Capacity	1	1				
10	Secondary Storage - Storage 80TB Usable for data backup	1	1				
11	Red Hat Enterprise Linux Server, Unlimited VMs - Latest Version	2	0				
12	Red Hat Enterprise Linux Server with High-Availability, Upto 2 VM's -Latest Version	20	18				
13	Microsoft Windows Operating System 2-Core Std Licenses for Server Type - 4	16	8				
14	Microsoft Active directory CAL License	1000	0				
15	Microsoft Windows Operating System 2 Core Std Licenses for Server Type - 6	36	0				
16	Microsoft Windows Operating System 2 Core Std Licenses for Server Type - 4	0	16				

17	Operating System License, Patch Management and Storage etc. for Server Type 7	1 Lot	1 Lot				
18	Virtualization Software Latest version	12	10				
19	Centralized Management for Virtualization software Latest Version	1	1				
20	Oracle Virtual Machine Latest version (Server Type -1 & Type 3)	5	4				
21	Enterprise Class Backup Software	1 Lot	0				
22	JBoss Enterprise Application Platform	51 Cores	0				
23	JBoss Web Server	30 Cores	0				
24	Tape Library	1	0				
	Total Price (Rs.)						

Table B -BOQ-DC-DR(OPEX)		(Price in Rs.)													
-	-			Year 1		Year 2		Year 3		Year 4		Year 5			
S.No	Description	Qty-DC	Qty-DR	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Total GST	Total Price (Including GST)
		(a)	b)	(c)	(d)=(a+b)* (c)	(e)	(f)=(a+b)* (e)	(g)	(h)=(a+b)* (g)	(i)	(j)=(a+b)* (i)	(k)	(l)=(a+b)* (k)	(m)	(n)=(d)+(f)+(h)+(j)+(l)+(m)
1	Physical firewall NGFW with UTM (IPS/IDS, AV Gateway, Sandboxing) External	2	2												
2	Physical firewall with IPS	2	2												
3	Core Switch 48 port	2	2												
4	Access Switch	4	4												
5	Management Switch	2	2												
6	Staging Switch	2	2												
7	DR Automation Software Solution	0	1 Lot												

8	Antivirus / Host IPS Solution (for all Physical and virtual servers Proposed)	1 Lot	1 Lot												
9	End Point Security	1500	0												
10	Privileged Identity Management	20	0												
11	Database Activity Monitoring	10	10												
12	Multi-Factor Authentication with dedicated Solution in High- availability	1020	0												
13	Server Load Balancer with Web Application Firewall	2	2												
14	AAA Solution	1	0												
	Total Price (Rs.)														

Table C -BOQ- DC-DR- (Subscription)				(Price in Rs.)											
-	-			Year 1		Year 2		Year 3		Year 4		Year 5			
S.No	Description	Qty- DC	Qty- DR	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Basic Unit rate	Total Price (excl. GST)	Total GST	Total Price (Incl. GST)
		(a)	(b)	(c)	(d)= (a+b) * (c)	(e)	(f)= (a+b) * (e)	(g)	(h)= (a+b) * (g)	(i)	(j)= (a+b) * (i)	(k)	(l)= (a+b) * (k)	(m)	(n)=(d)+(f)+(h)+(j)+(l)+(m)
1	Cross Connect of 100 Mbps	1	1												
2	Infrastructu re Hosting Services Racks	3	3												
3	Managed Services and ITSM Software for proposed solution	1 lot	1 lot												
4	Vulnerabilit y	20	0												

	Assessment Service														
5	Penetration Testing Service	10	0												
6	DDOS 1Gbps Mitigation at ILL	1	1												
	Total Price (Rs.)														

Table D BOQ - NDR (Capex)			(Price in Rs.)			
S.No	Description	Qty	Basic Unit rate	Total Price(excluding GST)	Total GST	Total Price (Including GST)
		(a)	(b)	(c)= (a*b)	(d)	(e)=(c)+(d)
1	Access Switch	1				
2	SAN Switch	1				
3	Primary Storage - Unified Storage with SSD 20 TB Usable Capacity	1				
	Total Price (Rs.)					

Table E - BOQ- NDR (Subscription)		(Price in Rs.)												
-	-		Year 1		Year 2		Year 3		Year 4		Year 5			
S.No	Description	Qty- NDR	Basic Unit rate	Total Price	Basic Unit rate	Total Price	Basic Unit rate	Total Price	Basic Unit rate	Total Price	Basic Unit rate	Total Price	Total GST	Total Price (Including GST)
		(a)	(b)	(excluding GST) (c)= (a*b)	(d)	(excluding GST) (e)= (a*d)	(f)	(excluding GST) (g)= (a*f)	(h)	(excluding GST) (i)= (a*h)	(j)	(excluding GST) (k)= (a*j)	(l)	(m)=(c)+(e)+(g)+(i)+(k)+(l)
1	Infrastructure Hosting Services Racks	1												
2	Managed Services and ITSM Software for proposed solution	1												
3	Cross Connect of 100 Mbps	1												
	Total Price (Rs.)													

Table F -Telecom								(Price in Rs.)						
						Proposed Mode of Connectivity		Link 1		Link 2				
S. NO.	Product	Branch Name	Branch / Location Address	Link 1 Bandwidth	Link 2 Bandwidth	Link 1	Link 2	OTC (a)	Monthly (c)	OTC (b)	Monthly (d)	Total OTC (a+b)	Total Monthly e=(c+d)	Total Price (e*60)
1	MPLS VPN	MPLS at DC		45 Mbps	45 Mbps									
2	MPLS VPN	MPLS at DR		45 Mbps	45 Mbps									
3	ILL	Internet Lease Line @DC with 1 Gig DDoS		10 Mbps	10 Mbps									
4	ILL	Internet Lease Line @DR with 1 Gig DDoS		10 Mbps	10 Mbps									
5	P2P	Point to Point link between DC to DR		22 Mbps	22 Mbps									
6	P2P	Point to Point link between proposed DC to proposed NDR		10 Mbps	10 Mbps									

7	P2P	Point to Point link between proposed NDR to proposed DR		10 Mbps	10 Mbps									
8	MPLS VPN	P2P Link from proposed DC to Existing SOC		4 Mbps	4 Mbps									
9	MPLS VPN	P2P Link from proposed DR to Existing SOC		4 Mbps	4 Mbps									
10	MPLS VPN	P2P Link from proposed NDR to Existing SOC		4 Mbps	4 Mbps									
11	MPLS VPN	P2P Link from proposed DC to RDC Haldwani		1 Mbps	1 Mbps									
12	MPLS VPN	P2P Link from proposed DC to RTGS Service Branch New Delhi		1 Mbps	1 Mbps									

13	P2P	Point to Point link between proposed DC to Switch at Mumbai	BKC Data Centre, Tata Communications Ltd., IDC-1, 3rd. Floor, B Building, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400053	256 Kbps	256 Kbps									
14	P2P	Point to Point link between proposed DR to Switch at Mumbai	BKC Data Centre, Tata Communications Ltd., IDC-1, 3rd. Floor, B Building, G Block, Bandra Kurla Complex, Bandra East, Mumbai 400053	256 Kbps	256 Kbps									

15	P2P	Point to Point link between proposed DC to Switch at Chennai	Tata Communications Ltd., 3rd. Floor, Videsh Sanchar Bhavan No.4, Swami Sivananda Salai, Chennai - 600002	256 Kbps	256 Kbps									
16	P2P	Point to Point link between proposed DR to Chennai	Tata Communications Ltd., 3rd. Floor, Videsh Sanchar Bhavan No.4, Swami Sivananda Salai, Chennai - 600002	256 Kbps	256 Kbps									
17	MPLS VPN	001-MALL ROAD NAINITAL-[001]	G. B. PANT ROAD, MALL ROAD, NAINITAL-263001	512 Kbps	256 Kbps									
18	MPLS VPN	002-ALMORA-[002]	L. R. SAH, ROAD, ALMORA-263601	512 Kbps	256 Kbps									

19	MPLS VPN	003- HALDWANI- [003]	RAILWAY BAZAR, HALDWANI- 263139	2 Mbps	512 Kbps									
20	MPLS VPN	004- RANIKHET- [004]	HERBERT HOUSE, P.O.- SADAR BAZAR, RANIKHET- 263645	512 Kbps	256 Kbps									
21	MPLS VPN	005- RAMNAGAR- [005]	BAJAJA LANE, RAMNAGAR -244715	512 Kbps	256 Kbps									
22	MPLS VPN	006- KASHIPUR- [006]	RAMNAGAR ROAD, KASHIPUR- 244713	512 Kbps	256 Kbps									
23	MPLS VPN	007- PITHORAGAR H-[007]	BANK ROAD, SILTHAM, PITHORAGA RH-262501	512 Kbps	256 Kbps									
24	MPLS VPN	008-KICHHA- [008]	YADAV FOODS LIMITED COMPOUND , RUDRAPUR ROAD, KICHHA- 263148	512 Kbps	256 Kbps									

25	MPLS VPN	009-BAZPUR- [009]	RAMRAJ ROAD, BAZPUR- 262401	512 Kbps	256 Kbps									
26	MPLS VPN	010-BHIMTAL- [010]	MALLITAL, BHIMTAL- 263136	512 Kbps	256 Kbps									
27	MPLS VPN	011- RAMGARH- [011]	MALLA RAMGARH, NAINITAL- 263137	256 Kbps	256 Kbps									
28	MPLS VPN	012- BAGESHWAR- [012]	DHAPOLA BUILDING, STATION ROAD, BAGESHWA R-263642	256 Kbps	256 Kbps									
29	MPLS VPN	013- LOHAGHAT- [013]	HANUMAN MANDIR ROAD, LOHAGHAT -262524	256 Kbps	256 Kbps									

30	MPLS VPN	014- KILAKHERA- [014]	GADARPUR- KASHIPUR ROAD, NEAR AMI CHAND PETROL PUMP, KILAKHERA -263150	256 Kbps	256 Kbps									
31	MPLS VPN	015- CHAMPAWA T-[015]	HOTEL MOUNT VIEW, BUS STATION, CHAMPAW AT-262523	256 Kbps	256 Kbps									
32	MPLS VPN	016- LALKUAN- [016]	KOTHARI BUILDING, MAIN MARKET, LALKUAN- 262402	256 Kbps	256 Kbps									
33	MPLS VPN	017-T N ROAD LUCKNOW- [017]	T.N. ROAD, NEAR HAZRATGA NJ, LUCKNOW- 226001	2 Mbps	512 Kbps									

34	MPLS VPN	018-BAHERI- [018]	NAGAR PALIKA COMPOUND , BAHERI- 243201	512 Kbps	256 Kbps									
35	MPLS VPN	019- BAILPARAO- [019]	RAMNAGAR ROAD, P.O.- BAILPARAO- 263140	512 Kbps	256 Kbps									
36	MPLS VPN	020- SHAHJAHAN PUR-[020]	285, CHANDRA BUILDING, SADAR BAZAR, SHAHJAH NPUR-242001	256 Kbps	256 Kbps									
37	MPLS VPN	021-PILIBHIT- [021]	TRIVENI MARKET, STATION ROAD, PILIBHIT- 262001	256 Kbps	256 Kbps									
38	MPLS VPN	022- BAREILLY- [022]	46, CIVIL LINES, BAREILLY- 243001	256 Kbps	256 Kbps									

39	MPLS VPN	023-KANPUR- [023]	18/54, THE MALL, OPPOSITE PHOOL BAGH, KANPUR - 208001	512 Kbps	256 Kbps									
40	MPLS VPN	024-NAGLA- [024]	NAGLA, P.O.-NAGLA DAIRY FARM-263149	512 Kbps	256 Kbps									
41	MPLS VPN	025-SITAPUR- [025]	14, JAIL ROAD, HASAN ALI CHAURAH , SITAPUR- 261001	256 Kbps	256 Kbps									
42	MPLS VPN	026- GHAZIABAD- [026]	35, ADDITIONA L SIHANI GATE SCHEME, NEAR NAVYUG MARKET, GHAZIABAD -201001	512 Kbps	256 Kbps									

43	MPLS VPN	027-MEERUT- [027]	FIRST FLOOR, CITY PLAZA, BACHHA PARK, BEGUM BRIDGE ROAD, MEERUT- 250001	512 Kbps	256 Kbps									
44	MPLS VPN	028- PAHARPANI- [028]	MORNAULA ROAD, PAHARPANI -263132	256 Kbps	256 Kbps									
45	MPLS VPN	029-BARA- [029]	KICHHA- SITARGANJ ROAD, BARA-263148	256 Kbps	256 Kbps									
46	MPLS VPN	030- DEVIDHURA- [030]	JAGDAMBA MARKET, DEVIDHURA -262580	256 Kbps	256 Kbps									
47	MPLS VPN	031- MORADABAD -[031]	C-36, GANDHI NAGAR, MORADABA D - 244001	512 Kbps	256 Kbps									

48	MPLS VPN	032-P K ROAD-NEW DELHI-[032]	33, FIRST FLOOR, PANCHKUI AN ROAD, NEW DELHI- 110001	2 Mbps	2 Mbps									
49	MPLS VPN	033- MUZAFFAR NAGAR-[033]	OPPOSITE OF SANDEEP CINEMA, COURT ROAD, MUZAFFAR NAGAR- 251001	512 Kbps	256 Kbps									
50	MPLS VPN	034- RANIBAGH- [034]	PRADEEP BHAWAN, NAINITAL ROAD, RANIBAGH- 263126	256 Kbps	256 Kbps									
51	MPLS VPN	035- BANLEKH- [035]	VILLAGE & P.O.- BANLEKH VIA DOPHADH, BANLEKH- 263634	256 Kbps	256 Kbps									

52	MPLS VPN	036-RAMPUR- [036]	HATHIKHA NA CHAURAH , SHAHBAD GATE, NEAR NAGAR PALIKA, RAMPUR- 244901	512 Kbps	256 Kbps									
53	MPLS VPN	037-TALLITAL NAINITAL- [037]	HOTEL EMPIRE ANNEXE, TALLITAL, NAINITAL- 263002	512 Kbps	256 Kbps									
54	MPLS VPN	038-LAJPAT NAGAR-[038]	40-41, PUSHPA MARKET, CENTRAL MARKET, LAJPAT NAGAR, NEW DELHI- 110024	512 Kbps	256 Kbps									

55	MPLS VPN	039- SHALIMAR BAGH-DELHI- [039]	B.H. BLOCK, BHAGWATI SADAN, NEAR SHALIMAR BAGH POLICE STATION, SHALIMAR BAGH, NEW DELHI- 110088	512 Kbps	256 Kbps									
56	MPLS VPN	040-TILAK NAGAR- DELHI-[040]	8/33, CHAUKHAN DI ROAD, TILAK NAGAR, NEW DELHI- 110018	512 Kbps	256 Kbps									
57	MPLS VPN	041- MAHANAGA R LUCKNOW- [041]	M-6, GOLE MARKET, MAHANAG AR, LUCKNOW- 226006	512 Kbps	256 Kbps									
58	MPLS VPN	042- CHAUMEL- [042]	VILLAGE CHHATOLI, CHAUMEL BAZAR, CHAUMEL- 262525	256 Kbps	256 Kbps									

59	MPLS VPN	043- BHINGRARA- [043]	VILLAGE & P.O.- BHINGRARA -262528	256 Kbps	256 Kbps									
60	MPLS VPN	044- SRIPURBICH WA-[044]	VILLAGE & P.O.- SRIPURBICH WA TEHSIL KHATIMA- 262308	256 Kbps	256 Kbps									
61	MPLS VPN	045- RUDRAPUR- [045]	D-1,D-2, VIII B, NEAR JANTA INTER COLLEGE, CIVIL LINES, RUDRAPUR- 263153	512 Kbps	256 Kbps									
62	MPLS VPN	046-JASPUR- [046]	MOHALLA BHOOP SINGH, PT. POORANAN AD COLLEGE ROAD, JASPUR, US NAGAR- 244712	256 Kbps	256 Kbps									

63	MPLS VPN	047- PATPARGANJ DELHI-[047]	A-1/1, Acharya niketan,Mayu r Vihar Phase - I, Delhi - 110091	512 Kbps	256 Kbps									
64	MPLS VPN	048- BULANDSHA HAR-[048]	H. No. - 1032, OPPOSITE OF JANTA INTER COLLEGE, ADJACENT OF RAJA BABU PARK, CIVIL LINES, BULANDSHS HAR-203001	512 Kbps	256 Kbps									
65	MPLS VPN	049- PITAMPURA- NEW DELHI- [049]	PLOT NO.-03, SHATABDI HOUSE, COMMERCIAL COMPLEX, ROHIT KUNJ, PITAMPURA (WEST), NEW DELHI- 110034	512 Kbps	256 Kbps									

66	MPLS VPN	050-K D ROAD HALDWANI- [050]	NEAR KAPIL DHARAMSH ALA, KALADHUN GI ROAD, PILIKOTHI, HALDWANI- 263139	512 Kbps	256 Kbps									
67	MPLS VPN	051- GURGAON- [051]	S.C.O.-13, SECTOR-15, PART-II, GURGAON- 122001	512 Kbps	256 Kbps									
68	MPLS VPN	052- GADARPUR- [052]	GROVER MARKET, NEAR GURU NANAK MARKET, GADARPUR- 263152	256 Kbps	256 Kbps									
69	MPLS VPN	053-IP EXTENTION- DELHI-[053]	112 & 114, FIRST FLOOR, R. G. SQUARE, NEAR MAX BALAJI HOSPITAL, I.P. EXTENSION, DELHI- 110092	512 Kbps	256 Kbps									

70	MPLS VPN	054-VAISHALI GHAZIABAD- [054]	SECTOR-04, PLOT NO.-04, COMMERCIAL CENTRE, MAIN ROAD, VAISHALI, GHAZIABAD -201010	256 Kbps	256 Kbps									
71	MPLS VPN	055- KOTDWAR- [055]	JAIN MANDIR, NEAR MALVIYA UDYAN, BADRINATH ROAD, KOTDWAR- 246149	256 Kbps	256 Kbps									
72	MPLS VPN	056- MBPGCOLLE GE HALDWANI- [056]	M. B. G. P. G. COLLEGE CAMPUS, NAINITAL ROAD, HALDWANI- 263141	256 Kbps	256 Kbps									

73	MPLS VPN	057- DEHRADUN- [057]	15-B, RAJPUR ROAD (NEAR UNIVERSAL PETROL PUMP), DEHRADUN -248001	2 Mbps	512 Kbps									
74	MPLS VPN	058- ASHIANA- LUCKNOW- [058]	D-3/447, SECTOR-H, LDA COLONY, KANPUR ROAD, ASHIANA, LUCKNOW- 226012	256 Kbps	256 Kbps									
75	MPLS VPN	059- PAPPANKAL A NEW DELHI-[059]	29/2, GROUND FLOOR, VIJAY ENCLAVE, PALAM DABARI ROAD, PAPPANKAL AN, NEW DELHI- 110045	256 Kbps	256 Kbps									

76	MPLS VPN	060- SAHARANPU R-[060]	2A, CHURCH COMPOUND , BAJORIA ROAD, SAHARANP UR-247001	256 Kbps	256 Kbps									
77	MPLS VPN	061- NAJIBABAD- [061]	MOHALLA- MAQBARA, GURUDWAR A ROAD, NAJIBABD- 246763	256 Kbps	256 Kbps									
78	MPLS VPN	062-PANIPAT- [062]	Behind Gaushala Mandi, Gohana Road, Panipat, Haryana – 132103	512 Kbps	256 Kbps									
79	MPLS VPN	063-SECTOR 50 NOIDA- [063]	B-1/42, CENTRAL MARKET, SECTOR-50, NOIDA- 201301	256 Kbps	256 Kbps									

80	MPLS VPN	064- FARIDABAD- [064]	D.S.S.-10, HUDDA MARKET, SHOPPING CENTER, SECTOR-29, FARIDABAD -121008	256 Kbps	256 Kbps									
81	MPLS VPN	065-VIKAS MARG-NEW DELHI-[065]	04, JAGRATI ENCLAVE, VIKAS MARG, NEW DELHI- 110092	256 Kbps	256 Kbps									
82	MPLS VPN	066- NEWASHOK NAGAR- DELHI-[066]	B-1/63-64, NEW KONDLI, KIRANA MARKET, DELHI- 110096	256 Kbps	256 Kbps									
83	MPLS VPN	067- HARIDWAR- [067]	SHREE CHETAN JYOTI ASHRAM, BHUPATWA LA, HARIDWAR- 249401	512 Kbps	256 Kbps									

84	MPLS VPN	068-NADAN MAHAL LUCKNOW- [068]	NEAR M.D. SHUKLA COLLEGE, NADAN MAHAL ROAD, LUCKNOW- 226003	256 Kbps	256 Kbps									
85	MPLS VPN	069-JAIPUR - BANI PARK - [069]	A-78/79, SHUBHASH NAGAR, SHOPPING CENTER, BANI PARK, JAIPUR- 302016	512 Kbps	256 Kbps									
86	MPLS VPN	070-NOIDA SECTOR 18- [070]	N-26, NEAR LAL PATHOLOG Y LAB, SECTOR-18, NOIDA- 201301	256 Kbps	256 Kbps									

87	MPLS VPN	071-RAMPUR ROAD HALDWANI- [071]	PREM BHAWAN, NEAR TRANSPORT NAGAR, MANPUR WEST, RAMPUR ROAD, HALDWANI- 263139	512 Kbps	256 Kbps									
88	MPLS VPN	072-AGRA- [072]	BANSAL COMPLEX, KENDRIYA HINDI SANSTHAN ROAD, NEAR GANPATI APARTMEN TS, KHANDARI BY-PASS, AGRA-282005	512 Kbps	256 Kbps									
89	MPLS VPN	073-ROHINI - NEW DELHI- [073]	E-4, JAIN BHARTI MODEL SCHOOL, SECTOR-16, ROHINI, DELHI- 110089	256 Kbps	256 Kbps									

90	MPLS VPN	075-PRABHAT NGR BAREILLY- [075]	02, PRABHAT NAGAR, BAREILLY- 243122	256 Kbps	256 Kbps									
91	MPLS VPN	076-ROHTAK ROAD DELHI- [076]	M-127, GURU HAR KISHAN NAGAR, PASCHIM VIHAR, ROHTAK ROAD, DELHI- 110087	256 Kbps	256 Kbps									
92	MPLS VPN	077- ROORKEE- [077]	100/1, NEHRU NAGAR, OPPOSITE OF SUB-JAIL, ROORKEE- 247667	256 Kbps	256 Kbps									
93	MPLS VPN	078- VIKASNAGAR -DEHRADUN- [078]	MAIN ROAD, NEAR SBI, VIKASNAGA R-248198	256 Kbps	256 Kbps									

94	MPLS VPN	079-GOMTI NAGAR- LUCKNOW- [079]	1/8 VIKRAM KHAND, BHATIA PLAZA, PATRAKARP URAM, GOMTINAG AR, LUCKNOW- 226010	256 Kbps	256 Kbps									
95	MPLS VPN	SERVICE BRANCH DELHI -[80]	33, FIRST FLOOR, PANCHKUI AN ROAD, NEW DELHI- 110001	2 Mbps	512 Kbps									
96	MPLS VPN	081-BILASPUR RAMPUR-[081]	NEAR SHIVBAGH MANDI, BILASPUR- 244921	256 Kbps	256 Kbps									
97	MPLS VPN	082-LOWER MALL RD- ALMORA- [082]	PANT SADAN, LOWER MALL ROAD, ALMORA- 263601	512 Kbps	256 Kbps									

98	MPLS VPN	083-SRI NAGAR-[083]	NEAR DALMIYA DHARAMSH ALA, BADRINATH ROAD, SRINAGAR- 246174	512 Kbps	256 Kbps									
99	MPLS VPN	084-BHOOR MOH KHATIMA- [084]	SHAH SADAN, SITARGANJ ROAD, BHOOR MAHOLIA, KHATIMA- 263208	256 Kbps	256 Kbps									
100	MPLS VPN	085- DHARCHULA -[085]	TEHSIL ROAD, DHARCHUL A-262545	256 Kbps	256 Kbps									
101	MPLS VPN	086- JOSHIMATH- [086]	SHAILJA GUEST HOUSE, G.M.V.N. ROAD, GANDHI GROUND, JOSHIMATH- 246443	256 Kbps	256 Kbps									

102	MPLS VPN	087- KARNAPRAY AG-[087]	GEETA BHAWAN, KARNPRAY AG-246444	256 Kbps	256 Kbps									
103	MPLS VPN	088-NEW TEHRI-[088]	F&G-03, OPEN MARKET, COLLEGE ROAD, BAURARI, NEW TEHRI- 249001	256 Kbps	256 Kbps									
104	MPLS VPN	089-KAPKOT- [089]	NEAR TEHSIL DATE, TEHSIL ROAD, KAPKOT- 263632	256 Kbps	256 Kbps									
105	MPLS VPN	090- BHOWALI- [090]	RAMGARH ROAD, BHOWALI- 263132	256 Kbps	256 Kbps									
106	MPLS VPN	091-SIDCUL PANTNAGAR -[091]	OPPOSITE LIC BUILDING, AWAS VIKAS, RUDRAPUR- 263153	256 Kbps	256 Kbps									

107	MPLS VPN	092-Doiwala- [092]	RISHIKESH- HARIDWAR ROAD, DOIWALA- 248140	256 Kbps	256 Kbps									
108	MPLS VPN	093- RUDRAPRAY AG-[093]	MUNICIPAL BOARD COMMERCIAL COMPLEX, NEAR NEW BUS STAND, RUDRAPRA YAG-246171	256 Kbps	256 Kbps									
109	MPLS VPN	094- SITARGANJ- [094]	KICHHA ROAD, SITARGANJ- 262405	256 Kbps	256 Kbps									
110	MPLS VPN	095- TANAKPUR- [095]	501/2, G. B. PANT MARG, WARD NO.- 01, TANAKPUR- 262309	256 Kbps	256 Kbps									

111	MPLS VPN	096- DWARAHAT- [096]	OM BHAWAN, RANIKHET- BADRINATH ROAD, DWARAHAT -263653	256 Kbps	256 Kbps									
112	MPLS VPN	097- JWALAPUR HARIDWAR- [097]	46, VIVEK VIHAR, RANIPUR MORE, JWALAPUR, HARIDWAR- 249407	256 Kbps	256 Kbps									
113	MPLS VPN	098-PAURI GARHWAL- [098]	UPPER BAZAR, PAURI- 246001	256 Kbps	256 Kbps									
114	MPLS VPN	099- RISHIKESH- [099]	46/1, TILAK ROAD, RISHIKESH- 249201	256 Kbps	256 Kbps									
115	MPLS VPN	100- HARIDWAR RD DEHRADUN- [100]	NEAR CITY BANQUET HALL, HARIDWAR ROAD, DEHARDUN -248001	256 Kbps	256 Kbps									

116	MPLS VPN	101- SAHARANPU R ROAD DDN- [101]	02, PREETI ENCLAVE, SHIMLA BY- PASS, SAHARANP UR ROAD, MAJRA, DEHRADUN -248171	256 Kbps	256 Kbps									
117	MPLS VPN	102- MUSSORIE- [102]	SHOP NO. 08, CLOCK TOWER, LANDHAUR BAZAR, MUSSOORIE- 248179	256 Kbps	256 Kbps									
118	MPLS VPN	103-Arjunpur Haldwani-[103]	BAREILLY ROAD, GAORAPAR AO, P.O.- ARJUNPUR, HALDWANI- 263139	256 Kbps	256 Kbps									
119	MPLS VPN	104- MAHESHPUR A BAZPUR - [104]	MAHESPUR A-DORAHA, BAZPUR- 262401	256 Kbps	256 Kbps									

120	MPLS VPN	105-SURHERA DELHI-[105]	VILLAGE & P.O.- SURHERA, NAZAFGAR H, NEW DELHI- 110043	256 Kbps	256 Kbps									
121	MPLS VPN	106- FARIDPUR BAREILLY- [106]	NEAR SHANTI BARAT GHAR, MAIN ROAD, N.H.- 24, FARIDPUR, BAREILLY- 243503	256 Kbps	256 Kbps									
122	MPLS VPN	107-KOTPUTLI JAIPUR-[107]	NEAR MAIN CHAURAH , L.B.S. COLLEGE ROAD, N.H.- 08, KOTPUTLI- 303108	256 Kbps	256 Kbps									
123	MPLS VPN	108- LOHARIYASA L HALDWANI- [108]	LOHARIASA L MALLA, KATHGHAR IA, HALDWANI- 263139	256 Kbps	256 Kbps									

124	MPLS VPN	109-BARRA KANPUR-[109]	HIG-07, NEAR KABIR HOSPITAL, BARRA-II, BARRA- 208027	256 Kbps	256 Kbps									
125	MPLS VPN	110-DWARKA NEW DELHI - [110]	G-9, GROUND FLOOR, PLOT NO.-01, POCKET-07, KRISHAN TOWER - II, SECTOR-12, DWARKA, NEW DELHI- 110075	256 Kbps	256 Kbps									
126	MPLS VPN	111- KAMALUAGA NJA-[111]	VILLAGE NARSINGH TALLA, P.O.- KAMALUW AGANJA, KAMALUW AGANJA ROAD, HALDWANI- 263139	256 Kbps	256 Kbps									
127	MPLS VPN	112-I I M ROAD- LUCKNOW- [112]	41/42, RAIPUR, I.I.M. ROAD, LUCKNOW- 226013	256 Kbps	256 Kbps									

128	MPLS VPN	113-VASANT VIHAR DDN- [113]	FIRST FLOOR, COMMERCIAL COMPLEX, 49, INDIRA NAGAR, VASANT VIHAR, DEHRADUN -248001	256 Kbps	256 Kbps									
129	MPLS VPN	114-DILSHAD GARDEN-[114]	C-16, DILSHAD COLONY, NEAR MRIGNAYA NI CHOWK, DILSHAD GARDEN, DELHI- 110095	256 Kbps	256 Kbps									
130	MPLS VPN	115-AMBALA- [115]	02, OPPOSITE NEW GRAIN MARKET, HISSAR ROAD, AMBALA CITY, AMBALA- 133001	256 Kbps	256 Kbps									

131	MPLS VPN	116-KARNAL- [116]	S.C.O. 31,32,33, MUGHAL CANAL MARKET, KARNAL- 132001	256 Kbps	256 Kbps									
132	MPLS VPN	117-BARHANI BAZPUR-[117]	ANAND FARM, VILLAGE & P.O.- BARHANI, BAZPUR- 262401	256 Kbps	256 Kbps									
133	MPLS VPN	118- CHAKRATA RD DEHRADUN- [118]	CHAGAN LAL BUILDING, PANDITWA RI, CHAKRATA ROAD, DEHRADUN -248001	256 Kbps	256 Kbps									
134	MPLS VPN	119-BIJNOR- [119]	ANKUR HEIGHTS, CIVIL LINES, KIRATPUR ROAD, BIJNOR- 246701	256 Kbps	256 Kbps									

135	MPLS VPN	120-GREATER NOIDA-[120]	NS-48, SECTOR P-4, BUILDER AREA, NEAR JALVAYU VIHAR, GREATER NOIDA- 201308	256 Kbps	256 Kbps									
136	MPLS VPN	121- JAGATPUR GAULAPAR- [121]	VILLAGE JAGATPUR, P.O.- KUNWARPU R, HALDWANI- 263139	256 Kbps	256 Kbps									
137	MPLS VPN	122-TAPOVAN - RISHIKESH	VILLAGE- TAPOVAN, BADRINATH ROAD, OPPOSITE GANGA HOTEL, P.O.-SARAI, RISHIKESH- 249192	256 Kbps	256 Kbps									

138	MPLS VPN	123- DHAMPUR BIJNOR-[123]	Om House, Near PIR Teachers Colony,NH - 74, Dhampur, Distt. Bijnor, Uttar Pradesh- 246761	256 Kbps	256 Kbps									
139	MPLS VPN	124- DAMUADHU NGA HALDWANI- [124]	Krishna Kunj, Opp. Inspiration School,Village - Damuadhung a Bandobasti, Kathgodam, Haldwani, Distt. Nainital, Uttarakhand - 263139	256 Kbps	256 Kbps									
140	MPLS VPN	125-RAJA PARK JAIPUR- [125]	D-67, Govind Marg, Raja Park, Ice Factory, Adarsh Nagar, Jaipur, Rajasthan- 302004	256 Kbps	256 Kbps									

141	MPLS VPN	126-SANJAY NAGAR GHAZIABAD- [126]	D11, Sanjay Nagar, Ghaziabad, Uttar Pradesh - 201002	256 Kbps	256 Kbps									
142	MPLS VPN	127-BANBASA CHAMPAWA T	Petrol Pump Compound, Khatima Road, Banbasa, Distt. Champawat, Uttarakhand - 262310	256 Kbps	256 Kbps									
143	MPLS VPN	128-PUROLA UTTARKASHI	Hotel Shubham Palace, Main Market, Kumola Road, Purola, Distt. Uttarkashi, Uttarakhand - 249185	256 Kbps	256 Kbps									

144	MPLS VPN	129- MORADABAD ROAD KASHIPUR- [129]	Ashoka Complex, Moradabad Road, Near Bank of Baroda, Kashipur, Distt. Udham Singh Nagar, Uttarakhand - 244713	256 Kbps	256 Kbps									
145	MPLS VPN	130-KANKAR KHERA MEERUT-[130]	489, Om Naga r, North Sardhana Road, Opp. Canara Bank, Kankar Khera - Meerut, Uttar Pradesh- 250001	256 Kbps	256 Kbps									

146	MPLS VPN	131-KANTH ROAD MORADABAD -[131]	A-6, Deendayal Nagar, Phase- I, Sai Mandir Road, Kanth Road - Moradabad, Distt. Moradabad, Uttar Pradesh- 244001	256 Kbps	256 Kbps									
147	MPLS VPN	132- BALLABHGA RH- FARIDABAD- [132]	FCA - 54, Near IDBI Bank, 100 Ft. Road, Shyam Colony, Ballabhgarh - Faridabad, Haryana - 121004	256 Kbps	256 Kbps									
148	MPLS VPN	133-SOHNA ROAD- GURUGRAM- [133]	Shop No. 5, Well Don Tech Park, Sohna Road - Gurugram, Haryana- 122018	256 Kbps	256 Kbps									

149	MPLS VPN	134- BHURARANI- RUDRAPUR- [134]	Bhura Rani Road, Near H.P. Gas Agency, Bhurarani – Rudrapur, Distt. Udham Singh Nagar, Uttarakhand- 263153	256 Kbps	256 Kbps									
150	MPLS VPN	135-NAGINA- BIJNOR-[135]	Near Bank of India, Station Road, Nagina, Distt. Bijnor, Uttar Pradesh- 246762	256 Kbps	256 Kbps									
151	MPLS VPN	136- VIKRAMPUR- BAZPUR-[136]	Village – Vikrampur, Keshowala Mod, Bazpur, Distt. Udham Singh Nagar, Uttarakhand- 262401	256 Kbps	256 Kbps									

152	MPLS VPN	137-SHIMLA PISTORE- RUDRAPUR- [137]	Village – Kotha, Shimla Pistore, P.O. Lalpur, Tehsil – Rudrapur, Distt. – Udham Singh Nagar, Uttarakhand - 263148	256 Kbps	256 Kbps									
153	MPLS VPN	138-SATWAN BUJURG- SHAHJAHAN PUR-[138]	Village – Satwan Bujurg, P.O. – Shahbaznagar , Tehsil – Sadar, Distt. – Shahjahanpur , Uttar Pradesh - 242001	256 Kbps	256 Kbps									
154	MPLS VPN	139- DINESHPUR- RUDRAPUR- [139]	Main Bazar, Gular Bhoj Road, Dineshpur – Rudrapur, U. S. Nagar, Uttarakhand - 263160	256 Kbps	256 Kbps									

155	MPLS VPN	140- NANAKMATT A- RUDRAPUR- [140]	Shri Gyan Ganga Bhawan, Near Police Station, Sitarganj Road, Nanakmatta, Distt. - Udhm Singh Nagar - 232311	256 Kbps	256 Kbps									
156	MPLS VPN	141-PAWAN VIHAR- BAREILLY	2-A,PAWAN VIHAR COLONY,NE AR PNB CIRCLE OFFICE,PILIB HIT BYPASS ROAD,DISTT . BAREILLY,U P	128 Kbps	256 Kbps									
157	MPLS VPN	142-CANAL ROAD DEHRADUN- [142]	28/5 JAKHAN,CA NAL ROAD,DEHR ADUN,UTTA RAKHAND	128 Kbps	256 Kbps									

158	MPLS VPN	143- PERUMADAR A RAMNAGAR	ADJACENT TO ALLAHABA D BANK,MAIN ROAD,MAIN MARKET,PE ERUMADAR A, RAMNAG AR, DISTT. NAINITAL, U TTARAKHA ND	128 Kbps	256 Kbps									
159	MPLS VPN	144- UDAYLALPU R HALDWANI	DAYLALPUR NAYAK, NEA R PAL ENGG COLLEGE, M ADHOPURA M, HALDWA NI, DISTT NAINITAL, U TTARAKHA ND	128 Kbps	256 Kbps									
160	MPLS VPN	145- SAHASTRAD HARA ROAD DEHRADUN	Khasra No 120 &. 121, Village, Adhoiwala, pargana, parwa, Dehradun, Utt arakhand	128 Kbps	256 Kbps									

161	MPLS VPN	146-JAIL ROAD HALDWANI	JAIL ROAD CHAURAH KALADHU NGI ROAD,HALD WANI,DISTT NAINITAL,U TTARAKHA ND	128 Kbps	256 Kbps									
162	MPLS VPN	Head Office Nainital-[999]	7 Oak Building, Mallital,Naini tal	2 Mbps	2 Mbps									
163	MPLS VPN	Remote Data Center - Haldwani	RAILWAY BAZAR, HALDWANI- 263139	2 Mbps	2 Mbps									
164	MPLS VPN	Regional Office Noida	THE NAINITAL BANK LTD., Regional Office, Naini Business Centre, 4th Floor, UPRNN Building, C- 20/1A/7, Sector 62, Noida - 201 309	4 Mbps	4 Mbps									

165	MPLS VPN	Regional Office Haldwani	HALDWANI-263139	2 Mbps	2 Mbps									
Total Price (Rs.)														

<u>Table G -BOQ-DC-DR-NDR-</u> <u>(AMC- 6th & 7th year)</u>									(Price in Rs.)	
-	-				Year 6		Year 7			
S.No	Description	Qty-DC	Qty-DR	Qty-NDR	Basic Unit rate	Total Price (excluding GST)	Basic Unit rate	Total Price (excluding GST)	Total GST	Total Price (Including GST)
		(a)	(b)	(c)	(d)	(e)= (a+b+c)* (d)	(f)	(g)= (a+b+c)* (f)	(h)	(i)=(e)+(g) + (h)
1	External Physical Firewall - NGFW with UTM (IPS/IDS, AV Gateway, Sandboxing)	2	2	0						
2	Internal Physical firewall with IPS	2	2	0						
3	Core Switch 48 port	2	2	0						
4	Access Switch	4	4	1						
5	Management Switch	2	2	0						
6	Staging Switch	2	2	0						

7	Rack Servers - Server Type 1	7	6	0						
8	Rack Servers - Server Type 2	2	2	0						
9	Rack Servers - Server Type 3	2	2	0						
10	Rack Servers - Server Type 4	3	4	0						
11	Rack Servers - Server Type 5	1	0	0						
12	Rack Servers - Server Type 6	2	0	0						
13	Rack Servers - Server Type 7	1 Lot	1 Lot	0						
14	SAN Switch	2	2	1						
15	Primary Storage - Unified Storage with SSD 20 TB Usable Capacity	1	1	1						
16	Secondary Storage - Storage 80TB Usable for data backup	1	1	0						
17	Red Hat Enterprise Linux Server, Unlimited VMs - Latest Version	2	0	0						
18	Red Hat Enterprise Linux	20	18	0						

	Server with High-Availability, Upto 2 VM's -Latest Version									
19	Microsoft Windows Operating System 2-Core Std Licenses for Server Type - 4	16	8	0						
20	Microsoft Active directory CAL License	1000	0	0						
21	Microsoft Windows Operating System 2 Core Std Licenses for Server Type - 6	36	0	0						
22	Microsoft Windows Operating System 2 Core Std Licenses for Server Type - 4	0	16	0						
23	Operating System License, Patch Management and Storage etc. for Server Type 7	1 Lot	1 Lot	0						

24	Virtualization Software Latest version	12	10	0						
25	Centralized Management for Virtualization software Latest Version	1	1	0						
26	Oracle Virtual Machine Latest version (Server Type -1 & Type 3)	5	4	0						
27	Enterprise Class Backup Software	1	0	0						
28	DR Automation Software Solution	0	1 Lot	0						
29	JBoss Enterprise Application Platform	51 Cores	0	0						
30	JBoss Web Server	30 Cores	0	0						
31	Cross Connect of 100 Mbps	1	1	1						
32	Infrastructure Hosting Services Racks	3	3	1						
33	Managed Services and ITSM Software for proposed solution	1	1	1						

34	Antivirus / Host IPS Solution (for all Physical and virtual servers Proposed)	1 lot	1 lot	0						
35	End Point Security	1500	0	0						
36	Privileged Identity Management	20	0	0						
37	Database Activity Monitoring	10	10	0						
38	Multi-Factor Authentication with dedicated Solution in High-availability	1020	0	0						
39	Vulnerability Assessment Service	20	0	0						
40	Penetration Testing Service	10	0	0						
41	Server Load Balancer with Web Application Firewall	2	2	0						
42	DDOS 1Gbps Mitigation at ILL	1	1	0						
43	AAA Solution	1	0	0						
44	Tape Library	1	0	0						
	Total Price (Rs.)									

Table H -BOQ-DC-DR(Subscription) for 6th and 7th year					(Price in Rs.)					
					Year 6		Year 7			
S.No	Description	Qty-DC	Qty-DR	Qty-NDR	Basic Unit rate	Total Price	Basic Unit rate	Total Price	Total GST	Total Price (Including GST)
		(a)	(b)	(c)	(d)	(excluding GST) (e)= (a+b+c)* (d)	(f)	(excluding GST) (g)= (a+b+c)* (f)	(h)	(i)=(e)+(g)+(h)
1	Cross Connect of 100 Mbps	1	1	1						
2	Infrastructure Hosting Services Racks	3	3	1						
3	Managed Services and ITSM Software for proposed solution	1	1	1						
4	Vulnerability Assessment Service	20	0	0						
5	Penetration Testing Service	10	0	0						
	Total Price (Rs.)									

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