RAILTEL CORPORATION OF INDIA LIMITED

(A Govt. of India Undertaking)

Regd. & Corp. Off:-

Plate-A, 6th Floor, Office Tower-2,
NBCC Building, East Kidwai Nagar, New Delhi-110023

Selection of Partner

For

IT Infra services to RCIL Customer

EOI No: RCIL/EOI/CO/DNM/2021-22/IT services to RCIL customer/05 dated 15.06.2021

NOTICE

RailTel Corporation of India Limited
Plate-A, 6th Floor, Office Tower-2,
NBCC Building, East Kidwai Nagar, New
Delhi-110023

EOI Notice No: RCIL/EOI/CO/DNM/2021-22/IT services to RCIL customer/05 dated 15.06.2021

RailTel Corporation of India Ltd.,(here after referred to as RailTel) invites EOIs from RailTel's Empaneled Partners for the selection of suitable agency for providing "IT Infra services to RCIL Customer".

The details are as under:

1	Last date for submission of EOIs by bidders	25.06.2021 before 15:00 Hrs.
2	Opening of bidder Response and price bid	25.06.2021 at 15:30 Hrs.
3	Number of copies to be submitted	One
4	EMD	Rs. 5,00,000/-
5	Tender Cost	11,800/- (Incl. GST)

DD for EMD and EOI cost should be in the favor of **RailTel Corporation of India Limited** payable at Delhi.

Prospective bidders are required to direct all communications related to this Invitation for EoI document, through the following Nominated Point of Contact persons:

Contact: Naresh Kumar
Position: DGM/IT
Email:naresh.kumar@railtelindia.com
Telephone: +91124 2714000
Mobile:+91 9717644088

NOTE: **(i). All firms are required to submit hard copy of their EOI submissions, duly signed by Authorized Signatories with Company seal and stamp.**

(ii). The EOI response is invited from all empanelled partners of RailTel only. Only RailTel empaneled partners are eligible for participation in EOI process.

(iii). Eligible MSMEs are exempted from cost of EOI Documents and EMD, more details are given in clause 13.7 of EOI Document.

1. RailTel Corporation of India Limited–Introduction

RailTel Corporation of India Limited (RailTel), an ISO-9001:2000 organization is a Government of India undertaking under the Ministry of Railways. The Corporation was formed in Sept 2000 with the objectives to create nationwide Broadband Telecom and Multimedia Network in all parts of the country, to modernize Train Control Operation and Safety System of Indian Railways and to contribute to realization of goals and objective of national telecom policy 1999. RailTel is a wholly owned subsidiary of Indian Railways.

For ensuring efficient administration across India, country has been divided into four regions namely, Eastern, Northern, Southern & Western each headed by Regional General Managers and Headquartered at Kolkata, New Delhi, Secunderabad & Mumbai respectively. These regions are further divided into territories for efficient working. RailTel has territorial offices at Guwahati, & Bhubaneswar in East, Chandigarh, Jaipur, Lucknow in North, Chennai & Bangalore in South, Bhopal, and Pune & Ahmedabad in West. Various other territorial offices across the country are proposed to be created shortly.

RailTel's business service lines can be categorized into three heads namely B2G/B2B (Business to Government and Business to Business) and B2C (Business to customers):

Licenses & Services

Presently, RailTel holds IP-1, NLD and ISP (Class-A) licenses under which the following services are being offered to various customers:

CARRIER SERVICES

1. National Long Distance: Carriage of Inter & Intra -circle Voice Traffic across India using state of the art NGN based network through its Interconnection with all leading Telecom Operators
2. Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
3. Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks
4. Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's

ENTERPRISE SERVICES

1. Managed Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
2. MPLS VPN: Layer-2 & Layer-3 VPN available for granularities from 64 Kbps to nx64 Kbps, 2 Mbps& above
3. Dedicated Internet Bandwidth: Experience the "Always ON" internet connectivity at your fingertips in granularities 2mbps to 155mbps

RETAIL SERVICES

Rail wire: Triple Play Broadband Services for the Masses. It is a pilot project undertaken by RailTel and currently services are offered out of Bangalore and nearby places.

2. Objective of EOI

RCIL is implementing IT-ICT projects like providing Infra & Cloud Services, Application Development, ERP/E-Office Implementation and Consultancy Services for its customers. There is requirement of providing ICT Infra Items supply , installation and support for one of RCIL's government customer. RailTel will obtain best Rates from its empaneled partner and will submit a techno-commercial proposal to its customer by adding RailTel margin .IF RCIL receive PO from customer RailTel will issue the purchase order to its selected partner.

3. Scope of Work

To provide Managed Services and System Integrator Services for the applications over the Data Centre IT infrastructure inclusion of supply, installation, commissioning and support at RCIL Customer's Complex and to provide System Integration services and support for the mentioned infrastructure below indetail.

This would also include operations and maintenance of the RCIL Customer's application (errors/ bugs/ gaps/ ticket resolution/ routine) and regular updates etc. The Supplier shall be responsible for procurement, installation and understanding the functional and technical details of below mentioned applications and infrastructure and will take care of the end to end integrated system as required.

Scope of System Integration Services:

- Security Incident Event Management Tool and Integration
- Backup Appliances and Management.
- Enterprise Management System Software
- Application Performance Management
- Network Behaviour Analyser and Detection
- Servres
- RED Hat OS & Jboss

Details of Scope of Work:

All the below mentioned tools and solutions will integrate with the required system and applications to manage the required system integration services of the infrastructure as desired.

❖ **Security Information and Event Management (SIEM)**

The integrated services with this tool should offer a holistic view of an organization's information security. Itshould provide:

- Real-time visibility across the information security systems.
- Event log management that consolidates data from the specified sources.
- A correlation of events gathered from different logs or security sources, using if-then rules that add intelligence to raw data.
- Automatic security event notifications.
- The system should provide dashboard for security issues and other methods of direct notification.
- Policy Management
- Alert Management, Data Consolidation and Correlation

❖ **Backup Appliance and Management**

To ensure the redundancy of the integrated services of the system and data, the storage device should be capable of accumulating the backup software and hardware components within a single device. It should be atype of turnkey and all-inclusive backup solution that should provide a central interface for backup processes, tools and infrastructure. It should be preinstalled with the backup management software, storage drives, network interfaces / ports and other backup administration utilities. It should work by being connected to the devices and specified components over the network. The pre-installed backup software should capture the data from each connected and configured nodes and devices and should store it on the local storage media.

The same data should be replicated / restored through the backup appliance when required as per the ask. It should be capable of connecting to external storage and backup facility. Moreover, it should also provide data security and protection services by encrypting data at rest and restricting access to the appliance to only authorized users.

❖ **Enterprise Management System Software**

This solution will not only handle the complete operations of the integrated system's services, but also will manage the incident management at one go. The vendor shall establish a service desk for attending to the issues related to the production deployment and related performance issue in the application. The first level helpdesk issue related to overall application functionalities shall be under the scope of the client. The service desk management shall include the following:

- 24x7 support related to Application deployment and performance issues
- Level zero analysis of the issues based on the knowledge base documents and provide resolution
- Escalation of tickets further to the concerned team
- Follow-up with the stake-holders for proper timely closure of the tickets
- Update the Knowledge base accordingly
- Maintain the service desk weekly and monthly reports

❖ **Application Platform & Performance Management**

The vendor shall provide an overall picture of a software environment with a greater focus on resource utilization. It should involve more awareness of the end user and their interaction with the application. Application performance management should help IT spot application performance issues and identify correlations with the performance of other software and hardware in the environment. With the approach of valuable(s) for IT departments and business leaders wanting to understand which applications are necessary for end users to do their jobs as well as to what extent application performance problems are hindering productivity, this tool should deliver as mentioned in the RFP.

❖ **Network Behavior Analyzer**

Network behaviour analyser tool will be required to analyse the network traffic and flow completely. Solution should use a scalable approach of taking network flows in net flow and s flow format to analyse all north-south as well as east-west traffic apart from the logs from all end-points, servers, and firewall. Solution should be able to identify the infection by taking into account suspicious network traffic, behaviour, source and destination. Not requiring to interact directly with the infected device(s) / hosts. Solution should monitor and detect all outbound and inbound command and control traffic.

❖ **Servers**

New server will be required due to obsolete of old infra of customer and new requirements of

hosting the new application.

- **Red HAT**

  Customer is using RED Hat and OS and Jboss as Application tier for running its application as OS support of Red Hat needs to be renewed and Jboss also needs to be renew for two year along with its version upgrade.

Bidder has to provide the all the Infra (Server, storage, OS) for installing all the software as mention under SOR 7 as pert of solution of project.

4. Technical Specifications of Proposed Items to Cover SoW:

Indicative Technical Specification is as per Annexure-1

5. Language of Proposals

The proposal and all correspondence and documents shall be written in English. The hardcopy version will be considered as the official proposal.

6. Payment terms

6.1. For Supply Items (both Hardware and Software),100% Payment will be done on back to back basis after receiving payment from Customer.

6.2. For O&M (Manpower & ATS/AMC) Payment will be on Back to back or as per agreement between RCIL and Customer.

6.3. All payments mentioned in table below shall be paid on back to back basis against Tax Invoice. RailTel shall make payment to selected firm after receiving payment from Customer.

6.4. In case of any penalty or deduction made by customer, same shall be passed on to firm.

6.5. Escalation (if any) shall be applicable every year to cover inflation and other associated costs as per agreement between RCIL and Customer and after approval from Railtel's Competent Authority.

7. Schedule of Rates (SOR)

SOR A : Supply Items With 3 years Warranty

S No.	Item Name	Qty	Category	*Cost (Exclusive of Tax)*
1	SIEM (with Technical Spec as per SN-1 under Annexure-1)	1	Appliance	
2	Backup Solution with Tape Library (with Technical Spec as per SN-2 & 3 under Annexure-1)	1	Appliance	
3	EMS (Enterprise Management System) (with Technical Spec as per SN-4 under Annexure-1)	1	Software	
4	NBAD (Network Behavior AnalyzerDetection) (with Technical Spec as per SN-6 under Annexure-1)	1	Software	
5	APM (Application PerformanceManagement) (with Technical Spec as per SN-5 under Annexure-1)	1	Software	
6	Servers (with Technical Spec as per SN-7 under Annexure-1)	10	Appliance	

7	RED Hat OS (with Technical Spec as per SN-8 under Annexure-1)	1	Software	
8	RED Hat Jboss (with Technical Spec as per SN-9 under Annexure-1)	1	Software	
	Grand Total			

SOR B : O&M Manpower (Post Installation and Commissioning)

S. No.	Service Description	Level	Qty	Unit Cost (Per Man Month)	Total Cost Per Month*(Exclusive of Tax)*
1	SIEM	L1	2		
2	SIEM	L2	1		
3	SIEM	L3	1		
4	Backup Solution	L1	1		
5	Backup Solution	L2	1		
6	EMS	L1	2		
7	NBAD	L2	2		
8	APM	L1	1		
9	APM	L2	2		
Total Monthly Cost(Exclusive of Taxes)					

SOR Total : (SOR A+SOR B) : _____

Amount in words : _____

***All Amount mentioned above are exclusive of Taxes. Taxes will be extra.**

8. Evaluation criteria

Evaluation will be done on basis of lowest offer quoted by the bidder under Clause 6 SOR Total.

9. RCIL's Right to Accept/Reject Bids

RCIL reserves the right to accept or reject any bid and annual the bidding process or even reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or without any obligation to inform the affected bidder or bidders about the grounds for RailTel's action.

10. Bidding Document

The bidder is expected to examine all instructions, forms, terms and conditions and technical specifications in the bidding documents. Submission of bids, not substantially responsive to the bidding document in every aspect will be at the bidder's risk and may result in rejection of its bid without any further reference to the bidder.

All pages of the documents shall be signed in ink by the bidder including the closing page in token of his having studies the EOI document and should be submitted along with the bid.

11. Period of Validity of bids and Bid Currency

Bids shall remain valid for a period of 180 days from the date of receiving PO from Customer. The prices in the bid document shall be expressed in Indian Rupees only.

12. Bidding Process (Single Packet System)

The bidding process will consist of single packet system. The detailed technical proposal i.e. the including 'Price Bid' shall be submitted in sealed envelope.

13. Bid Earnest Money (EMD)

13.1 The tenderer shall furnish a sum as given in EOI Notice as Earnest Money in the form of Demand Draft from any scheduled bank in India in favour of "RailTel Corporation of India Limited" payable at Delhi which should remain valid for 90 days beyond the bid opening date.

13.2 The EMD may be forfeited if a bidder withdraws his offer or modifies the terms and conditions of the offer during validity period and in the case of a successful bidder, if the bidder fails to accept the Letter of Acceptance (LOA) and fails to furnish performance bank guarantee (security deposit) in accordance with clause 13.

13.3 Offers not accompanied with valid Earnest Money shall be summarily rejected.

13.4 Earnest Money of the unsuccessful bidder will be discharged / returned as promptly as possible but not later than 30 days after the expiry of the period of offer / bid validity prescribed by the Purchaser.

13.5 The successful bidder's EMD will be discharged after the first payment to selected bidder and after deduction of Security deposit amount as per clause 13.

13.6 Earnest Money will bear no interest.

13.7. **For Micro and Small Enterprises (MSEs)**

13.7.1. Certain benefits/preferential treatment shall be extended to the registered MSEs as per guidelines issued in the latest notification of Ministry of MSME/ Government of India.

13.7.2. MSEs who are interested in availing themselves of these benefits will enclose with their offer the proof of their being MSE registered with any of the agencies mentioned in the notification of Ministry of MSME.

13.7.3. The MSEs must also indicate the terminal validity date of their registration

13.7.4. Failing 13.7.2 3and 13.7.3 above, such offers will not be liable for consideration of benefits detailed in the notification of Government of India.

14. Security Deposit / Performance Bank Guarantee (PBG)

14.1. In case Customer ask for PBG by RailTel then the successful bidder has to furnish security deposit in the form of Performance Bank guarantee @ 3 % or (same %age as applicable for RailTel to submit PBG with Customer) of issued PO/ LOA value, the same should be submitted within 30 days of issue of LOA/PO, failing which a penal interest of 15% per annum shall be charged for the delay period i.e. beyond 30 (thirty) days from the date of issue of LOA/PO. This PBG should be from a Scheduled Bank and should cover warranty period plus three months for lodging the claim. The performance Bank Guarantee will be discharged by the Purchaser after completion of the supplier's performance obligations including any warranty obligations under the contract.

14.2. The Performa for PBG is given in Form No. 1. If the delivery period gets extended, the PBG should also be extended appropriately.

14.3. The security deposit/PBG shall be submitted to Corporate Office & will bear no interest.

14.4. A separate advice of the BG will invariably be sent by the BG issuing bank to the RailTel's Bank

through SFMS and only after this the BG will become acceptable to RailTel. It is therefore in interest of bidder to obtain RailTel's Bank IFSC code, Its branch and address and advise these particulars to the BG Issuing bank and request them to send advice of BG through SFMS to the RailTel's Bank.

14.5. The security deposit/Performance Bank Guarantee shall be released after successful completion of Contract, duly adjusting any dues recoverable from the successful tenderer. Security Deposit in the form of DD/Pay Order should be submitted in the favour of "Railtel Corporation of India Limited" payable at New Delhi Only.

14.6. Any performance security upto a value of Rs. 5 Lakhs is to be submitted through DD/Pay order / online transfer only.

15. Deadline for Submission of Bids

Bids must be submitted to RCIL at the address specified in the preamble not later than the specified date and time mentioned in the preamble. If the specified date of submission of bids being declared a holiday for RCIL, the bids will be received up to the specified time in the next working day.

16. Late Bids

Any bid received by RCIL after the deadline for submission of bids will be rejected and/or returned unopened to the bidder.

17. Modification and/or Withdrawal of Bids

Bids once submitted will treated, as final and no modification will be permitted. No correspondence in this regard will be entertained.

No bidder shall be allowed to withdraw the bid after the deadline for submission of bids.

In case of the successful bidder, he will not be allowed to withdraw or back out from the bid commitments. The bid earnest money in such eventuality shall be forfeited and all interests/claims of such bidder shall be deemed as foreclosed.

18. Details of Financial bid

a. The financial bid should clearly bring out the cost of the work with detailed break-up of taxes.
b. The financial bid must be submitted as per proforma under clause No.:6 "Schedule of Rates"

19. Clarification of Bids

To assist in the examination, evaluation and comparison of bids the purchaser may, at its discretion, ask the bidder for clarification. The response should be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

20. Variation in Contract

+/-50 % variation may be operated on SOR during the period of Project Schedule with the approval of competent authority with similar terms and procedure as specified in the agreement.

21. Bidder's Information

S.No.	ITEM	Details

1.	Full name of bidder's firm	
2.	Full address, telephone numbers, fax numbers, and email address of the primary office of the organization / main / head / corporate office	
3.	Name, designation and full address of the Chief Executive Officer of the bidder's organization as a whole, including contact numbers and email Address	
4.	Full address, telephone and fax numbers, and email addresses of the office of the organization dealing with this tender	
5.	Name, designation and full address of the person dealing with the tender to whom all reference shall be made regarding the tender enquiry. His/her telephone, mobile, Fax and email address	
6.	Bank Details (Bank Branch Name ,IFSC Code, Account number)	
7.	GST Registration number	

22. Format for statement of Deviation

The following are the particulars of deviations from the requirements of the Instructions to bidders:-

S.NO	CLAUSE	DEVIATION	REMARKS (Including Justification)

23. Period of Association/Validity of Agreement

Post to SITC(Supply, Installation, testing and Commissioning) of the delivered items, Supplier shall be responsible for Operations & Management (O&M) of the installed system for 03 Years from DoC. O&M shall consist of Manpower and ATS/AMC components. After completion of 03 Years O&M period, services can be renewed on mutual agreement in blocks of 02 or more Years. The date of successful SITC shall be treated as Date of Commissioning (DoC) of the project.

However contract (Full or Partial) can be terminated during Contract Tenure or extended further after contract tenure based on agreement between RCIL and Customer and based on mutual agreed terms & Conditions.

24. Other Terms and Condition

1. Bidders are requested to quote their best prices considering the fact that price negotiation, if required with the vendor will be passed on to the selected bidder.

2. Unless otherwise specified all prices quoted must remain firm except for statutory variation in taxes and duties during contractual delivery period. Any increase in taxes and duties after expiry of the delivery period will be to vendor account.

3. Bids should preferably be typewritten and any correction or over- writing should be initialed. Rates to be indicated both in words and figures.

4. Sealed bids in envelope superscribing tender enquiry number and due date of opening

must be sent by Registered or Speed Post or to be dropped in the Tender Box specified for the purpose. Bids received after specified date and time are liable to be rejected.

5. Bids should be valid for a minimum period of 180 days from the date of issuing of LoA.

6. Printed conditions on the back side of the offers will be ignored.

7. Any increase in taxes and duties after expiry of the delivery period will be to supplier's account. This will be without prejudice to the rights of RCIL for any other action including termination.

8. RCIL shall have the right to terminate the contract by giving 30 days notice without assigning any reasons thereof. However, in the event of any breach of terms of the contract, RCIL will have right to terminate the contract by written notice to the Seller.

9. FORCE MAJEURE: Any delay or failure to perform the contract by either party caused by acts of God or acts of Government or any direction or restriction imposed by Government of India which may affect the contract or the public enemy or contingencies like strikes, riots etc. shall not be considered as default for the performance of the contract or give rise to any claim for damage. Within 7 days of occurrence and cessation of the event(s), the other party shall be notified. Only those events of force majeure which impedes the execution of the contract at the time of its occurrence shall be taken into cognizance.

10. In case of any dispute or difference arising out of the contract which can not be resolved mutually between RCIL and vendor, it shall be referred to a Sole Arbitrator to be appointed by the CMD, RCIL.

11. The Arbitration and Conciliation Act, 1996 and rules made there under shall apply to the Arbitration Proceedings.

12. The contract shall be governed by and construed according to the laws in force in India and subject to exclusive jurisdiction of the Courts of Delhi only.

13. RCIL may place the order in full or partial manner based on customer requirement. At time of awarding of work to RailTel by Customer, if any item is added or deleted , then same shall be passed on to the selected bidder with same SOR and terms & conditions.

14. List of Documents to be submitted for bidding

    - Covering Letter
    - Format for statement of deviation (clause no.-21)
    - Format for providing Bidder’s information (clause no.-20)
    - Commercial Offer
    - Signed and Stamped EOI document
    - Any other relevant document
    - Tender Cost and EMD
    - GST Registration Certificate
    - MSME Certificate

Format for COVERING LETTER

COVERING LETTER (To be on company letter head)

EoI Reference No:RCIL/EOI/CO/DNM/2021-22/IT services to RCIL customer/05 dated 15.06.2021

Date:
To,

GM (ITP),
RailTel Corporation of India Limited,
Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023

Dear Sir,

SUB: Participation in the EoI process

Having examined the Invitation for EoI document bearing the reference number _____ released by your esteemed organization, we, undersigned, hereby acknowledge the receipt of the same and offer to participate in conformity with the said Invitation for EoI document.

If our application is accepted, we undertake to abide by all the terms and conditions mentioned in the said Invitation for EoI document.

We hereby declare that all the information and supporting documents furnished as a part of our response to the said Invitation for EoI document, are true to the best of our knowledge. We unterstand that in case any discrepancy is found in the information submitted by us, our EoI is liable to be rejected.

We hereby Submit EMD amount of Rs. _____ issued vide _____ from Bank _____.

OR

We hereby confirm that Our Firm MSME Number is _____ with validity date _____ and our Firm is eligible for exemption as per clause number 13.7.

Authorized Signatory
Name
Designation

Form No. 1

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(On Stamp Paper of ₹ One Hundred)

To,

GM (ITP),
RailTel Corporation of India Limited,
Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023

1. In consideration of the RailTel Corporation of India Limited (CIN : U64202DL2000GOI107905), having its registered office at Plate-A, 6th Floor, Office Block Tower-2, East Kidwai Nagar, New Delhi – 110023 (herein after called "RailTel") having agreed to exempt …….. (CIN : ……) having its registered office at ……. (hereinafter called "the said Contractor") from the demand, under the terms and conditions of Purchase Order No. …….. dated …….. made between RailTel and ……. for (hereinafter called "the said Agreement") of security deposit for the due fulfilment by the said Contractor of the terms and condition contained in the said Agreement, or production of a Bank Guarantee for Rs. ……. (Rs. …….. Only). We …….. (indicate the name and address and other particulars of the Bank) (hereinafter referred to as 'the Bank') at the request of …… contractor do hereby undertake to pay RailTel an amount not exceeding Rs. ……. (Rs …… Only) against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor of any of the terms or conditions contained in the said Agreement.

2. We, ……. the Bank do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage by the said Contractor of any of terms or conditions contained in the said Agreement by reason of the Contractor's failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs …… (Rs. ……. Only).

3. We, ……. the Bank undertake to pay the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal. The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

4. We, ……. the Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid an its

claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before …… . We shall be discharged from all liability under this Guarantee thereafter.

5. We, …… the Bank further agree with the RailTel that the RailTel shall have fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time of to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said Contractor and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the said Contractor or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

This Guarantee will not be discharge due to the change in the constitution of the Bank or the Contractor.

(…….. indicate the name of Bank ……) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of RailTel in writing.

Dated the …… Day of …… 2020 for ……. (Name of Bank)

In the presence of Witnesses:

1. Signature With Date
   Name

2. Signature With Date
   Name

Annexure-1

1. SIEM (SECURITY INFORMATION AND EVENT MANAGEMENT) with 3 year warranty

S.NO	Specification Name	(Allowed Values)
	Category	**Software**
	Types of Licence	Perpetual
1	" Duration of Subscription (in Years) (Hint :- Select '0' if not applicable)"	0.0 - 5.0 Or higher
2	OEM Licensing policy	Per Device/Appliance
3	Number of licenses included in the offered product as per OEM defined licensing policy	1.0 - 1000.0 Or higher
4	Licence Delivery Mode	Electronic Licence
5	Scope of Installation	Installation
6	The offered product have support from OEM for	Updation for Patches and Bug fixes within support period, Upgradation of version within support period
7	Number of Years for OEM support for updation (Patches and Bug fixes) is included in the scope of supply (Hint :- Select '0' if not applicable)	1.0 - 5.0 Or higher
8	Number of Years for OEM support for Upgradation of version is included in the scope of supply (Hint :- Select '0' if not applicable)	1.0 - 5.0 Or higher
9	Training Options	Virtual
10	No of days Training Provided (Hint :- Select '0' if not applicable)	3.0 - 30.0 Or higher
11	Sustained event processing capacity of Enterprise Security Management (in EPS) (Hint :- Select '0' if not applicable)	2500.0 - 80000.0 Or higher
12	Event processing capacity of Enterprise Log Management (in EPS) (Hint :- Select '0' if not applicable)	5000.0 - 100000.0 Or higher
13	Event processing capacity of Log Collection (in EPS) (Hint :- Select '0' if not applicable)	5000.0 - 30000.0 Or higher
14	Event processing capacity of Correlation (in EPS) (Hint :- Select '0' if not applicable)	10000.0 - 120000.0 Or higher
15	Sustained Event processing capacity of All-In-One SIEM (in EPS) (Hint :- Select '0' if not applicable)	2500.0 - 3500.0 Or higher
16	Component of SIEM	Enterprise Security Management, Enterprise Log Management, Log Collection, Correlation Module, SIEM Platform
17	Enterprise Security Management features	Enterprise Dashboard for real time visibility, Analyst-centric dashboards, reports, reviews, rules, and alerts, Pre-packaged configurations for common security use cases, such as alarms, views,

		reports, variables, and watch lists, Predefined dashboards, audit trails, and reports, Compliance reports, rules, and dashboards, Event enrichment with contextual information, Correlation of suspicious or confirmed threat, Collect data from third- party security vendor, Threat Intelligence feeds
18	Additional Enterprise security management features	NA
19	Enterprise Log Management features	Log data retention, Search and integrity check, SAN and NAS connection capability, Manage Storage Pools, Query optimization
20	Indicate value of n from range given for compression rate n:1	10.0 - 25.0 Or higher
21	Additional Enterprise Log management features	NA
22	Log Collection features	Security event collection, Network flow collection, Collect and normalize event and flow data,High availability support, Usage statistics, Advanced syslog parser
23	Additional Log Collection features	NA
24	Correlation Module features	Real time correlation, Historical correlation, Rule based and Rule less correlation, Risk correlation, Geolocation correlation, Vulnerability correlation
25	SIEM platform features	Log Management, Network analysis functions, Data collection for correlation, Collect Logs and Network flows, Well defined sustained event handling capability,Compliance reports and rules, Dashboard for real time visibility, Threat Intelligence Feeds
26	Type of Appliance	NA
27	Hard disk capacity (in TB)of appliance (Hint :- Select '0' if not applicable)	0.0 - 100.0 Or higher
28	RAM size capacity (in GB) of appliance (Hint :- Select '0' if not applicable)	0.0 - 10000.0 Or higher
29	Number of Physical CPU core in the appliance (Hint :- Select '0' if not applicable)	0.0 - 128.0 Or higher
30	Hardware to be included in the Bid Requirement	16 Core ,64GB RAM 2 TB SSD NV Me IOPS 10000/30000 LTA - 6TB for 1 yr.
31	Architecture of SIEM	Solution must be physically segregated 3 tier architecture

32	Event Per Seconds (EPS)	Solution must be on peak Event Per Second (EPS) 10K
33	Deployment	Deployment of solution must be on physical server and must integrate with End Point Protection, Endpoint detection and response, Network Traffic Analysis, User Behaviour Analytics
34	Licenses	Licenses must be for High Availability as well as DisasterRecovery and must include with integrated SOAR

2. Backup Appliance with 3 year warranty

S.NO	**Specification Name**	**(Allowed Values)**
	Domain type	**Purpose Built Backup Appliance with Backup andRecovery Software**
1.	Configured usable capacity of offered Purpose Built Backup Appliance (in TB) (Hint: - Select '0' ifnot applicable)	80.0 - 1000.0 Or higher
2.	Configured usable capacity of Purpose-BuiltBackup Appliance with Backup and Recovery Software (in TB) (Hint: - Select '0' if not applicable)	80.0 - 1000.0 Or higher
3.	Maximum Scalable Capacity (TB) (Hint: - Select '0' if not applicable)	400.0 - 1000.0 Or higher
4.	Types of Licence	Perpetual
5.	"Duration of Subscription (in Years) (Hint :- Select '0' if not applicable)"	0.0 – 5.0 Or higher
6.	OEM Licensing policy	Per TB
7.	Licence Delivery Mode	Electronic License
8.	Hosting Environment/ Deployment Option	On Premise
9.	The offered product have support from OEM for	Unlimited updation for Patches and Bug fixes within maintenance & support period, Unlimited upgradation of version within support period
10.	Number of Years for OEM support for updation (Patches and Bug fixes) is included in the scope of supply (Hint :- Select '0' if not applicable)	5.0 – 5.0 Or higher

11.	Number of Years for OEM support for Upgradation of version is included in the scope of supply (Hint :- Select ‘0’ if not applicable)	5.0 – 5.0 Or higher
12.	Training Options	On-Site, Virtual, TrainingMaterial
13.	No of days Training Provided (Hint: - Select ‘0’ if not applicable)	5.0 – 30.0 Or higher
14.	Max rated Appliance Throughput without Source/Client-side Deduplication (in TB /hour) (Hint: - Select ‘0’ if not applicable)	10.0 – 100.0 Or higher
15.	Max rated Appliance Throughput with Source/Client- side Deduplication (in TB /hour) (Hint: - Select ‘0’ if not applicable)	25.0 – 100.0 Or higher
16.	Rack space (U)	0.0 – 8.0 Or lower
17.	Type of Disk in Backup Appliance	NLSAS
18.	Number of 1G Ethernet Ports (Hint: - Select '0' if not applicable)	1.0 Or higher
19.	Number of 10G Ethernet Base- T Ports (Hint: - Select '0' if not applicable)	2.0 - 20.0 Or higher
20.	Number of 10G SFP/SFP+ Ports (Hint: - Select '0' if not applicable)	4.0 - 20.0 Or higher
21.	Total Throughput of Fibre Channel (in Gbps) in the offered product (Hint: - Select '0' if not applicable)	16.0 - 128.0 Or higher
22.	Number of 16G Fibre channel ports (Hint: - Select '0' if not applicable)	6.0 - 8.0 Or higher
23.	RAID Level Inbuilt in the offered product (Hint: - Select '0' if not applicable)	Raid 6
24.	Source data backup capacity in TB (Hint: - Select '0' if not applicable)	50.0 - 1000.0 Or higher
25.	Protocol supported by Backup appliance	NFS, CIFS, FC, OST, VTL,NDMP
26.	Replication capability of the backup appliance	Bi-directional, One to many,Many to one
27.	Backup schedule supported by offered product	Daily, Weekly, Monthly, Quarterly, Yearly
28.	Scheduling Features	The proposed software should have inbuilt calendar based scheduling system. Proposed back up software should support various level of backup e.g. Full, incremental, differential, synthetic full.
29.	Graphical User Interface Features	The offered product to have web

		based Graphical User Interface (GUI) so that all backup can be managed centrally, regardless of location. GUI to be same across heterogeneous platform to ensure easy administration.
30.	Recovery Features	The offered product have a capability to maintain a database for all backup jobs, policy jobs meta-data etc., and to have thecapability of re-creating master system in case of disaster using this database
31.	De- Duplication Features	The offered product have a capability to support target based de-duplication along with source base de- duplication for improved backup window and lesser footprint.
32.	Tape out Capabilities Features	The offered product have capability to transfer all data that is backed up on disk to tape without client server intervention. Backup software capable toretrieve data from tape to client server directly
33.	Reporting Capabilities Features	Full job completion report:- Overview of the full backup jobs that are successful, partially successful and failed for each day
34.	Image level backup Capability Features	To support image level backup on host/hypervisor level formultiple vendors, To support source based deduplication while image level backup, To support granular recovery from image level backup
35.	Replication Capability Features	Subsequent Replication to be transferred only difference data from previous successful replication., Replication to provide the flexibility to transfer only dedup data., The offered product to support bi-directional, many-to-one, one-to-many, and one-to-one replication.,, The offered product to support encryption with 128 bit or 256 bit Advanced Encryption Standard (AES) algorithms

36.	Backup Appliance Features	Integrated and customizable Data Deduplication (Source and Target), All type Deduplication across all backup Jobs, Fixed-length Deduplication, Variable-Length Deduplication, Flexible Recovery Options, Remote Data Recovery, Hardware Snapshot Integration, Checkpoint restart for Backup and Restore, Secure Multitenancy features which provide separate logical space for each tenant., Separate retention support for source and replication target., Built-In WAN Acceleration / WAN Optimization, Backup to cloud..
	Backup and Recovery Software Features	LAN and LAN-free Backup, Protection of heterogeneous Server environments, Agentless/ API support, Instant Access/ Instant Restore, Single Web-Console for Backup and Recovery & Centralized Management, Granular Recovery of both Physical and Virtual environments, Support for NDMP Protocol, Backup to Tape and Purpose Built Backup Appliance, Automatic Backup Management features, Customized Reporting, Separate agents availability for operating system, database & applications, Standalone Tape Drive and Robotic Tape Library backup support, Tape Cloning And Offsite Tape Vaulting., Optimized Synthetic Backups, Backup Replication And Staging
	Generic Features	Database Backup and Recovery, Application Backup and Recovery, Virtual Machine Backup and Recovery, Backup data integrity checksum, Encryption- data at rest and data in flight, Policy-based Backup / Scheduling, Customized Reporting, Cloud Backup, Optimized DE duplicated Backup To Cloud, Integrated Backup and

		Recovery, Dissimilar Hardware Recovery, Server Backup and Recovery, Client Backup and Recovery, Unified Backup For Physical And Virtual Environment, Data Compression, Data Encryption, Incremental and Differential Backups
37.	Database supported by the offered product	Oracle,, DB2, Sybase, MySQL, PostgreSQL, MSSQL, NOSQL
38.	Supported Operating System by the offered product	Windows, Linux, Unix, HP- UX
39.	Platform supported for Bare Metal Recovery	Windows OS, Linux OS, UNIX OS, HP- UX

Additional Specification Parameters - BACKUP AND REPLICATION SOFTWARE BACKUP OR ARCHIVAL SOFTWARE

S.NO	Specification Parameter Name	(Allowed Values)
1.	**Operating system support**	Proposed backup solution must support backup management server, media server & client software on windows, Linux operating system.
2.	**Gartner Presence**	Proposed Backup solution mustbe present as leaders in latest Gartner's Magic Quadrant for backup and recovery solution.
3.	**Capacity**	The Backup solution include backup software (50 TB front end capacity license) with backup appliance.
4.	**Tape out facility and Virtualisation support**	Backup solution should allow direct connection with proposed

		tape library for backup tape out and support RHEV.
5.	**Hardware**	Backup Solution must provide a turnkey fully integrated backup solution (backup software and appliance) from a single OEM and is inclusive of Hardware and Software and other components and inclusive of commissioning, implementation and support
6.	**Hardware**	The offered purpose built backup appliance should be sized appropriately for backup of front-end data of 50TB (70% DB and 30% File System) as per below mentioned backup policies
A	**Capacity**	Daily Incremental Backup – retained for 28 days in the backup Appliance
B	**Capacity**	Weekly Full Backup for all data types – retained for 4 weeks inthe backup Appliance.
C	**Capacity**	Monthly Full Backups – Retained for 12 months in the same backup Appliance.
D	**Capacity**	Yearly Full Backups - Retained for 5 years in the same backup Appliance.
E	**Capacity**	The offered purpose built backup appliance should be quoted with minimum 80 TB usable capacity post RAID 6 and hot-spare penalty. The proposed backup appliance must be sized for adequate capacity with 2% daily change rate for the contract period. Any additional backup storage capacity and any other component required as per sizing needs to be provided by the MSI and OEM at the time of bid. The bidder must submit the sizing certificate/report on OEM's letter head with seal & sign from the authorized signatory.

F	**Feature**	The offered backup software must provide an end to end management of backup software and backup appliance from the single console for ease of management.
7.	**Feature**	The offered backup solution must complete all backup within 8hours backup window and the bidder must provide all the hardware and software to meet this requirement

3. Tape Library with 3 years warranty

(Minimum 50% Local content required for MII compliance)

S. No	Specification Name	Bid Requirement (Allowed Values)
1.	Drive Technology	LTO
2.	Drive Generation	LTO 8
3.	Form Factor	4U, 6U
4.	Type Of Connectivity	FC
5.	Mail Slots	Yes
6.	Compression Ratio	2.5:1
7.	Transfer Rate (TB/hour)	1 to 3
8.	Maximum Capacity of Each Drive (TB)	12
9.	IP Rating	IP 65
10.	WORM (Write Once Read Many) Capable	Yes
11.	On Site OEM Warranty (Year)	5
12.	Tapes	80 LTO8 Data Cartridges plus cleaning cartridges pus barcode labels to start backup on day 1
13.	logical partitioning	The Tape library shall offer logical partitioning. It should provide added security by means of separate Admin domains
14.	drives	The Tape library should have two no of FC based I/O interfaces (one for each drive) populated with multipath configured.
15.	cables	the bidder should supply all required cables required for installation, configuration and integration of tape library with backup appliance
16.	Tapes	80 LTO8 Data Cartridges plus cleaning cartridges pus barcode labels to start backup on day 1

17.	logical partitioning	The Tape library shall offer logical partitioning. It should provide added security by means of separate Admin domains

4. Enterprise Management System Software with 3 year warranty

S.NO	Specification Name	(Allowed Values)
	Category	Enterprise Management System Software
1.	Components/ Modules of Offered product :	1. Server Management System, 2. Network Management System, 3. Helpdesk Management System, 4. IT Asset Inventory Management System
2.	Components /Modules of Server Management System	1. Server Fault, Availability and Performance Management System, 2. Server Automation Capability, 3. Database Management System, 4. Storage Management
3.	Components /Modules of Network Management System	1. Network Fault, Availability and Performance Management System, 2. Network Automation and configuration Management System, 3. Network traffic Analysis System, 4.Mutliprotocol Label Switching Service (MPLS) Monitoring, 5. Network Reporting & Analysis
4.	Components /Modules of Helpdesk Management System	1. Helpdesk Management System, 2.SLA Management and Penalty Estimation
5.	Components /Modules of IT Asset Inventory Management System	1. IT Asset Auto-Discovery and Inventory Management, 2. Configuration Management database (CMDB)
6.	Number of concurrent user supported by the offered product (Hint:- Usercan be Admin or Operator)	100.0 - 1000.0 Or higher
7.	Maximum number of user creation supported by the offered product	500.0 - 2000.0 Or higher
8.	MODE OF DEPLOYMENT	1.Onsite, 2.Offsite
9.	Deployment platform supported by the offered product	1. Physical Server, 2. Virtual Server, 3.Cloud, 4. Container Based,
10.	Installation and Demonstration	Yes
11.	The offered product have support from OEM for	1. Updation for Patches and Bug fixes within support period. 2. Upgradation of version within support period.
12.	Number of Years up to which support is available from OEM for Updation (Patches and Bug fixes) within support period	1

13.	Number of Years up to which supportis available from OEM for Upgradation of version within support period	1
14.	No of days Training Provided On/Off Site	11 to 20
15.	Number of devices supported per license (Hint :- Device is an entity which is monitored and managed by EMS EX Router, Switch, Server, VM, Firewall, IOT devices etc.)	10.0 - 25000.0 Or higher
16.	Types of License	1.Perpetual
17.	Duration of subscription (in years) (Hint: - Select '0' if not applicable)	0.0 - 5.0 Or higher
18.	Operating Systems supported by the EMS	1. Windows, 5. Linux, 6. Centos
19.	Capability to monitor end to end performance of Server Operating Systems & Databases and capable to manage distributed, heterogeneous systems from	1. Single Management Station
20.	Server Fault and Availability Management System Features	1. Capable to take backup of the threshold policies, based on the groups of devices or onany single individual device, 2. Capable to trend management supported monitoredparameters. 3. EMS to be pre-integrated for both Fault and Performance Management to receive alarm from various events sources to monitor Fault and Performance in a unified common format to provide a user friendly graphical user interface for alarm analysis and acknowledgement., 4.Capable to supports event co- relation where the correlation logic can be configured by operation team., 5 Capable to filter out eventsfor device / infrastructure marked under maintenance and also have GUI to define maintenance schedule, 6. Capable to captures all the events that are generated across multi- vendor infrastructure and correlates them to take corrective measures based on service dependencies & event handler. 7. Monitor both standalone and blade Infrastructure and its components, 9.Capable to provide Virtual Environment Management and provide Error reports generated by hypervisors. 10. System,security and audit logs, 11. Capable to Integrate with VMware, Citrix, etc., 12.Detect the fail-over and fallback in high availability environment, 13. Provide a centralized point of control with out-of-the-

		box policy-based management intelligence for easy deployment for the servers, operating systems, applications and services for correlating and managing all the IT infrastructure components of a business service., 14.The offered product capable to perform DNS lookup & support Agent-based and Agent- less data acquisition methods
21.	Monitoring server parameters of	1. Disk Usage, 2. CPU Usage, 3. Swap Memory, 4. Virtual Memory, 5. Interface status, 6. Log file monitoring, 7. Process status, 8. CPU Utilization by a process, 9. Service Status
22.	Process Utilization for	1. Correlation between CPU, 2. Memory, 3.I/O, 4. Paging, 5. Paging space, 6. I/O Utilization
23.	Server Performance and Reporting Management System Features	1. Bandwidth utilization at the physical and virtual host level. 2. Capacity Planning - To Manage dynamic demand of IT services, software be able to proactively Identify potential areas, which need to be upgraded (power, storage, etc.), 3. The system have context-based analysis and forecasting basedon performance data with automated policy deployment with detailed, intelligent monitoring of performance and availability data collection., 4. The event records to be available in the report format, with each event classified by its priority level and to be tagged with details of the date and time at which the event occurred Each event to be displayed and highlighted until the event has been acknowledged and cancelled in the automatic event log, and provided the fault has been satisfactorily rectified in the equipment, which generated the event, 5. The system be capable of archiving the performance data, 6. Proposed EMS has advance reporting, dashboard and analytical engine with various out of the box dashboards and reports, for constant monitoring of Availability, Performance & Efficiency, 7. Server Management The server management gives an overall understanding of the equipment performanceWhich then can be further drilled down to each of the smaller component The platform management is required
24.	Cache Utilization for	1. Host Port Utilization, 2. Disk Utilization, 3. CPU & Memory Utilization

25.	Centralized Dashboard Management System Features	1 .There be a single agent on the managed node that provides the system performance data, and for event management and be ableto prioritize events, do correlation &duplicate suppression ability to buffer alarms and provide automatic actions with capability to add necessary annotations. 2. Each operator is provided with user roles that includes operational service views enabling operators to quickly determine impact and root cause associated with events. 3.Sound/Popup Notifications for Alerts, 4. The system integrates with Helpdesk / Service desk tool for automated incident logging and also notify alerts or events via e-mail or SMS., 5.To provide alarm correlation and facilitate reduction of total number of alarms displayed by means of intelligent alarmcorrelation, suppression and root cause analysis techniques built in to the system., 6.The proposed Alarm Correlation and Root Cause Analysis system to integrate network, server and database performance information and alarms in a single console and provide a unified reporting interface for network components. The current performance stateof the entire network & system infrastructure be visible in an integrated console. 7. It has the capability to perform cross domain correlation with alarm correlation from Network Monitoring tool, Systems monitoring tool and other domain monitoring tools. 8.Alarm Filtering allows flexible filtering rules for staff to filter the alarms by category, severity, elements, duration, by user, by views, by geography or by department. 9. To provide out of the box root cause analysis with multiple root cause algorithms inbuiltfor root cause analysis., 10.The system supports multiple administrators, if need be using separate accounts with associated individual and group rights and privileges Normal users may have only read access, thattoo only to related areas., 11. Monitoring system be capable of sorting and filtering events in accordance with their priority to the level required A facility to be provided toenable a summary printed event record report to be prepared, listing not only the current active events, but also any events, including faults and alarms, reported and/ or cleared

		during the period since the previous summaryreport, 12. In a situation, where, due to asingle event, multiple events/alarms arise, thesystem be capable to identify the root-cause event asap, while suppressing the other conjugate events to help in minimizing downtime, 13. Umbrella Management - Mere Looking at the GUI helps understand the problem and where it has occurred instantlyIn case possible by the end device (being monitored) the information be polled., 14.The tool provides graphical user interface, which helps physically reaching theequipment whenever need be Tracking key information and data related to the device performance network traffic and current usage, be available on hovering the affected equipment Important trend charts be displayed on the fly, 15. Sound/ popup notifications, 16. Able to send e-mail or Mobile –SMS to pre-defined users for pre- defined faults. 17. It raises, co-relate & analyses alarms and helps in taking correctiveaction. 18. All alarm/event messages to be automatically time and date-stamped., 19. Capable to support REST API based integration with ticketing tools
26.	Server Automation Capability	1. Detect, collect and maintain information about Managed Servers, including packaged, unpackaged software, runtime state, host/guest relationships and more. 2. Capability to auto install agent onto targetserver, 3. Visualizes server, network, storage,and logical application environments and dependencies and compliance state. Provides Layer 2 and virtual LAN (VLAN) network information. Intuitive visual snapshot comparison reduces troubleshooting time. 4. Defines server build sequences for provisioning, incorporating operating systems, patches, and software policies Supports provisioning of VMware Hypervisor and Solaris Zones., 5. Identifies server vulnerabilities quickly and easily and reduces the time needed to patch multiple servers. Enables patch policy creation and flexible patch deployments. Supports native patch formats for all major operating systems. Provides out-of-the-box integration with Microsoft® Patch Network and Red Hat Enterprise Linux, 6. Enables rapid

		troubleshooting and configurable compliance management by comparing servers to reference servers, most golden reference snapshots, industry best practices, or user- defined scripts. Provides comprehensive compliance dashboard with consolidated servers and cross-tier compliance views. 7. Uses the communications channel with enhanced security features, audit logs, andaccess control policies to provide directconnections to servers in any location. Supports remote desktop connections,Windows PowerShell, and any shell of Linux environments. 8. Improves automation efficiency by managing remote systems and executing tasks from a command line interface. Also supports Windows PowerShell to provide a command line interface (CLI) to Windows servers. 9. Provides dynamic, real-time, and historical reports into hardware, software, patches, and operations activities in complex,heterogeneous data Centers. Includes out-of- the-box compliance reports and at-a-glancecompliance status with actionable links to servers, policies, and other objects. Exports reports to HTML and comma-separated values (CSV) formats. 10. To support audit and remediation against industry best practicecontent such as CIS, MSFT, 11 .Provision to run book automation capability, which provides out of the box workflows for IT infrastructure and there is no limit on the number of workflows that can be deployed. 12. Run book automation has an options for both private cloud, data center as well as if it required may extend to public cloud environment for the future usage purpose.
27.	Database supported for	1. Oracle, 2.DB2, 3.Sybase, 4. MySQL,, 5.PostgreSQL,
28.	Database Management System	1. Table-space information used/free, 2. List of Top sessions CPU/memory/IO consumption with history, 3. Undo/Temp space usage with history, 4. Top wait events in database, 5 .Memory usage SGA/Shared pool, 6.Disk Read/Write Latency Monitor, 7.Monitoring block locks, 8. Overall databasehealth status in single dashboard, 9. Database query monitoring

29.	Storage Management	1. Support for various storages type like NAS, SAN, etc., 2. IOPS at LUN level, 3. Hosts/WWNs connected to the storage, 4. Disk usage at LUN level, 5. The EMS software to be compatible with open stacksolutions (compute, Storage, applications, OS etc.)
30.	The number of network devices managed by the offered product	1000,
31.	The offered product scalable up to for Network device management	10000

32.	Network Fault, Availability and Performance Management System	1. The Network Management functionmonitors performance across heterogeneousnetworks from one end of the enterprise tothe other. 2. NMS provides integrated fault, performance Monitoring, Configuration & compliance Management together in onetool., 3 .Tool supports MIB-II and enterprise MIB for performance management Device certification be part of the tool, 4. The tool supports for SNMP traps, 5 .The framework of the tool enables consolidation of the management of various networking devices (network, security, storage, virtualized platform etc.), along with the infrasupporting devices in a single view Tool be open for third party integration via (soap, xml, web-service, snmp-v1, v2, v3), 6. Overall hardware monitoring including temperature; Fan Status; Power Status; Power Consumption of standalone and blade infrastructure, 7 .It be able to ascertain the latency in socket programming, if any In a client-server architecture with several remote hosts communicating with a central clusterserver, it might develop latency due tonetwork congestion or due to database impropriety, 8. Solution be able to monitor ISP service provider SLA, 9. Packet loss monitoring, 10. Route tracing and link quality monitoring, 11. Traffic and bandwidth usage monitoring, 12. Resource Monitoring capability, 13. RealTime Event Analytics, 14. Fan speed monitoring and CPU/HDD / motherboard temperature monitoring, 15. Custom metric monitoring via SNMP (Simple NetworkManagement Protocol) v2 or v3, 16. IP Printer availability monitoring, 17. Pre-defined alerts for typical network

		problems, 18. To be pre - integrated, centralized and consolidated platform to manage network devices
33.	Network Discovery Management System	1. To allow for discovery to be run on a continuous basis which tracks dynamic changes near real-time; in order to keep the topology always up to date. This discovery runs at a low overhead, incrementally discovering devices and interfaces. 2. The tool automatically discover different type of heterogeneous devices (all SNMP supported devices i.e. Router, Switches, LAN Extender, Servers, Terminal Servers, Thin-Customer and UPS etc.) and map the connectivity between them with granular visibility up to individual ports level. The tool to be able to assign different icons/ symbols to different type of discovered elements. It shows live interface connections between discovered network devices, 3 .It supports various discovery protocols to perform automatic discovery of all L2, L3 Network devices across infrastructure and any further Network connectivity's planned in future., 4 .The tool to be able to discover IPv4 only, IPv6 only as well as devices in dual- stack. In case of dual stack devices, the system to be able to discover and show both IPv4 and IPv6 IP addresses. 5. The tool to be able to work on SNMP V-1, V-2c & V-3 based on the SNMP version supported by the device. Provide an option to discover and manage the devices/elements based on SNMP as well as ICMP. 6. The proposed Network Fault Management solution supports extensive discovery mechanisms and easily discover new devices using mechanisms such as SNMP Trap based discovery. It also allow for inclusion and exclusion list of IP address or devices from such discovery mechanisms. 7. To provide a detailed asset report, organized by vendor name, device type, listing all ports for all devices. The Solution provides reports to identify unused/dormant Network ports in order to facilitate capacity planning. 8. Able to Group Interfaces into One Group and tag it with Vendor Name., 9. In Topology view we be able to Color code each ISP provider with different color. 10. REST API Integration for

		GIS map (Bharat map), 11. Customized Map & Topology & Geo Map., 12 .Dynamic Network mapping capability. 13. Application and service discovery based on SNMP.
34.	Network Dashboard and Reporting System	1. The NMS has risk and compliance dashboard across the network and datacenter components, providing an easy to understand dashboard of Cis with CVE risks and integrated remediation processes. 2.Disk space, Memory utilization and Networkinterface status monitoring, 3 .Process memory and CPU usage / CPU loadmonitoring., 4 .NMS provides out of the box Risk Visibility Dashboards of network infrastructure. 5 .Trend analysis and instant drill down capability to get to know the peaks be available. 6. The tool suppress events for all the network elements that are down for routine maintenance, to assist faster root cause determination while preventing flooding of non- relevant console messages.It has the provision of appropriating parent- child relationship between all the networking devices in the network. 7. Availability, Uptime and response time monitoring, 8 .NMS User Accounting / Administration Management capability.
35.	Advance Network Management Features	1. Hypervisor-based VNF infrastructure network management. 2. NMS supportsClass based (QOS) Quality Of Service., 3. NMS supports Industry-leading support for physical, virtual, and SDN-enabled devices like Cisco ACI, VMWare NSX, Viptela, BigSwitch Networks, etc., 4. NMS provides network Trap Analytics out of the box. 5. NMS supports out of the box monitoring, 6. Diagnostic Analytics providing change-Correlated Performance Views and shows the difference either in either a side-by-side, or line-by-line presentation, 7. The offered product has diagnostic analytics capabilitythat able to visually correlate performance and configuration changes of all network issues. 8 .NMS provides Chat Ops functionality out of the box. 9. Provides Hypervisor or Virtual Machine monitoring. 10. Provides Wireless infrastructure availability monitoring, 11. Provides IP phone availability monitoring, 12. Provides NMS Security Management capability, 13. Provides Built-in NMS Diagnostic Tools.

		14. Provides Distributed monitoring. 15. Provides Free Upgradation to Higher Version within support period.
36.	Network Automation and configuration Management System	1. The system be able to clearly identify configuration changes / policy violations/ inventory changes across multi- vendor network tool., 2 .The system supports secure device configuration capture and upload and thereby detect inconsistent “running” and “start-up” Configurations and alert the administrators, 3.The proposed fault management solution to be able to perform “load & merge” configuration changes to multiple network devices. 4. EMS to be able to push IOS patch to a pre- defined group of network devices in a defined schedule interval of time. 5. The proposed fault management solution be able to perform real-time or scheduled capture of device configurations. 6. Tool supports automated Change Plans including but notlimited to: Conditions to validate, Pre- Change Validation, Change Script (similar to legacy Command Script), Post-Change Validation, Rollback Script., 7. NMS has built-in audit and compliance policies for industry best practices/ Gov. regulations like PCI, HIPAA, NERC others…, 8. NMS supports 3-Dimensional Compliance Model - Configuration, Software, Running State, 9. NMS provides Automate NetworkOperations and Orchestration, 10. Able to restart selected Switches or Routers with one click, 11. Baseline & running Configuration and compliance management
37.	The proposed system be able to administer configuration changes to network elements by providing toolkits to automate the administrative tasks of effecting configuration changes to network elements:	1. Capture running configuration, 2. Capture start-up configuration; 3. Upload configuration; 4. Write Running Configuration, 5. Upload firmware.
38.	Network traffic Analysis System	1. To be able to capture, track & analyzetraffic flowing over the network via different industry standard traffic capturing methodologies viz. Net Flow, jflow, sFlow, IPFIX etc., 2. To provide key performance monitoring capabilities by giving detailed insight into the application traffic flowing over the network. 3. Able to monitor network traffic utilization, packet size distribution, protocol distribution, application distribution,

		top talkers etc. for network traffic. 4. To collect the real-time network flow data from devices across the network and providereports on traffic based on standard TCP/IP packet metrics such as Flow Rate, Utilization,Byte Count, Flow Count, TOS fields etc., 5. Support for latest version of FLOW protocols.
39.	Number of messages per second flow supported by EMS	500.0 - 500.0 Or higher
40.	Multiprotocol Label Switching Service (MPLS) Monitoring	1. Monitors MPLS service availability and inventory, in addition to traditional Layer-, 2. Virtual Private Networks (L3 VPN), L2 VPN, core traffic engineering, and pseudo- wire management. 3. Improves uptime with continuous MPLS-specific core, Layer-2 and Layer-3 discovery, monitoring, and alerting. 4. Provides inventory view of L3 VPNs, detailed views for an L3 VPN, including VRFs and VRF details. 5. Provides monitoring of VPN Routing and Forwarding (VRF) state and incident/status-propagation for L3 VPNs., 6. Provides LSR core view andlaunch from LSR view to other views showing node-centric MPLS services. 7. Ithas out of the box support for Virtual Private Wire Service (VPWS) and Virtual Private LAN Service (VPLS), 8. Provides monitoringof traffic engineering tunnel status and incidents. 9. Visualizes and monitor trafficengineering hops/path and Inventory view of traffic engineering tunnels in detail. 10.Provides inventory view of pseudo wires and monitoring of pseudo wire status and incidents.
41.	Provides out of the box Reporting such as:	1. LSR reports, 2.Site reports (VRF), 3.Site- to-site quality-of- service reports; 4.VPNreports, 5. Link Utilization and Down Time Report
42.	Network Reporting & Analysis Features	1. Able to collect and collate information regarding relationship between IT elementsand business service, clearly showing how infrastructure impacts business service levels. 2. Provision for user configurable for building additional reports and have customizable reporting and Integrated report editor. 3. Able to collect Key performancemeasurements and statistics from all network domains and store it. This data is to be used for evaluation of performance of the end to end network infrastructure/services., 4. Network Link utilization and down time

		report generation facility in graphical and tabular format, 5 .The system be capable to store the raw data or polled data, and also have the facility to automate the backup process or allow to take manual backup, in case required, 6. All alarm messages to be recorded in a database for easy, efficient and future retrieval and not to have a text based approach, where in any 3rd party tool is not able to extract data, 7. Centralized Reporting & Dashboard - The Dashboard and reporting engine provides centralized view as the face of all the elements in the IT (network, server, application and database), 8. Reporting: To provide business users with highly interactiveand power-users with highly sophisticated, pixel-perfect reports., 9. Web-based interactive reporting for business users, Rich graphical report designer for power users, Parameterized reports with powerful charting,Output in popular formats: HTML, Excel, CSV, PDF, RTF., 10. Analysis: To have the ability to explore data by multiple dimensions such as customer, product, network and time for business users. 11. Report generation facility for Bandwidth utilization and down time reports of internet links and devices in graphical and tabular format. 12. Scheduled report emailing.
43.	Number of years for which EMS Capable to store raw data or polled data	1
44.	Number of years for which EMS capable to generate reports of links & devices at any given point of time	1
45.	The performance management system to be able to collect and report data like	1. Packet delay and packet loss; 2. User bandwidth usage rate, 3. Network availability rate, 4. CPU usage rate; 5. Input/output trafficthrough physical ports, 6. Input/output traffic through logical ports
46.	The Performance Management have user defined set of reports like	1. Summary Reports for specific groups: Reports displaying per group of resources thegroup aggregations for a set of metrics (for example, per City, the maximum traffic orthe total traffic). 2. Summary Reports for specific Resources: Reports displaying for a set of resources the period aggregations for the same set of metrics (for example, per interface, the maximum traffic over the day), 3. Detailed chart Reports: Reports displaying for one resource and the same set of metrics the values over the period (for example, the

		raw collected values for the day). 4. Resource Threshold Violation Reports: Reports displaying the resources for which a threshold was violated, 5. Detailed chart Reports: Reports displaying for one resource and the same set of metrics the values overthe period (for example, the raw collectedvalues for the day). 6. Resource Threshold Violation Reports: Reports displaying the resources for which a threshold was violated. 7. Report to be in pdf, excel, csv format and scheduling facility in email to concerned users.
47.	Helpdesk Management System	1. Able to support and handle large volumeof incident, service requests, changes, etc., 2. Solution be able to integrate with third party IVR or CTI, 3. Tool Analytics be completely configurable in terms of source data and results, enabling Process Managers and other IT Users to proactively identify trends that can be used to drive action. Multiple instances shall be allowed to be configured indifferent ways in different modules for different outcomes - for example one be able to identify trends in one set of data and subsequently develop linkages with other data, or Analytics can run on top of reporting results to provide further insights from unstructured data., 4.The tool has the knowledge management OOB – knowledge databases to support investigations, diagnoses, root cause analysis techniques, and creating / updating workarounds, temporary fixes and resolutions, 5. The tool allows the creation of different access levels (i.e. Read only, write, create, delete) to knowledge management system (), 6. The Knowledge Management solution be available in a Multi Tenanted environment, 7. Helpdesk TOOL has to provide big data analytics, machine learning, hot topic analytics that helps to analyze commonservice request, optimize changemanagement. It be possible to create support /knowledge articles for hot topics. 8. The proposed helpdesk solution supports codelessconfiguration of processes that can be upgraded seamlessly without the need to reconfiguration of processes., 9.The proposed helpdesk solution creates service catalogueusing drag and drop method., 10. A virtual bot be available, which can respond to user

		requests, immediate via portal, email ormobile interfaces. 11. Support for email and SMS both (integration with SMS-gateway and GSM communication) should be available for sending of Alerts and scheduling Reports, 12. Help Desk has built- in service management module, which allowsIT operations to document all the contracts and services, they have under their control, 13. Help Desk has known error database that allows IT operations to document known issues in order to speed up the resolution process, 14. Whenever a fault arises in the IT infrastructure, a ticket should get automatically logged as an incident in the help desk tool and gets assigned with predefined SLAs to the maintenance team., 15.Solution provides following: E-mail andSMS Alert notifications, Alert escalation, Alert acknowledgement., 16. The offered product capable to support REST API based integration with ticketing tools
48.	Helpdesk tool CONSIST OF	1. Incident management, 2. Problem Management, 3. Change Management, 4. Knowledge Management, 5. Service Level Management, 6. Service Asset and Configuration management, 7. Service Catalogue and Request Fulfilment
49.	Operations Related Service Level Parameters	1. To supports comprehensive SLA management platform, 2. Manage service levels for delivery and support of business services, 3. Allowscreating and applying various operational level parameters to Incidents, Requests, Changes, and Release management modules. 4. The module links available support hours to service levels when calculating deadlines as well as suspend SLA calculation for certain criteria – e.g. 'pending information from customer', 5. The SLM module integrates with incident and problem management to automate escalation, and notification activities based on response and resolution targets, 6. It also integrate with change management to provide access to service level agreement details, implementation windows, change blackout periods, and availability requirements, 7 .The application has a predefined/customizable field to indicate & track the progress/status of the lifecycle of ticket(s)., 8. The tool provides an audit trail,

		tracking & monitoring for record information and updates from opening through fulfilment to closure For example: IDs of individuals or groups opening, updating & closing records; dates / times of status & activities updates, etc.
	Infrastructure Related Service Level Parameters	1. The product be able to measure, collect, and import performance and SLA data from awide range of sources, including performance Management modules. 2. Computes the quarterly service charges payable to the different agencies after applying the penalties as per the contract and SLA. This may be achieved throughcustomization/ development of tool, wherever required. 3. To supports SLA violations alerts during the tracking period., 4.To supports managing and maintaining afull history of an SLA., 5.To provides a flexible framework for collecting and managing service level templates includingService Definition, Service Level Metrics, Penalties and other performance indicators measured across infrastructure and vendors., 6.Ability to define and calculate key performance indicators from an End to End Business Service delivery perspective., 7. To supports SLA approval/validation workflow. 8. View of Contract Parties & current SLA delivery levels. 9. To supports SLA Alerts escalation and approval process. 10. Tosupports capabilities for investigating the root causes of failed service levels.
50.	IT Asset Auto-Discovery and Inventory Management	1. Discovery works without requiring agent installation (that is, agent-less discovery)while discovery Layers 2 through Layers 7 ofOSI model, 2 .Uses Industry-standard protocols such as WMI, SNMP, JMX, SSH toperform discovery without requiring the installation of an agent, 3. Discovery system has ability to modify out-of-box discovery

		scripts, create customized discovery scripts, 4. Discovery system has the ability to capture configuration files for the purposes of comparison and change tracking, 5. Discovery system be capable of supportingrole-based access to various aspects of CMDB administration, 6. Discovery be object-oriented, allowing specific CIs and relationships to be discovered using a library of discovery patterns, 7. Discovery engine gathers detailed asset and configuration item (CI) information for specific servers and the applications running on them, 8. It dynamically discover and continuously map IT hardware inventory and service dependencies, 9. The EMS provides a common configuration management database that has a single solution for discovery ofnetworks devices, servers & desktops, using acommon probe, that supports both agent less and agent based technologies using. 10.Inventory management of each of the equipment to be available 24X7
51.	Configuration Management database (CMDB)	1. Provides a single shared view of services supporting Service Design, Transition and Operations stages of the lifecycle, 2. The Configuration Management Database supports multiple datasets with federation and reconciliation facilities so as to get data from various discovery tools and also throughmanual import process, 3. Reconciliation of data be possible with multiple data providers based on common attributes and ability to define precedence rules on attributes, 4. Federation of external data sources be possible with ability to store common attributes inside CMDB and getting other attributes from external data sources, 5. Automatically create Service models to describe how IT infrastructure supports business services, 6.The CMDB has built-in drift management capabilities to capture and report on infrastructure drift based on infrastructure attributes like RAM, memory, etc., 7. System with CMDB - Integratepeople, process & technology. To help in reducing likelihood of downtime byfacilitating communication across all thefacility equipment while Managing SLAs and Asset Lifecycle with IMAC process. 8. Configuration item to get automatically attached with the ticket to enable

		maintenance team for faster resolution.
52.	Generic Features	1. The offered product to be an integrated, modular and scalable solution from single OEM (i.e. all Network Monitoring, server Monitoring including application and database monitoring and ServiceManagement tools be from single OEM) to provide comprehensive fault management, performance management, traffic analysisand business service management, IT service desk\ help desk \trouble ticketing system & SLA monitoring functionality., 2. It has a secured single sign-on and unified consolefor all functions of components offered for seamless cross-functional navigation & launch for single pane of glass visibility across multiple areas of monitoring & management. 3. To have self-monitoringability to track status of its critical components & parameters such as Up/Down status of its services, applications & servers, CPU utilization, Memory capacity, File system space, Database Status,synchronization status between primary and secondary system and event processing etc. Itprovides this information in real-time throughgraphical dashboards, events/alarms as well as in the form of historical reports. 4. The offered product to be compatible with Open Stack Solutions (OS, Applications, Databases, Storage etc.)
53.	Technical Service Support provided by	1. OEM, 2. VENDOR/SELLER/CHANNEL PARTNER/SYSTEM INTEGRATOR
54.	Number of years for onsite support	0
55.	Number of Engineers available for onsite support	0
56.	Scope of Product/Technical Support provided by the OEM are	14. NA

57.	If Technical support provided by channel partner/vendor/system integrator/seller then whether they are authorized by OEM	Yes
58.	Scope of Technical Support for channel partner/vendor/system integrator/seller are	1. Software Upgradation, 2. Updation withPatches Bug Fixes and Repair of known Issues 3. Remote (via Telephone, Email, Video Calling, etc.) 4. 24 x 7 x 365 Onsite Support. 5. Installation; 6. Integration 7. Configuration 8. End to End WorkflowImplementation. 9. User Acceptance Testing of all modules.
59.	High Severity Priority Issue, P1 Consists of	1. Any fault which causes failure of a critical feature. 2. Significant loss of visibility of application performance or irreparable loss ofdata within the application (such as connectivity to the host server). 3. Customer declared critical issue with the concurrence ofcustomer and vendor management. 4. Anyfault that keeps the system from meeting significantly documented standards orperformance specifications. 5. Any fault that keeps the system from meeting regulatory and safety standards, 6. Discovery of application bug with NO short-term workaround.
60.	"Response Time for Technical Support Level Commitment for High Severity Priority Issue (P1) (Maximum in Hours) (Hint : Select '0' if not applicable)"	60
61.	"Penalty for Non Adherence to P1 Response Time of Technical Support Value (Cumulative Maximum 5 % of Technical Support Value)"	0.05 % per Hour
62.	Medium Severity Priority Issue, P2 Consists of	1. Any fault which causes failure of a non- critical feature of the application, 2. Application is running at a degraded capacity with potential risk of losing critical data, 3. Failures in application performance that requires additional dedicated resources to maintain core application elements
63.	"Response Time for Technical Support Level Commitment for Medium Severity Priority Issue (P2) (Maximum in days) (Hint :- Select'0' if not applicable) "	6
64.	"Penalty for Non Adherence to P2 Response Time of Technical Support Value (Cumulative Maximum 3 % Technical Support Value)"	0.25 % per Day

65.	Low Severity Priority Issue, P3 Consists of	1. Loss of administrative capabilities (non-P1/non-P2), 2. Loss of full feature functionality (non-P1/non-P2), 3. Discovery of application bug with a short-term workaround, 4. Any remote upgrade or support not associated with resolution of a P1 or P2 issue
66.	"Response Time for Technical Support Level Commitment for Low Severity Priority Issue (P3) (Maximum in days) (Hint :- Select '0' if not applicable)"	60
67.	"Penalty for Non Adherence to P3 Response Time of Technical Support Value (Cumulative Maximum 2 % Technical Support Value)"	0.25 % per Day
68.	Additional parameter1Supply, Install, Integrate, Configure, Operate & Maintain the offered solution of EMS tool for 1 years covering all the Data Centre devices such as Routers, Switches, Network Devices, Servers, IT equipment's, VSAT equipment's etc.	The proposed EMS solution must be an industry standard, enterprise grade solutionrecognized by leading analysts (IDC MarketScape/ Gartner Magic Quadrant/ Forrester Wave) in ITSM or NPMD reports
69.	The proposed Helpdesk tool must be 10+ ITIL process pink certification and have a Single Architecture and leverage a single application instance across ITIL processes,	Solution should support multi-tenancy with complete data isolation as well as with abilityfor analysts based on access rights to view data for one, Should provide modern data analysis methods for insight and value to service desk
70.	The tool should allow the user to take a screenshot of the error message and sends it to the service desk. The service desk agent then can pick up the ticket with the information already filled in (category, impact, and assignment	The tool should allow the user to attach a screenshot of the error message and sends itto the service desk. The service desk agent then can pick up the ticket with the information already filled in (category, impact, and assignment

5. Application Performance Management with 3 year warranty

S.no	Requirement
1.	The proposed solution must comprehensively cover the following 5 dimensions of application performance management: 1. End-user experience monitoring by capturing data on how end-to-endperformance impacts the user, and identifies the problem. 2. Discovery of application architecture, modelling and mapping in run-time by discovering the software and hardware components involved in application execution, and their communication paths and establishing the potential scope of problems. 3. User defined transaction profiling by examining user-defined transactions, as they move across paths to identify the source of the problem. 4. Deep-dive in-context component monitoring to conduct deep-dive inspection of the resources consumed by, and events occurring within, the applicationcomponents. 5. Application analytics including technologies such as behaviour learning engines – to crunch the data generated, discover meaningful and actionable patterns, pinpoint the root cause of the problem, and ultimately anticipate future issues that may impact the end user. The proposed solution must be able to deliver all the above mentioned outcomes as part of one integrated user interface with no requirement to launch or accessseparate tools/screens. The information flow among all the modules should be in- context, correlated and seamless without the need to manually correlate and analyse data among multiple disparate tools.
2.	The solution should be in the leader's quadrant in Gartner APM Magic quadrant reports for at least last 5 consecutive years.
3.	The proposed solution should provide both subscription and perpetual licensing models and it should be capable of working on cloud as well as on prem.
4.	The proposed APM platform must support both Linux and Windows flavours for deployment of its core components (such as management server) and should not require any kind of "root access" or "root privilege" to deploy agents in the monitored applications. It should not require internet connectivity for installation or upgrade activities of core components or agents.
5.	The proposed solution should have out of the box support for automatic baselining wherein the solution can automatically learn the behaviour of monitoredapplications and set baseline thresholds automatically for all the monitored metrics,including: i. Application metrics ii. Server metrics iii. End User Metrics iv. Custom Metrics v. BusinessMetrics vi. Database Metrics. The solution must also provide an option of fixed as well as rolling time periods to calculate these thresholds.

6.	The proposed solution must provide an auto-discovered dynamic visual representation of the application topology comprising of components and activities in the monitored application environment. The discovered topology visualization (map) must clearly depict the following information: i) Type of connection between components (synchronous/asynchronous) ii) Calls per minute between components iii) Round trip time of the request between components (including network and

	backend time) iv) Baseline indicators for requests between components The solution should also provide options to manage/configure/customize the visualization (map) to suit the monitoring needs.
7.	The proposed solution must automatically discover end-to-end, cross-component processing paths used to fulfil a request for all services provided by the monitored application, without requiring any changes to the existing application code. After discovering the transactions, the solution should be able to further categorise the transactions into below buckets automatically, based on their behaviour: 1) Normal 2) Slow 3) Very Slow 4) Stalled 5) Errors The solution must be able to automatically segregate and sort these transactions based on load, errors, response times, health violations as well as percentagecontribution to overall application average response time.
8.	The proposed solution must trace and capture every single transaction, calculate theper minute performance (average) and send the results to the platform. The solutionshould then be able to detect poorly performing transactions against anautomatically created baseline and dynamically profile to provide deep code level visibility. The solution should also be able to provide a mapped flow of the problematic transaction with details of participating components and time spent for request completion at each component layer as an end outcome.
9.	The proposed solution must provide diagnostic code level details for problematic transactions including sequential method execution details with method type, class name, method name and line number. The solution should further provide execution time per method with thread state and exit calls to remote services or database instances if any. The solution should also have an option to trigger collection of these diagnostic sessions on-demand for selected transactions, when required.
10.	The proposed solution should provide an option to drill down directly from any problematic transaction to: 1) the server instance which was executing that transaction and provide visibility into health of the server and other transactions getting executed in that node 2) related DB instance in-context with the queries that are being executed 3) in-context OS level metrics 4) correlated application logs from available log files
11.	The proposed solution should also have an option to identify network performance bottlenecks and app/network-interaction bottlenecks using an agent that resides on the application instance without needing any kind of network tapping or data capture appliances. The solution should be able to detect load balancers, TCP endpoints etc. and depict it on a dynamic network map. The solution should also beable to capture network KPIs such as throughput, latency, TCP Loss, SYN/FIN errors, client limited, client zero, TCP retransmission timeouts, server limited, server zero etc. in-context to the problematic application transaction with a provision to drill down from the application transaction to any correlated or contextual network metric.

12.	The proposed solution should provide end to end visibility across all web, mobile and IoT applications including detailed end-user experience analysis to specifically determine: i) geographically where the heaviest application load is originated from, depicted ina geo-map. ii) Geographically where the slowest end-user response are times occurring. iii) Variation in application performance by location, client type, device, browser and browser version, and network connection for web requests. iv) Variation in application performance by application and application version, operating system version, device, and carrier for mobile requests. v) Variation in application performance by slowest web/Ajax requests, and the problem isolation correlated and in context to the backend application server calls. vi) Variation in application performance by slowest mobile and IoT network requests and problem isolation correlated and in context to the backend application server calls. vii) Variation in application performance by errors and crashes on mobile and IoT applications and its root cause. viii) Variation in application performance by web resource performance
13.	The proposed solution must be able to track web and mobile user sessions to analyse any user's behaviour based on users unique ID. There must be a provisionto query for a segment of users with similar behaviour, such as from a specific geo location or visiting a specific page or using a particular device etc. The solution should also support a seamless ingestion of raw session data to an analytics engine to perform slicing and dicing on the data.
14.	The proposed solution should have a robust analytics engine that can ingestapplication performance, custom and business data from multiple sources such as: i. Application transactions ii. End user mobile requests and sessions iii. Application, system or custom logs iv. IOT requests and transactions v. Synthetic requests This analytics module should have a provision to query the ingested data throughUI and also a full-fledged query language to perform advanced analytics to provide insights into application performance impact on a process flow through business journey mapping, impact analysis of an issue over a period of time on users, regions and functionalities, release analytics, conversion of business KPIs to trackable metric, experience level management etc.
15.	The proposed solution should be able to provide in context database monitoring, supporting wide array of RDBMS as well as NoSQL. The solution should be ableto report a) top database activities (e.g. Top SQL, Top Users, Top Programs); b) database activity profile over-time (identify patterns); c) Collect and store all database wait events and correlate with SQL/Stored Procedures; d) Collect and store SQL/Stored Procedure Key Performance Indicators (CPU, Count, Reads/Writes) e) Collect and store database instance level statistics (table size, row count, indexes) f) Collect and store database server/host Key Performance Indicators (CPU, Memory) g) breakdown of latency of stored procedure components

	h) Collect SQL Explain & Execution plans i) Collect and store performance data on database Objects (Schemas, tables,indexes)
16.	The proposed solution must provide comprehensive coverage for container based micro services monitoring along with container orchestration layer monitoring support. The solution should be able to monitor the container images and the services running on those images. There should be no requirement to change the container images to enable monitoring in case of applications based ontechnologies like Java. The solution should also be capable of pulling information from the orchestration layers like Kubernetes/Open Shift and present relevant metrics like pod metrics, node metrics, deployment metrics, endpoint metrics etc.
17.	The proposed solution should provide contextual monitoring of OS level metrics and provide auto correlation to the application performance. The server OS level monitoring should include general server visibility, process, volume and network metrics. There should be seamless correlation between server and application metrics through UI on the same screen without having to switch UIs.
18.	The proposed solution must have a robust alert and respond engine that leverages multiple data inputs into analysis (app performance data, machine data, analytics data and user provided data), uses Boolean logic to combine multiple conditions through AND / OR logic, has capability to disable rule evaluation temporarily for predetermined maintenance windows, can trigger alerts or notifications when rules are violated (email, SMS or custom), can utilize complex logic to combine different metrics into one trigger/alert.
19.	The proposed solution should provide mechanisms (API based or other methods) totake data feeds from various infra providers - cloud platforms, software defined data centre and networking platforms as well as send data feeds and trigger actions into hybrid cloud management platforms, application resource scalability and optimization platforms and service management platforms. It should facilitate auto remediation of problems based on alert triggers and pertinent action workflows through these integrations.
20.	The proposed solution platform should be highly scalable supporting up to 10000 agents reporting to one managing server without the need of federation of datafrom different collectors, to ensure TCO minimization and support envisaged landscape growth.

6. NETWORK BEHAVIOUR ANAYLSER AND DETECTION with 3 year warranty

S.NO	**REQUIRENMENT**
1.	SIEM and NBAD/NTA should be from right day 1 from same OEM.
2.	Solution should have UEBA and AI and ML right from Day 1 and from same OEM as SIEM.
3.	Solution should work out-of-line (meaning not in-line) without using SPAN/ mirror traffic.
4.	Solution should use a scalable approach of taking network flows in net flow and s flow format to analyse all north-south as well as east-west traffic apartfrom the logs from all end-points, servers, and firewall.
5.	Solution should be able to identify the infection by taking into account suspicious network traffic, behaviour, source and destination. Not requiring

	to interact directly with the infected device(s) / hosts.
6.	Solution should monitor and detect all outbound and inbound command and control traffic.
7.	Solution should be able to work with SMTP, POP3, and IMAP traffic.
8.	Solution should be able to work with UDP traffic.
9.	Solution should either be Hardware / Appliance based. Bidder shall take care of the sizing requirements.
10.	Solution should be able to work with non-standard TCP Port traffic.
11.	Solution should be able to integrate with the SIEM.

7. Servers with 3 year warranty

S.NO	**REQUIRENMENT**
	Server should be a vSAN certified ready node Security: Server should have Hardware (Silicon) root of trust, Cryptographically signed firmware updates, system drift detection and secure erase security features inbuilt. SAP Certification: Server should be SAP HANA certified.
	Inbuild Server Management
i	Software should be from the same H/W OEM and should integrate with 3rd party vCenter and System Centre, Nagios, CA management console etc.
ii	Server Monitoring: Should be able to monitor all system health and systems components (CPU,RAM, HD, FANS, Power Supplies, BIOS, HBA's, NICs, CNA's) through dash board.
iii	Power & Temperature monitoring: Should support Real-time power meter, graphing, thresholds, alerts & capping with historical power counters, Temperature monitoring & graphing through dashboard
iv	HTML5 support for virtual console & virtual media without using Java or ActiveX plugins, the servers should have dedicated secure Remote management port.
v	Server management console should work seamlessly with existing Open Manage server console Mounting of server in existing rack in Data center along with Power supply and Network cabling, installation and configuration of systems, physical connectivity to the switches via FC cables in RailTel Data centre along with supporting cable for HCI configuration. Conducting Power On Self-Test (POST) of all compute Network and storage
	Basic server installation and management training to be provided by theOEM or Authorized distributor/Partner of OEM.
A	Material required for Installation and commissioning of Servers and switches in Data centre to be supplied by Bidder (Patch cords, patch cable connectors etc.
B	The OEM for the proposed server must be in Leaders quadrant in the last two Gartner's report of "Magic Quadrant for Modular Servers".
C	Intel C621 or higher
D	Max. 2U rack mounted with sliding rails.

E	Should be populated with 2nos. of Intel Xeon Skylake CPU architecture, each CPU should be 16 core 2.3Ghz or more.
F	24 DDR4 DIMM slots RDIMMS& LR DIMMS supporting speeds up to 2933MT/s. Optionally support up to 12 DIMM & 12 NVDIMM
G	Configured with 128GB using 32 GB DIMM's scalable to 1.5TB
H	Front drive bays: Up to 24 x 2.5" SAS/SATA/SSD
I	12Gbps PCIe 3.0 with RAID 1, 5, 6,10, 50 with 4Gb cache
J	2 nos. of 240GB BOSS card or SATA/SAS SSD in mirrored configuration for OS & 3 nos. of 960 GB SSD SAS and 6x2.4 TB 10k rpm SAS drives.
K	DVD RW
L	Up to 6x PCIe Gen3 Slots
M	2 x 1G RJ45 and 2 x 10G SFP+ populated with Multimode Transceivers.
N	Should support VMware vSphere & VSAN Enterprise Lic. Or Similar etc.
O	Microsoft Windows Server, Hyper-V, VMWare, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES)
P	Platinum rated redundant Power Supply RailTel/Tender/CO/DNM/2020-21/DC Infra Services/565 Page 10 of 38
Q	Dual SD Module slots supporting redundant configuration.
R	Support for integration with Microsoft System Center, VMware vCenter.
S	Real-time power meter, graphing, thresholds, alerts & capping. Temperature monitoring & graphing
T	Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD.
U	Bundled with purpose-built hypervisor with minimal footprint that installs directly on the bare metal x86 server hardware with no dependence on a general purpose OS for greater reliability and security. With ability to create new virtual machines from scratch or based on templates (created from fully configured virtual machines) supporting support for heterogeneous guest operating systems like windows, Suse, Linux etc.
V	Virtualization management software console should provide a single view of all virtual machines, allow monitoring of system availability and performance and automated notifications with email alerts.
W	The virtualization management software should provide the core administration interface as a single Web based interface. This interface should be flexible and robust and should simplify the hypervisor control through shortcut navigation, custom tagging, enhanced scalability, and the ability to manage from anywhere with Internet Explorer or Firefox-enabled devices. Virtualization management software console should provide reports for performance and utilization of Virtual Machines. It shall co-exist and integrate with leading systems management vendor

8. Red Hat OS

S.NO	REQUIRENMENT

S No	Part No.	Product	Tenure	Quantity
1	RH00001	Red Hat Enterprise Linux for Virtual Datacenter ,Premium	1 Year	60
2	RH00003	Red Hat Enterprise Linux Server for Virtual Datacenter, Premium (Physical or Virtual Nodes)	1 Year	30
3	RV0213787	Red Hat Virtualization (2-Socket), Premium	1 Year	60
4	RH000032	Smart Management for Ultimate guests	1 Year	60
5	RH000031	Smart Management - 1 guests	1 Year	30

9. Red J Boss

S.NO	REQUIRENMENT

S No	Part No.	Product	Tenure	Quantity
1	MW0161758	Red Hat JBoss Enterprise Application Platform, 64-Core Premium	2 Year	7

******* End of EOI Document ******