

NOTICE INVITING EXPRESSION OF INTEREST**EOI NO. RCIL/SR/ERS/2025-26/EOI/01 DTD. 11-04-2025****Expression of Interest (EOI) For****“Replacement of Network equipment in various offices of KSEBL –
Migration of existing MPLS Network to SDWAN under RDSS Scheme”**

Issued by:

RailTel Corporation of India Ltd*(A Nava-Ratna PSU under Ministry of Railways)**Kerala Territory Southern Region,**1st Floor Eastern Entry Tower Ernakulam Junction**Railway Station Ernakulam, 682016*

Disclaimer

RailTel Corporation of India Ltd. (herein after called the RailTel) has prepared this Expression of Interest (EOI) document solely to assist prospective bidders in making their decision of whether bid or not to bid.

While the RailTel has taken due care in the preparation of information contained herein and believes it to be accurate, neither the RailTel or any of its Authorities or Agencies nor any of their respective officers, employees, agents or advisors give any warranty or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it. This information is not intended to be exhaustive and interested parties are required to make their own inquiries and do site visits that it may require in order to submit the EOI. The information is provided on the basis that it is non-binding on RailTel, any of its authorities or agencies or any of their respective officers, employees, agents or advisors. The RailTel reserves the right not to proceed with the bidding/EOI process at any stage without assigning any reasons thereof, or to alter the timetable reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the EOI further with any party submitting an EOI. No reimbursement of cost of any type will be paid to persons or entities submitting the EOI

EOI NOTICE

RailTel Corporation of India Limited,
Kerala Territory Office, 1st Floor,
Eastern Entry Tower,
Ernakulam South Railway Station,
Ernakulam-682016

EOI NO. RCIL/SR/ERS/2025-26/EOI/01 DTD. 11-04-2025

RailTel Corporation of India Ltd., (here after referred to as “RailTel”) invites EOIs for Selection of Partner Request for Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme (here after referred to as KSEBL), from RailTel Empanelled/In Process of Empanelment Business Associates for exclusive TEAMING ARRANGEMENT for the following “Request for Proposal (RFP) for Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme”

KEY INFORMATION

Closing date for Submission of e-Bids	17-04-2025 at 15:00 Hours
Date of opening of E-Bids	17-04-2025 at 15:30 Hours
EMD at the time of submission of bid	Rs. 5,00,000/-
Bid Validity Period	210 days
e-Eoi portal for Submission of Bids	https://railtel.eNivida.com
Cost of Eoi Document	Nil
Place of Opening of Eoi	Online RailTel Corporation of India Limited, Kerala Territory Office, 1 st Floor, Eastern Entry Tower, Ernakulam South Railway Station, Ernakulam-682016

Note:

RailTel reserves the right to change the above dates at its discretion. Bids received after due date and time will be summarily rejected.

Eoi Notice and link for Eoi Document are available on RailTel’s website and e-Eoi portal <https://railtel.eNivida.com> for download. For online bid submission the bidder will have to necessarily download an official online copy of the Eoi documents from e-Nivida Portal. All future Information viz. corrigendum/addendum/ amendments etc. for this Eoi shall be posted on the RailTel’s website and e-Eoi Portal only. Printed copy of Eoi document will not be sold from RailTel office. Bid will be submitted online on e-Nivida Portal only.

Sd/- (JGM/TERRITORY MANAGER)

Earnest Money Deposit (EMD)

- 1) **EMD payable:** To be submitted by the selected BA shall be submitted in the form of Bank Guarantee/Online Bank Transfer/Fixed Deposit as Total EMD, including the EMD submitted.
- 2) EMD Rs **5,00,000/-** is to be submitted at the time of submission of EOI in the form of RTGS/Bank Guarantee/Fixed Deposit.
- 3) **Validity of the EMD:** The EMD shall be valid till the finalization of end customer RFP/Tender i.e. award of order and till submission of Performance Guarantee of requisite value with due regards to the validity of the offer.

Bids without EMD will be summarily rejected.

The EMD should be in the favour of RailTel Corporation of India Limited payable at Secunderabad through online bank transfer. The Partner needs to share the online payment transfer details like UTR No. date and Bank along with the proposal.

RailTel Bank Details for Submission of EMD / PBG :

Union Bank of India, **Account no. 327301010373007**, **IFSC Code: UBIN0805050**.

Demand Draft shall be submitted in Favor of RailTel Corporation of India Limited payable at Secunderabad.

EMD will be forfeited in case of non-submission of remaining EMD and PBG in time. EMD of unsuccessful Bidders will be refunded by RailTel on finalizing the EOI.

Eligible Business Associates are required to direct all communications related to this Invitation for EOI document, through the following Nominated Point of Contact persons:

Contact Details for this EOI:

Level: 1 Contact: Shri. Suvin Varghese, DM/Marketing/Ernakulam

Email: suvinvarghese@railtelindia.com Contact: +91-8075285582

Level: 2 Contact: Shri. M Pazhanivelan, JGM/Ernakulam

Email: pazhani@railtelindia.com Contact: +91-90031 44207

Note to Bidders:

1. The response to EOI is invited from **Eligible Empanelled/In Process of Empanelment Partners of RailTel only.**
2. All the document must be submitted with proper indexing and page nos.
3. This is an exclusive pre-RFP partnership arrangement with empanelled business associate of RailTel for participating in the end customer RFP. Selected partner's authorized signatory has to give an undertaking that they will not submit directly or indirectly their bids and techno- commercial solution/association with any other Organization once selected through this EOI for pre- bid teaming arrangement (before and after submission of bid to prospective customer Organization by RailTel). **This undertaking has to be given with this EOI Response.**
4. Transfer and Sub-letting: The Business Associate has no right to give, bargain, sell, assign or sublet or otherwise dispose-off the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.
5. Bidder has to agree to comply with all OEM technical & financial documentation including MAF, Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP as applicable and further issued corrigendum's as mentioned below:

Detail regarding END CUSTOMER Tender for reference:

End customer Tender Ref. No.	RFP No. CEIT/ITCSD/15/2024-25 dated 28.12.2024
Tender ID	2024_KSEB_720983_1
Date of floating by End customer	31.01.2025
Closing time & date	21.04.2025 at 18.00 hrs
Floated on portal	etender Kerala Portal (https://etenders.kerala.gov.in/)

6. Bidder also shall undertake to submit MAF of major items of the proposed solution and other documents required in the end Customer Organization's tender in favour of RailTel against the proposed products. The selected BA has to provide MAF from the OEM in the name of RailTel for bidding in the concerned tender of KSEBL, if their proposed solution is quoted to the customer as applicable and required.
7. The selected bidder will have to accept all Terms & Conditions of KSEBL RFP on back-to- back basis, wherever applicable.
8. Any corrigendum(s) issued by KSEBL against pertinent tender/RFP shall be the part and scope of this EOI document on back-to-back basis and the BA's shall be on the lookout of corrigendum's issued from time to time by RCIL & KSEBL, in the interest of their own Bid.
9. No exemption/relaxation is applicable to MSME/Start-ups.

10. Only, the eligibility clause/criteria and marks scoring criteria for SI/BA (Prospective BA/SI) as mentioned in KSEBL's RFP is not applicable on the Bidder/BA applying against this EOI. Rest all Terms & Conditions of RFP floated for pertinent tender will be complied by SI/BA/Bidders.
11. However, OEM considered by SI/BA for this project have to mandatorily comply all the eligibility & technical criteria/compliance on back-to-back basis in line with end customer RFP and corrigendum(s) issued thereof.
- 12. Please refer KSEBL RFP Payment terms as this will remain applicable on back-to-back basis on Successful bidders. Payment shall be made only after actual receipt of payment from KSEBL on submission of required documents.**
13. Bidder may check the price/commercial bid as per BOQ and match the same with FORMATS FOR SUBMISSION OF THE COMMERCIAL BID of KSEBL RFP and if found any discrepancy, may be brought to the notice of RCIL immediately and may modify their financial bid format as per KSEBL RFP financial bid document.
14. This is a customer centric bid on back-to-back basis and therefore the benefits of MSME shall not be applicable on this EOI & Work Order.

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1 About RailTel

RailTel Corporation of India Ltd (RailTel) is one of the largest neutral telecom infrastructure providers in the country owning a Pan-India Optic fibre network on exclusive Right of Way (ROW) along Railway track. The OFC network presently reaches to over 4500 towns & cities of the country including several rural areas. With its Pan India high-capacity network, RailTel is working towards creating a knowledge society at various fronts. The portfolio of services provided by RailTel includes Data Centre & DR services, Tele-presence as a service, NLD services, IP-1 services, Internet and Broadband services on a pan-India basis.

Equipped with an ISO 9001, 20000-1:2011 & 27000 certification, RailTel offers a wide gamut of managed telecom services to Indian Telecom market including Managed lease lines, Tower co location, MPLS based IP-VPN, Internet, Data Centre services, NGN based voice carriage services to Telecom Operators, Dark fibre leasing to MSOs/LCOs. The major customer segment for RailTel comprises of Enterprises, Banks, Government Institutions/Department, Educational Institutions/Universities, Telecom Service Providers, Internet Service Providers, MSOs, etc. RailTel being a “Nav Ratna (Category-I)” PSU is steaming ahead in the enterprise segment with the launch of various services coupled with capacity augmentation in its Core network.

The main Project of RailTel/ERS Territory on hand are KFON, KSWAN, Wi-Fi service at Kerala Govt. Secretariat, E health Mission, IOCL, VSS Project etc.

(Please visit railtelindia.com for more insight)

2 Background of EOI

RailTel Corporation of India Ltd (hereafter referred to as ‘RailTel’) an ICT arm of Indian Railways has been in the forefront of building innovative platforms and solutions and vision to build range of Information and Communication Technology (ICT) Services for its customers.

In this context, RailTel intends to participate in response to the RFP floated by KERALA STATE ELECTRICITY BOARD Ltd as above (hereafter referred to as ‘KSEBL’) and accordingly seeks to select a suitable partner for pre-bid arrangement through this Eoi for the work of “Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme”

Bidder has to agree to comply with all OEM technical & financial documentation including MAF, Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP. Bidder also shall undertake to submit MAF of major items of the proposed solution and other documents required in the end Customer Organization tender in favour of RailTel against the proposed products. The selected BA has to provide MAF from the OEM in the name of RailTel for bidding in the concerned tender of KSEBL, if their proposed solution is quoted to the customer, wherever applicable.

The details of tender are as below:

Tender Title: Request for Proposal (RFP) for "Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme"

Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum / clarifications. **Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>)**

Method of Quoting

System Integrator (SI)/BA shall quote for single OEM/ make and model for each item description, subject to the confirmation of the given specification equivalence. The make and model shall be clearly mentioned in the proposal. However the subsistence/subcomponents offered shall be compatible with inter-operability to the main system, if different makes/models offered. Deviation to be this will not be accepted/shall be summarily rejected, Wherever applicable.

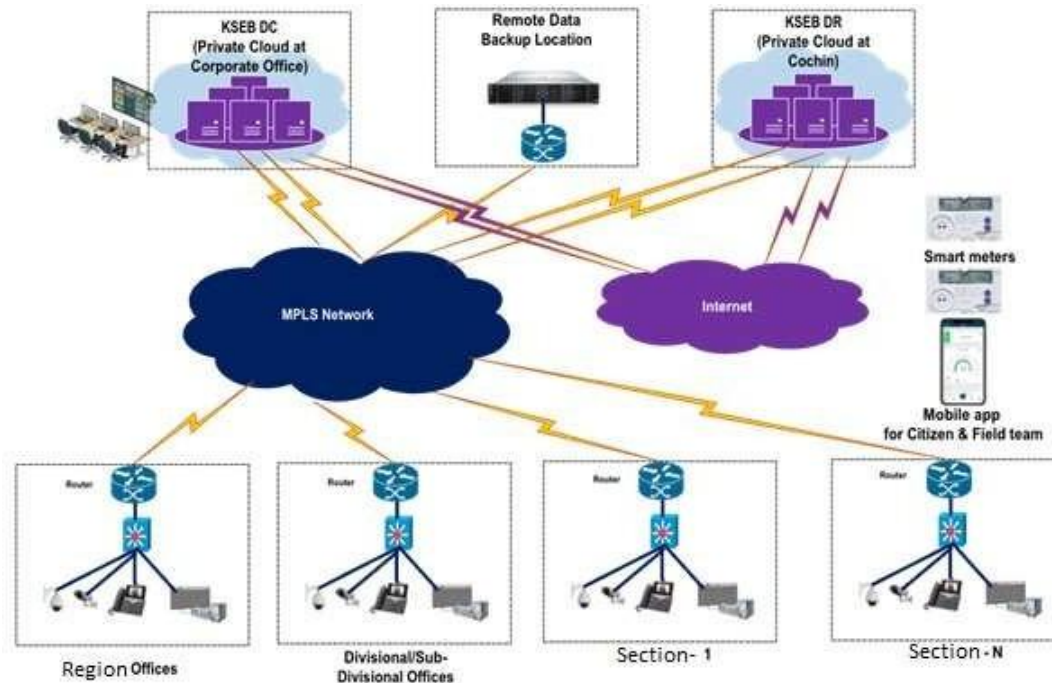
3 Scope of Work & Partner Selection

The scope of work will be as mentioned in the pertinent end Customer organization RFP/Tender for "Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme" on the website (<https://etenders.kerala.gov.in/>) with all latest amendment/Corrigendum/ clarifications. All materials that propose to use with the work shall be approved by the Employer / Engineer-in-charge. The scope of work is subject to addition / deletion by the Employer.

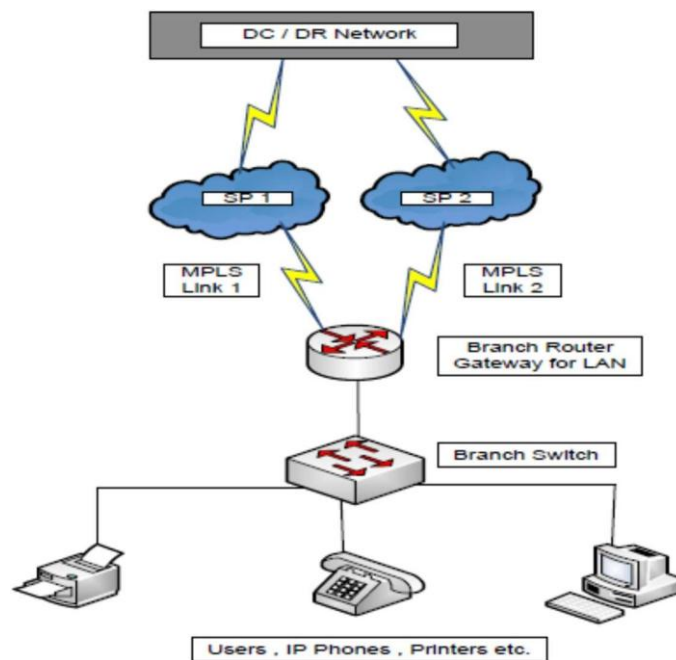
The purpose of the RFP is for setting up a Software Defined Wide Area Network for establishing seamless connectivity among the Data Centre, DR Centre and around 890 Field offices all over Kerala utilizing the existing MPLS links, Internet leased lines and FTTH connectivity available in the above locations. After completion of the above, the existing MPLS WAN shall be fully migrated to SD-WAN in a phased manner. As part of the above, the MPLS routers in the Data Centre, DR Centre and all field offices shall be replaced with SDWAN Hub/Edge devices. The services shall be offered with predefined SLA and warranty support for five years from the date of go-live. Ensuring business continuity and compliance for Information Security shall be the responsibility of the bidder.

In order to achieve this goal, KSEBL is looking for a long-term engagement with a suitable partner (bidder) for the implementation and establishment SD-WAN by replacing the MPLS WAN devices with SD-WAN devices.

EXISTING ARCHITECTURE OF KSEB WAN



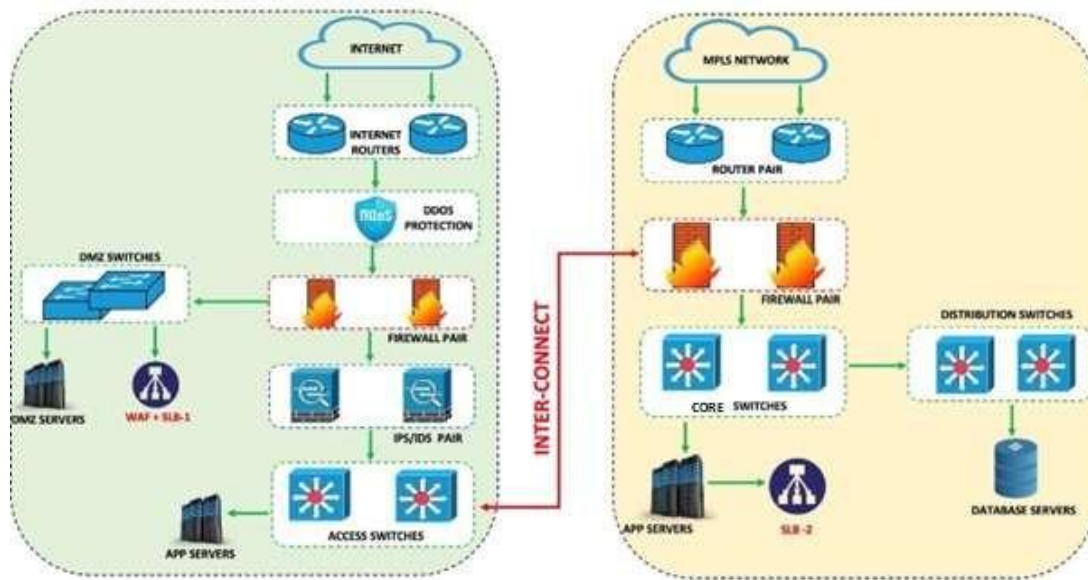
EXISTING NETWORK CONNECTIVITY AT FIELD OFFICES



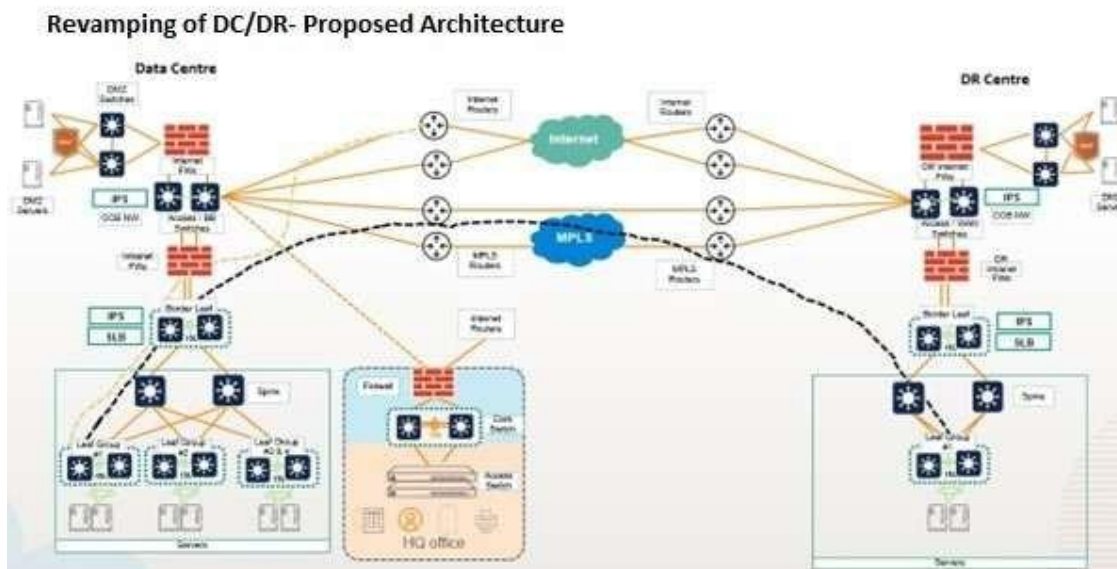
EXISTING NETWORK ARCHITECTURE AT DATA CENTRE / DR CENTRE

The following schematic describes the equipment housed in the Data Centre (DC), including routers, switches, firewalls, servers, SAN (Storage Area Network) storage, backup solutions, and other devices critical to the IT

infrastructure. It provides a clear overview of the hardware components supporting the Data Centre's operations and their respective roles in the system.



The DR Centre located at Infopark, Cherthala is also having a similar architecture of IT infrastructure in terms of Servers, network equipment, security devices, Storage etc. The existing infrastructure at DC as well as DR is nearing obsolescence, especially the Servers, network equipments, Storage etc., which is pointing to the need for a revamping. In view of the above, KSEB has invited RFP for revamping of the existing DC/DR IT infrastructure as per the following network architecture



The tender processes for carrying out the revamping of the DC/DR IT infrastructure as mentioned above are in progress and it is expected that the works will be completed within a period of 8 months from the date of LoA. Hence the successful bidder for SD-WAN shall have to setup the SDWAN network as per the present architecture which shall be

reconfigured to work with the new architecture as and when the revamping works of DC/DR will be completed as per the ongoing RFP.

REVAMPING OF KSEB WAN

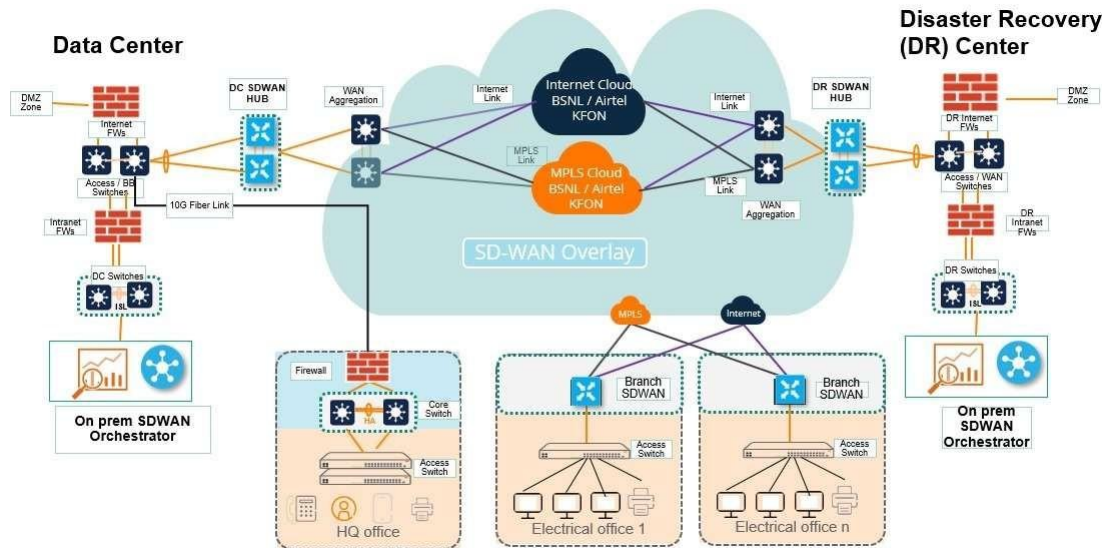
The following Business Function Requirements are to be met by the carrying out the revamping of the existing MPLS Network for setting up SD-WAN

- 1) Enhanced Performance and Capacity: Increasing the network performance to handle growing volumes of data and increasing demand for digital services. This might involve replacement hardware at Data Centre/DR Centre and field offices and revamping of the network infrastructure.
- 2) Improved Reliability and Redundancy: Strengthening the WAN resilience against potential disruptions, such as power outages, natural disasters, hardware failure or cyberattacks. This could involve investing in disaster recovery measures, redundant networking equipment etc.
- 3) Integrated advanced Security: Implementing advanced cybersecurity measures to protect sensitive data from unauthorized access, data breaches, and other security threats. This might include implementing advanced encryption protocols, NGFW features, enhancing access controls and utilising advanced network protocols.
- 4) Scalability: Designing the WAN infrastructure to be easily scalable to accommodate future growth and technological advancements. This could involve adopting modular architectures, scalable hardware at Data Centre/DR Centre and field offices etc.
- 5) Cost Efficiency: Optimizing operational costs by improving energy efficiency, reducing maintenance overhead, and maximizing resource utilization. This might involve adopting green technologies, automating deployment, routine tasks and consolidating infrastructure resources to minimize wasted capacity.
- 6) Supporting Innovation and Digital Transformation: Providing a robust WAN base for innovation and digital transformation initiatives. This could involve facilitating the adoption of emerging technologies such as artificial intelligence, Internet of Things (IoT), and big data analytics.
- 7) Compliance and Regulatory Requirements: Ensuring compliance with relevant data protection laws, cyber security guidelines, industry regulations, and international standards. This might involve implementing data governance frameworks, conducting regular audits, and maintaining comprehensive documentation of data handling practices.
- 8) Disaster Recovery and Business Continuity: Developing and implementing robust disaster recovery and business continuity plans to minimize network downtime and data loss in the event of a catastrophic failure or unforeseen incident. This might involve implementing redundant hardware in active-active mode at Data Centre/DR, failover mechanisms, ensure strategies for replacement of failed equipment at field offices within a limited timeframe to ensure rapid recovery and uninterrupted service delivery.
- 9) Supporting Economic Growth and Competitiveness: Contributing to the country's economic growth and global competitiveness by providing a reliable and high-performance secure WAN infrastructure that attracts investment, fosters innovation, and enables businesses to thrive in the digital economy.
- 10) Centralised Orchestration: Centrally manages deployments, configurations, and operations with visibility, analytics, and reporting

PROPOSED SOLUTION COMPONENTS IN SD-WAN

The successful bidder shall carry out the Supply, installation, Configuration, Testing Commissioning, and warranty support for all components of SDWAN (hardware, software, license, firmware etc.) for establishing connectivity among the Data Centre, DR Centre and field offices in a phased manner as given in the project schedule.

KSEB SDWAN - Proposed Architecture



SDWAN solution shall have the following functional components:

1. SD-WAN Controller / Orchestrator: SD-WAN orchestrator is the tool that centralizes the management of Software Defined Wide Area Networks (SD-WANs). It automates the configuration and operation of SD- WANs, which can help improve network performance and security. This central management system shall provide a single interface with the capability for automation and coordination of network functions, and policy enforcement across the entire network. The Orchestrator Device installed at Data Centre/DR Centre shall include all components like controller, orchestrator, manager etc. which may be one device or multiple devices hosting various components/tools/apps having following capabilities:
 - Authentication of field office devices
 - Policy pushing and management
 - Pushing configuration to branch SDWAN device and headend devices.
 - Templates creation, storage and management.
 - Route manipulation and configuration management.
 - Defining the policies and application aware routing.
 - Monitoring headend and branch/edge devices

The SDWAN Orchestrator installed at the Data Centre and DR Centre (one unit each) shall configured in active-

active mode in order ensure High Availability.

2. Headend/Hub device at DC/DR: The Headend/Hub/Gateway device is proposed to install at Data Centre/DR Centre for establishing IPSEC tunnel with branch device to forward data traffic. The devices shall at DR/DR shall be configured in High Availability.
3. SDWAN Edge Router / Branch end device: The SDWAN Edge router is responsible for routing traffic between the local network at field offices and the WAN. The edge devices shall be capable of making decisions about how best to direct data based on policies set through the Central management.
4. Monitoring, dashboard, Reporting and Analytics Service: A separate device(s) or services shall be functioning at the Data Centre for this purpose. This ability to intelligently manage traffic ensures that critical applications receive the bandwidth and priority they need, enhancing overall network performance and user experience.

The tentative hardware requirements for implementing the SD-WAN solution is furnished as follows

Sl.No	Hardware/Software	DC	DR	Field Offices
1	SDWAN Controller/Orchestrator/Manager	1	1	0
2	SDWAN Headend/Hub/Gateway	2	2	0
3	SDWAN Edge/Branch Router	0	0	890
4	Monitoring, Dashboard, Reporting & Analytics service	1	0	0
5	WAN Aggregation Switches – 24 x 1Gbps RJ45 Ports and 4x10Gbps uplink ports, stackable	2	2	0
6	Layer-2 Switch for field offices- 24 x 1Gbps RJ45 Ports, 4x1 Gbps uplink Ports	0	0	890

MPLS/Internet Connectivity available at various office locations

S/N	Location	Connectivity		
		MPLS	ILL	FTTH
1	Data Centre	BSNL-100Mbps Airtel-100Mbps KFON-500Mbps	BSNL-100Mbps Airtel-50Mbps KFON-200Mbps	Airtel-300Mbps
2	DR Centre	BSNL-20Mbps Airtel-20Mbps	BSNL-15Mbps Airtel-15Mbps	-
3	Field offices	BSNL-2Mbps Airtel-2Mbps KFON-100Mbps	-	BSNL-100Mbps KFON-100Mbps

SCOPE OF WORK

SURVEY AND ASSESSMENT

Conduct a comprehensive survey of the existing MPLS WAN and DC/DR components

- Hardware Evaluation:
 - Review of network components, Servers, storage systems and power systems to ensure optimal network performance
- Software & Applications:

- Assessment of operating systems, applications etc. for efficiency, compatibility, and security.
- Network Architecture:
 - Analysis of network topology, bandwidth usage, latency, and redundancy for optimized connectivity and fault tolerance.
- Security Infrastructure:
 - Comprehensive review of firewalls, access controls, encryption mechanisms, and vulnerability management to ensure robust security measures are in place.
- Disaster Recovery & Business Continuity:
 - Analyse current disaster recovery plans, and failover systems to ensure resilience and minimal downtime in case of disruptions or disaster
- Assess the suitability and availability of proposed SDWAN infrastructure for integration with existing DC/DR as well as revamped DC/DR IT Infrastructure
- Assess short-listed potential areas for service rollout.

SD WAN DESIGN AND PLANNING

Develop a detailed design, integration and migration plan

- Infrastructure Architecture:
 - Design the overall architecture including network systems, security systems etc. to ensure optimal performance, scalability, and redundancy including rack design
- Network Design:
 - Develop a robust SWAN topology that supports high bandwidth, low latency, and redundancy, with clear paths for internal and external connectivity, load balancing, and failover mechanisms.
 - Optimal Integration with existing/revamped DC/DR, MPLS WAN, HQ network, field offices etc.
 - Co-existence with MPLS WAN- During the period of implementation till completion of migration of all field offices, the proposed SDWAN shall co-exist with the existing MPLS WAN in order to ensure uninterrupted network uptime.
- Integration & migration:
 - Develop and submit a comprehensive plan to setup the SDWAN network in parallel with the MPLS WAN integrate DC/DR network infrastructure to the SDWAN so as to enable parallel operation for a specific period and then facilitate for the migration of field offices to new infrastructure in a phased manner without downtime for the critical services.
- Security Framework:
 - Integrate with existing security solutions like DDoS, IDS/IPS, NGFW, WAF etc. and overall Organisation security policies
 - Disaster Recovery & Business Continuity
 - Design a comprehensive disaster recovery plan for network availability, failover systems and high availability to minimize downtime and ensure quick recovery in case of disruptions.
- Compliance & Governance:
 - Ensure the design meets regulatory and industry standards (e.g., ISO, GDPR) for data security, privacy, and operational procedures.
- Submit the following documentation:
 - SDWAN Solution Design Document including HLD/LLD
 - Implementation /Migration Plan

The above mentioned documents/plan will be finalized after joint discussion with KSEB officials and OEM. The implementation/migration shall be started only after approval of the above documents from the KSEB. Bidder has to start OEM engagement immediately after receiving of LoA and has to submit the plan within 2 weeks from the date of LoA.

SDWAN INSTALLATION, CONFIGURATION AND INTEGRATION

- Supply, Install, Implement, and Test DC and DR WAN infrastructure
 - Hardware Installation:
 - Install SDWAN Headend Systems, Orchestrator/Controller and other physical components based on the approved infrastructure design.
 - Network Configuration:
 - Set up and configure the network topology and parallel integration with Bandwidth providers, switching architecture, routers, firewalls, and load balancers, ensuring connectivity, redundancy, and optimized traffic management.
 - Disaster Recovery Setup:
 - Implement disaster recovery mechanisms, and high-availability configurations to ensure data integrity and minimize downtime in case of system failure.
- Delivery and deployment of hardware at DC/DR: Bidder shall engage on-site OEM Professional Services to deploy and configure all Data Centre/DR components across as specified in the technical specifications. Deployment of DC hardware, OS installation, configuration, integration with different specified tools should be completed within 2 weeks after the delivery of hardware equipment.
- Bidder has to carry out the following task in Data center during deployment
 - Device unpacking & mounting in designated racks (rack space and device power will be provided by the KSEB)
 - Power On Self Test (POST) of all Data Centre devices
 - All cabling laydown required in the Data Centre for SDWAN solution including connector, Cables, Fiber patch cord, check nuts, compatible SFP (SFP for SDWAN devices) etc. shall be provide by the bidder.
 - All required data cabling for installation of the DC/DR components of SDWAN shall be under the scope of the bidder.
- Phase-I Implementation – First 300 field offices: On site OEM Professional Services shall be utilized for completing the migration of Data Centre, DR Centre and first 300 field offices (of different categories as provided by the KSEB) within 8 weeks from the date of LoA and shall prepare all necessary templates as per these different offices categories.
- The responsibilities of onsite OEM/bidder professional services team, engaged for the installation and commissioning of the solution, shall include the following:
 - Installation and configuration of all the DC/DR components
 - Migration of first 300 field offices to SDWAN
 - Resolution of all the issues faced during commissioning of solution or migration of first 300 field offices.
 - Submission of all the documents and SOPs as detailed in below points.
 - Training session for migration of remaining field offices.
 - Security clearance of the solution, implementation of SCD (secure configuration documents) etc. as per the observations given by KSEB's Information Security Team
- Delivery and installation of field office hardware:
 - Bidder shall be responsible for installation and migration of 300 field offices spread across various Circles all over Kerala (Separate list will be issued to the successful bidder).
 - Bidder shall migrate all 300 field offices within 2 weeks after deployment of Data Center devices

The bidder's responsibilities during the installation activity shall include but not be limited to –

- Unmounting of existing device
- Unboxing of the delivered device
- Mounting of the delivered device onto the rack
- Required cabling activities, such as plug out from existing device, plug in to the new device, any new cabling requirement etc.
- Any other activities required to install the delivered device.
- Make the required configuration changes.
- Provide remote to the central team.
- All the issues during migration of 300 field offices shall be resolved by OEM onsite PS team. All such issues and resolution shall also be recorded by OEM PS team and needs to be shared with the KSEB. A field office migration shall be considered as successful only when field office is operating without any issue for a period of 15 days from the date of migration.
- The Downtime for the field office migration will be provided after office hours as per the discretion of KSEB.
- Post successful migration of the first 300 field offices, OEM shall submit following updated documents within 1 week to the KSEB as per the required format given by the KSEB:
 - Solution Document
 - High Level Design
 - Low Level Design
- The following SOP documents for Edge devices, Headend and Central Orchestrator/manager/ reporting tool should also be provided.
 - Integration of New field office
 - Integration of new Headend device
 - Integration of new Central Orchestrator/manager/reporting tool
 - Troubleshooting guide for day to day operation
 - Template creation for different feature sets
 - Commissioning of SDWAN solution at DR Centre
 - Generation of all required reports
 - Patch management of all SDWAN solution components
 - Backup management of all SDWAN solution components
 - Restoration from backup
 - OS upgradation for all SDWAN solution components
 - Business Continuity Plan
 - DC/DR/Active/Standby switchover and rollback
- The OEM/Bidder shall also carry out a detailed technology transfer session regarding the above.
- Phase-II – Migration of remaining field offices: Installation and migration of remaining field offices (around 590 locations) shall be carried out by KSEB IT team at respective locations within the subsequent period of 4 months after Phase-I deployment. Required support at DC level including template creation, configuration etc. shall be provided by the OEM/bidder. The configuration in Data Centre devices for the migration of all the remaining field offices (around 590) shall be done under the supervision of OEM within one week, after completion of the deployment of first 300 field offices by OEM/bidder PS team. All activities related to the migration of Phase-II offices shall be completed within 8 weeks from the date of LoA. The Downtime for the field office migration will be provided after

office hours as per the discretion of KSEB.

- All issues during and after migration shall be resolved by the bidder/OEM within the time limit. A field office migration shall be considered as successful only when field office is operating without any issue for a period of 15 days from the date of migration

COMMISSIONING & ACCEPTANCE

1. Date of Commissioning of Phase - I shall be considered on the day when the below tasks are completed-
 - Installation and deployment of all Data Centre components.
 - Integration with all existing and required tools.
 - Fully functional MIS, Reporting and Dashboards.
 - Migration of 300 field offices
 - Submission of all concerned technical documents
2. KSEB will provide commissioning and acceptance report for minimum 50 field offices or in multiples of 50. Bidder shall submit signed installation report from the field offices through the System Administrator/System Supervisor concerned for every installation.
3. Acceptance: Acceptance of the total Solution will be provided by the KSEB to the bidder after migration of all the 890 allocated field offices and accomplishment of all stated below task.
 - The bidder has to submit certificate from OEM to the KSEB after thorough examination stating that all Data Center components deployment, templates created, reporting and configuration of Fifty (50) Sample Field offices(given by the KSEB) migrated by bidder are as per the OEM recommended best practices, after migration of all allocated 890 field offices.
 - All the points specified in the technical specifications of this RFP are matched.
 - The solution shall be thoroughly tested against the following (but not limited to) set of test cases for acceptance.
 - Active-Passive failover test for all the DC/DR components.
 - Power failure test.
 - Link failure test i.e., to avoid the single point of failure, the cables may be jacked out/in off the device, there should be no production impact. However, the respective alarm must be generated for the same.
 - Synchronization test between the HA component and geographical redundant devices.
 - Network Performance: Conduct network tests across all network segments (LAN, WAN, VPN) to verify optimal data flow and identify potential bottlenecks
 - Monitoring Tools: Validate that monitoring tools are correctly configured to track key performance metrics, resource usage, and security incidents.
 - Alerting Mechanisms: Test alerting systems to ensure timely notifications in case of performance issues, security breaches, or hardware failures.
4. Onsite Resource: The bidder shall provide one dedicated onsite L2/L3 resource at the Data Centre for a period of one year from the date of commissioning and go-live for providing post implementation support on all working days from 9am to 6pm. The onsite resource shall have professional certification in SD-WAN with at least 3 years of experience in setting up and maintaining Wide Area Networks. Prior approval of KSEB shall be sought for appointment of the above personnel at the Data Centre. The responsibilities of the Onsite Resource must include, but not be limited to, the following –
 - Attend, Coordinate and Rectify all support activities/cases at Data Centre for addressing issues related to the

SDWAN implementation and maintenance at DC/DR and field offices

- Raising a TAC case on behalf of KSEB.
- Onboard the relevant teams (of OEM or bidder) for support as per requirement.
- Getting the relevant updates / upgrades for the solution components and the required support for installation / application of the same.
- Resolution of any VA points by way of bug fixes, security updates etc. this shall include development of any new patches / bug fixes as required.
- OS upgradation suggestions and recommendations according to the KSEB's environment.
- Periodic assessment and suggestion regarding upgradation, mitigation of repetitive issues, possible threats, effective compliance check, better visibility and controls etc.
- Periodic assessment and suggestion for architecture flaws during the support period.

INTEGRATION & MIGRATION

- The revamped SDWAN shall be integrated properly with the existing network & security infrastructure (DDoS, IDS/IPS, NGFW, WAF etc.) in the Data Centre/DR Centre
- Implement seamless communication with existing/revamped DC Infrastructure so as to facilitate secure access to the software Applications hosted in the DC from field offices through the SDWAN
- Configure and implement required policies for providing secure & restricted Internet access with Content/URL filtering for field office users through the FTTH connectivity available at field offices
- Enable parallel operation of MPLS WAN and SDWAN till completing the migration of all field offices

POST IMPLEMENTATION SUPPORT, MAINTENANCE AND UPGRADES

- 1) Bidders shall support the SDWAN Solution and its associated items/components including OS/firmware during the period of Warranty/Extended Warranty as per the provisions of SLA specified in this RFP.
- 2) During the warranty period, Service Provider will have to undertake comprehensive support of the entire Product (hardware/components/ operating software/firmware) supplied by them at no additional cost to KSEB. During the support period (warranty), bidder shall maintain the Product (hardware/ software, etc.) to comply with parameters defined for acceptance criteria and bidder shall be responsible for all costs relating to labour, spares, maintenance (preventive and corrective), compliance of security requirements and transport charges from and to the designated site(s) in connection with the repair/ replacement of the Product (hardware/ equipment/ components/ software or any component/ part thereunder), which, under normal and proper use and maintenance thereof, proves defective in design, material or workmanship or fails to conform to the specifications, as specified.
- 3) During the support period, bidder shall ensure that services of professionally qualified personnel are available for providing comprehensive on-site maintenance of the Product and its components as per KSEB's requirements. Comprehensive maintenance shall include, among other things, day to day maintenance of the system as per OEM guidelines, reloading of firmware/software, compliance to security requirements, etc. when required or in the event of system crash/malfunctioning, arranging and configuring facility as per the RFP, fine tuning, system monitoring, log maintenance, etc. In case of failure of Product (hardware, system software or any of its components), bidder shall ensure that the Product is made operational to the full satisfaction of KSEB within the given timelines.
- 4) On site comprehensive warranty for the Product would include free replacement of spares, parts, kits, resolution of problem, if any, in the total solution.
- 5) Support would be on-site and comprehensive in nature and must have back-to-back support from the OEM. Bidder

warrants Products against defect arising out of faulty design, materials, etc. during the specified support period. Bidder will provide support for operating systems and other pre-installed software components/system software during the specified period of the hardware on which these software and operating system will be installed. Service Provider shall repair or replace worn out or defective parts including all active/passive components of the Equipment at his own cost including the cost of transport.

- 6) In the event of system break down or failures at any stage, the following measures shall be ensured by the bidder:
 - Diagnostics for identification of systems failures
 - Protection of data/ Configuration
 - Recovery/ restart facility
 - Backup of system software/ Configuration
- 7) Prompt support shall be made available as desired in this RFP during the support period at the locations as and when required.
- 8) The support staff should be well trained to effectively handle queries raised by the employee(s) or authorized user(s) of KSEB.
- 9) Updated escalation matrix shall be made available to KSEB once in each quarter and each time the matrix gets changed.

COMPLIANCE AND REGULATORY REQUIREMENTS

- Ensure the design and implementation meets regulatory and industry standards (e.g., ISO, ISMS, GDPR etc.) for information/cyber security, privacy, and operational procedures.

DOCUMENTATION AND REPORTING

- Maintain detailed documentation of the WAN infrastructure, configurations, and system specifications.
- Prepare regular progress reports, including project milestones, implementation status, and key performance indicators.
- Provide comprehensive documentation and handover materials to facilitate future operations and maintenance.
- In addition, provide documentation standards for SDWAN Architecture diagrams, configurations, and operating procedures; reporting requirements, including progress reports, milestone updates, and key performance indicators; and system documentation.

PROJECT MANAGEMENT

- Assign a dedicated Project Manager onsite responsible for overseeing and coordinating all project activities.
- Develop a detailed project management schedule with clear milestones, timelines, and deliverables. A suitable project management tool shall be used to monitor the progress of implementation
- The project management schedule shall be submitted to KSEB Nodal Officer for approval.
- Conduct regular project meetings and maintain open communication channels with all stakeholders to ensure that timelines are met.

SPARES & RMA FOR DATA CENTRE/DR CENTRE

RMA of Controller and Headend Systems (Brand New) should arrive within 6 hour at the Data Centre/DR Centre irrespective of the day and time including holidays 24x7x365.

SPARES & RMA FOR FIELD OFFICES

Faulty devices at field offices shall be replaced immediately by the bidder from the respective location within the timelines as per the SLA Agreement. The faulty devices shall be taken back by the bidder from the field office.

The responsibility of collecting the faulty device from the field office and delivering and installing the new device shall lie entirely with the Bidder including packing and transportation, for which no extra cost shall be paid by the KSEB.

Bidder shall provide 30 spare Edge Routers for IT Sub Units of KSEB. At present, there are 10 IT Sub Units of the KSEB, where the spare devices will be kept. The address details of all such locations will be provided to the successful Bidder at the time of placing the LoA. The spare shall be either used for the newly formed field offices or it can be used as emergency spare.

TRAINING & CERTIFICATION

- The bidder shall ensure comprehensive certification training to be conducted by the OEM for 10 KSEB officials within a period of 3 months from the date of commissioning of the project.
- The necessary study material for training shall be arranged by the bidder. The bidder shall provide all necessary means and expenses for SDWAN training (up to Expert level) to the KSEB staff without any extra cost to KSEB.
- The bidder shall provide a comprehensive training plan from Basic level up to Expert level (Highest). This should include all relevant study materials, lab access, etc. to carry out the training for the designated KSEB officials.
- The bidder shall ensure that training shall be offline (in-person) and shall include hands-on training session and labs along with theoretical sessions. A suitable venue for training shall be arranged by the Bidder after consultation with KSEB.
- The bidder shall ensure that training session should be conducted by OEM certified professional trainer / professional services resource.
- Cost of training material, trainer fees, accommodation and travel of trainer, training site and certification cost etc. shall be borne by the Bidder.

POC AS PART OF TECHNICAL EVALUATION

- All the bidders are required to conduct PoC for 5 field offices for one week during the Technical Evaluation phase as per discretion of the KSEB for demonstrating all technical and functional compliance as specified in the RFP without any additional cost to the KSEB.
 - The PoC conducted will be deemed as a failure when the solution proposed by the bidder is not in accordance with any of these major SDWAN functionalities required as per this RFP clauses and mentioned below. The detailed technical requirements are in the Technical Specifications section of this RFP.
- 1) Field offices can utilize both primary and secondary WAN links simultaneously.
 - 2) Application-wise traffic routing can be configured.
 - 3) Load-balancing mechanism (Packet, Session based)
 - 4) Quality of Service (QoS) can be implemented at the Data Center device and field offices without any dependency on the service provider.
 - 5) Vulnerability Assessment (VAs) and Secured Configuration Documents (SCDs) can be implemented from the central site.
 - 6) Latency, packet loss, and jitter can be monitored and auto switching to and from one to another link based on SLA violation.
 - 7) Asymmetric (origination and return path are not same) traffic flow can be avoided.

- 8) A centralized dashboard should be available for monitoring, command & control and management of alerts.
 - 9) Integration with different reporting, monitoring, ticketing etc. tools
 - 10) Any other functionality insisted by KSEB as per RFP during PoC
- In the event of the failure of the Proof of Concept and demonstration, the bid submitted by such bidder shall not be considered for any further bid evaluation and will be rejected

INDICATIVE BILL OF MATERIALS

INDICATIVE BILL OF MATERIAL AT DC, DR AND FIELD OFFICES

The following is an indicative bill of materials required to carry out the revamping works as per the RFP specifications at DC, DR and Field Offices from Day 1

Sl. No	Item	Qty
Data Centre		
1	SDWAN Controller/Orchestrator/Manager	1
2	SDWAN Headend/Hub/Gateway Device	2
3	Monitoring, Dashboard, Reporting & Analytics service	1
4	WAN Aggregation Switch - 24 x 1Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2
5	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the Data Centre	1
6	Man power charges (L2/L3 resource) for one year at Data Centre	1
DR Centre		
7	SDWAN Controller/Orchestrator/Manager	1
8	SDWAN Headend/Hub/Gateway Device	2
9	WAN Aggregation Switches - 24 x 1 Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2
10	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the DR Centre	1
Field Offices		
11	SDWAN Edge/Branch Router for field offices	890
12	SDWAN Edge/Branch Router - Spare	50
13	Layer-2 Switch for field offices – 24 x 1Gbps RJ45 Ports, 4 x 1Gbps SFP ports	890

14	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the field office	300
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Note:

1. The BoQ items mentioned above are indicative only. The bidder is liable to provide additional items/services/accessories required, if any, for providing all required features/functionalities/services mentioned in the Scope of Work
2. Cyber Security Compliance: All products (hardware/software) quoted by the bidder shall comply with the statutory guidelines of Government of India related to Cyber Security, industry standards etc.

LIST OF BUY-BACK COMPONENTS FROM FIELD OFFICES

The following table shows the list of network devices to be taken back by the bidder on buy-back basis from field offices, as part of the supply of SDWAN components:

Sl.No	Specifications	Qty	Present status
Field offices			
1	MPLS Router - HP A-MSR 3020 Router	846	Working in good condition
2	MPLS Router – HPE-MSR 1002 4AC	31	Working in good condition
2	Layer II Switch - HP 3600-24 – 24 x 1Gbps RJ45 Ports	400	Working in good condition

INDICATIVE BILL OF MATERIAL DURING NEXT FIVE YEARS (UPGRADE BASED ON DEMAND)

The following is an indicative bill of materials that will be required to scale up the SDWAN solution during the first five years of the Contract Period (from the date of go-live) for which PO will be issued based on the Utility's demand. The below list will also be considered for price discovery and price bid evaluation purposes.

Sl.No	Specifications	Qty
Field offices		
1	SDWAN Edge/Branch Router with required license	400
2	Layer-2 Switch for field offices – 24 x 1Gbps Copper Ports, 4 x 1Gbps SFP ports	50
SL No.	Activity	Timeline

PROJECT SCHEDULE

SL No.	Activity	Timeline
1	Date of LoA	T0
2	Submission of reports on site survey, detailed design with HLD & LLD, man power deployment plan, migration plan, project schedule etc.	T0 + 1 Weeks
3	Supply of SD-WAN Controllers, SD-WAN gateways, and other necessary components, including software/licenses, required for the successful installation and system integration of the SD-WAN solution at the Data Centre and DR Centre of KSEBL	T0 + 3 weeks
4	Installation, configuration, system integration, testing, and commissioning of SD-WAN controllers, gateways, and other components required for setting up SD-WAN at the Data Centre and DR Centre of KSEBL. Preparation of necessary configuration templates for migrating Phase-I field offices (300 offices) to SDWAN	T0 + 4 weeks
5	Supply of 300 SD-WAN Edge devices and LAN Switches at field offices including software/licenses and other components necessary for migrating the Phase-I offices (300 field offices) to SD-WAN.	T0 + 6 weeks
6	Installation, configuration, integration, testing, and commissioning of Edge Devices along with LAN switches for the Phase-I offices specified in Annexure I and migration of the above-mentioned field offices to SD-WAN	
7	Providing necessary training to KSEBL IT team for carrying out the migration of Phase-II offices- 590 field offices (Edge device and Switch configuration, template creation etc.)	
8	Supply of Edge devices and LAN Switches for Phase-II offices (590 field offices as per Annexure-II) including software/licenses and accessories necessary for migrating the offices to SD-WAN	T0 + 10 weeks
9	Providing handholding support to the KSEBL IT team for carrying out the installation, configuration, integration, testing, and commissioning of Edge Devices and LAN switches for the Phase-II offices. Installation activities at Phase-II offices will be taken care by KSEB IT team.	T0 + 16 weeks
10	Performance testing and go-live of the total SD-WAN solution	T0 + 20 weeks = T
11	Onsite warranty and support as per SLA	T + 5 years

CONTRACT PERIOD

The contract period shall be initially for a period of Sixty-five months (5 months project completion and 60 months onsite warranty period) from the date of commencement of installation, which includes five months implementation period and sixty months for onsite warranty period. The warranty period may further be extendable for further two years as per the rate quoted in the bid.

IMPLEMENTATION PERIOD

The implementation period of project for shall as defined in this document where in all the hardware, software, resources etc. should be installed/deployed by the bidder. The implementation period for this project shall be maximum five (5) months from the date of LOA.

3.1 Warranty & AMC

The warranty would be valid for the performance of products, service and application as applicable in the **CIAL RFP on Back to Back basis for 5 years On-site OEM comprehensive warranty.**

On-site comprehensive warranty: The warranty shall be on-site and comprehensive in nature with back-to-back support from the OEM. The bidder shall warrant all the hardware and software against defects arising out of faulty design, materials and media workmanship etc. for a period of 5 years from date of Date of Installation. Warranty period starts from the Date of commissioning and SLA will be applicable as per the conditions given in Clause.7 as per KSEBL RFP.

The bidder shall also provide support for Operating Systems and other preinstalled software during the warranty period of the hardware on which this software & operating system will be installed.

The bidder shall repair or replace the worn out or defective parts including any auxiliary component/equipment (active or passive devices) at their own cost including the cost of transport.

3.2 Warrant Support

This shall be applicable as per RFP/Tender terms and conditions of End customer, unless otherwise specified.

Bidder shall be liable to provide Extended Warranty for a period of two years on expiry of the 5 year warranty period, if KSEB desires so at that point of time. The Extended Warranty would be on-site and comprehensive in nature with back-to-back support from the OEM. All support terms and conditions of Warranty shall be applicable for the Extended Warranty also.

Note:

The Warranty and Extended Warranty should have back to back OEM Premium (Highest level) active support and supporting documents for the same should be provided for releasing of respective payments. Further, all the obligations of the warranties should be covered during the contract period including replacement of the devices & its parts.

3.3 Quality of Service, Service Level Agreement and penalty

PURPOSE OF THIS AGREEMENT

The purpose of this SLA is to clearly define the levels of service to be provided by bidder to Purchaser for the duration of this contract or until this SLA has been amended. The benefits of this SLA are to:

- Trigger a process that applies Purchaser and Bidder management attention to some aspect of performance only when that aspect drops below an agreed upon threshold, or target.
- Makes explicit the performance related expectations on performance required by the Purchaser
- Assist the Purchaser to control levels and performance of services provided by Bidder

- d) This SLA is between Bidder and Purchaser.

DESCRIPTION OF SERVICES PROVIDED

Bidder shall provide services as defined in Section VI - Scope of Work, in accordance with the definitions and conditions mentioned in the 'Terms and Conditions' of the RFP.

DURATION OF SLA

This Service level agreement would be valid for entire period of contract.

SERVICE LEVEL AGREEMENTS & TARGETS

This section is agreed to by Purchaser and Bidder as the key bidder performance indicator for this engagement. The following section reflects the measurements to be used to track and report systems performance on a regular basis. The targets shown in the following tables are for the period of contact or its revision whichever is later.

Table1: Service Level Chart

S/N	Service	Parameter	Service Level	Validation	Penalty
1	Project Management	Submission of Monthly Project Status reports & Conducting Status meetings	100%	- Minutes of Meetings - Approval of Status reports by Engineer-in- Charge	0.001% of total project cost for every default
2	Helpdesk	Resolution of tickets logged as per the Severity definition chart in a month	99%	Reports generated from Ticket logging system	95%-99% calls resolved in specified time: 0.02% penalty on the total contract amount 90%-95% calls resolved in specified time: 0.03% penalty on the total contract amount
3	Install, Moves, Add, Changes (IMAC) Services	Should be part of Monthly project status report	95%	Report	0.001% of total contract amount
4	Asset/ Inventory Management	Provide monthly MIS Asset Inventory	95%	Report	0.001% of total project cost
		Conduct Annual Physical Asset verification	100%	Approval of Physical Asset Verification report	0.001% of total project cost
5	Supplier Management Services	Evaluation of Supplier Performance on quarterly basis	100%	Approval of Supplier Performance evaluation report	0.001% of total contract amount

		Tracking of Supplier SLA & tickets logged with suppliers	95%	Status of tickets logged with Suppliers	0.001% of total contract amount
6	Security, Antispam, Antimalware Management	Rollout of latest definition file on all devices in the SDWAN on being made available on OEM's website (after carrying out required testing)	98%	Reports generated from Dashboard/ Monitoring tool	0.01% of total contract amount
7	Network Monitoring & Management	Resolution of tickets logged related to Networks	99%	Reports generated from Ticket logging system	Covered under 2
		Availability of SDWAN backend infrastructure with Hub and Orchestrator at Data Centre/DR Centre - Minimum of 99.9% up time measured on a monthly basis	99.9%	Report	0.1% of total contract amount for less than 99.9% 0.2% of total contract amount for less than 99.8.0% 0.3% of total contract amount for less than 99.5%
		Regional Offices, Circles, Divisions and Sections - Network Availability Minimum of 99% uptime measured on a monthly basis	99%	Report	0.001% of total contract amount for less than 99% 0.002% of total contract amount for less than 98% 0.003% of total contract amount for less than 95%
8	SDWAN Administration / Management	Rollout of updates and patches (OS, infra, security, device level) on Headend, Orchestrator, Edge etc. after patch being approved on test environment	99.9%	Patch update report	0.01% of total contract amount for less than 99.9% 0.02% of total contract amount for less than 98% 0.03% of total contract amount for less than 95%
9	Management of Monitoring, Dashboard, Reporting and Analytics Services	Weekly MIS of SDWAN backend infrastructure components health checkup (CPU, disk space, Memory, I/O utilization etc.)	100%	Reports generated from Dashboard and monitoring services	0.001% of total contract amount for every default
10	Incident management & Ticketing Management	Resolution of ticket logged in Incident Management tool	99%	Reports generated from Ticket logging system	0.003% of total contract amount for less than 99%

11	Problem Management	Supplier shall analyze all the incidents and provide a root cause report every month if there are more than 10 incidents of the same type. Supplier shall take the needed corrective action to prevent further issues due to the same cause.	100% timely submission covering all incidents logged in that month	Root cause report Incident report stating problems faced by the users Document detailing corrective action	0.003% penalty on total contract amount, if the Supplier does not submit problem report for that month. 0.003% penalty on total contract amount, if the Supplier does not perform the corrective action for more than One calendar month.
12	LAN Management- field offices	LAN Availability at field offices – measured on monthly basis	98%	Reports generated from Ticket logging system	0.001% of total contract amount for less than 98%

Note:

1. The bidder is liable to provide post implementation support (during Warranty/Extended Warranty period) services as mentioned in the detailed descriptions in the Scope of Work in accordance with the concerned SLA Clauses listed above.
2. In case of Breach of SLA Clauses, penalty will be deducted from the Performance Bank Guarantee submitted by the bidder.
3. The total deduction of penalty per month shall not exceed 0.2% of the total contract amount
4. The Agreement Authority shall have the right to make suitable amendments in the above SLA conditions based on the requirements from time to time, on mutually agreed terms and conditions

Uptime Calculation for the month:

$$\{[(\text{Actual Uptime} + \text{Scheduled Downtime}) / \text{Total No. of Hours in a Month}] \times 100\}$$

"Actual Uptime" means, of the Total Hours, the aggregate number of hours in any month during which each equipment, is actually available for use.

"Scheduled Downtime" means the aggregate number of hours in any month during which each equipment, is down during total Hours, due to preventive maintenance, scheduled maintenance, infrastructure problems or any other situation which is not attributable to Supplier's (or Service provider's) failure to exercise due care in performing Supplier's responsibilities.

The Purchaser would provide a maximum of 04 hours of planned downtime for the preventive maintenance (as part of scheduled downtime) per month per equipment/service, if required.

The downtime for scheduled maintenance (patch application, upgrades – OS, Database, etc.) would need to be mutually agreed between Utility and the Bidder. To reduce this time, various maintenance activities can be clubbed together with proper planning.

"Total Hours" means the total hours over the measurement period i.e. one month (24 * number of days in the month).

Downtime Calculation:

The recording of downtime shall commence at the time of registering the call with Supplier or Service Provider for any downtime situation for the equipment.

Downtime shall end when the problem is rectified, and the application/ service is available to the user.

Down time will not be considered for following:

- 1) Pre-scheduled preventive maintenance and health checks (Scheduled Downtime).
- 2) Failover time (30 minutes) in case of cluster environment. Beyond which the service would not be available and appropriate penalty shall be imposed on the Supplier.
- 3) Bug in any application which causes the non-availability of the service.

If the utility elects to continue the operation of the machine / equipment, when a part of the machine is giving problem and leading to downtime, the commencement of downtime shall be deferred until the utility releases the machine / equipment to the Bidder for remedial action.

FMS DURATIONS/ SERVICE LEVELS/ CRITICALITY

Typical Facility Management Services Availability & duration of their requirements are tabulated below for reference.

SERVICE AVAILABILITY & CRITICALITY CHART

SERVICE	DURATION	CRITICALITY
SERVICE DESK	24 HOURS	URGENT – 12X7 REST - HIGH
ASSET MANAGEMENT SERVICES	8X6	MEDIUM
VENDOR MANAGEMENT SERVICES	8X6	MEDIUM
SDWAN ADMINISTRATION	24X7	CRITICAL
ANTIMALWARE & SECURITY ADMINISTRATION	12x7	URGENT
NETWORK MANAGEMENT - WAN	24X7	CRITICAL
NETWORK MANAGEMENT -LAN	12X7	URGENT

Table 2: Severity Definition Chart

S/N	Support Category	Criteria	Resolution	Maximum Response Time
1	Critical	The system is unable to be used for normal business activities. There is certainty of financial loss to PURCHASER.	90 Minutes	15 Minutes
2	Urgent	There is a problem with part of the system, which impacts on Purchaser's decision making. No viable workaround is available. There is a likelihood of financial loss.	4 Hours	1 Hour
3	High	The efficiency of users is being impacted, but has a viable workaround.	6 hours	2 Hours

4	Medium	A low impact problem that affects the efficiency of users but has a simple workaround.	12 Hours	8 Hours
5	Low	A fault, which has no particular impact on processing of normal business activities.	One Week	8 Hours

BREACH OF SLA

In case the Supplier does not meet the service levels mentioned in document, for three (3) continuous time-periods as specified in the relevant clause, the Purchaser will treat it as a case of breach of Service Level Agreement. The following steps will be taken in such a case:-

- 1) Purchaser issues a show cause notice to the Supplier.
- 2) Supplier should reply to the notice within three working days.
- 3) If the Purchaser authorities are not satisfied with the reply, the Purchaser will initiate termination process as per the 'Terms & Conditions' of the RFP.

EXCLUSIONS

The Supplier will be exempted from any delays or slippages on SLA parameters arising out of following reasons:-

- 1 Delay in execution due to delay (in approval, review etc) from Purchaser's side. Any such delays will be notified in written to the IT Team.
- 2 The network links will be provided by a third party and the Supplier will monitor and report any problems on behalf of third party. If Supplier notifies and Purchaser approves that the delay or fault was due to the third party link services then such loss will not be considered for tracking Supplier's SLA parameters (Also reduced from total service time).

MONITORING AND AUDITING

IT Team of Purchaser will review the performance of Supplier against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the Supplier as soon as possible. Purchaser reserves the right to appoint a third-party auditor to validate the SLA.

REPORTING PROCEDURE

The Supplier's representative will prepare and distribute SLA performance reports in an agreed upon format by the 10th working day of subsequent month of the reporting period. The reports will include "actual versus target" SLA performance, a variance analysis and discussion of appropriate issues or significant events. Performance reports will be distributed to the Purchaser's IT Team.

ISSUE MANAGEMENT PROCEDURE

General

This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached between Purchaser and Supplier.

It is expected that this pre-defined process will only be used on an exception basis if issues are not resolved at lower management levels.

ISSUE MANAGEMENT PROCESS

- Either Purchaser or Supplier may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.
- Purchaser and the Supplier's representative will determine which committee or executive level should logically be involved in resolution.
- A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.
- Management of Purchaser and Supplier will develop a temporary, if needed, and the permanent solution for the problem at hand. The Supplier will then communicate the resolution to all interested parties.
- In the event of a significant business issue is still unresolved, the dispute will be resolved as specified in Section.4 "Terms and Conditions" , Clause 4.22 – Governing Law and Dispute Resolution

SLA CHANGE CONTROL

General

It is acknowledged that this SLA may change as Purchaser's business needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

- A process for negotiating changes to the SLA.
- An issue management process for documenting and resolving particularly difficult issues.
- Purchaser and Supplier management escalation process to be used in the event that an issue is not being resolved in a timely manner.

Any changes to the levels of service provided during the term of this agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this document and consequently the contract.

Changes/modification in the application, which require development efforts less than one month shall be considered as included in the scope. Any changes/modifications with require development effort more than one month will be considered for the payment based on mutually agreed terms and conditions.

SLA CHANGE PROCESS

Both the parties may amend this SLA by mutual agreement in accordance. Changes can be proposed by either party. Normally the forum for negotiating SLA changes will be Purchaser's monthly review meetings.

VERSION CONTROL

All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

MANAGEMENT ESCALATION PROCEDURES

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that purchaser and Supplier management are communicating at the appropriate levels. Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

- a. All issues would be raised to the project management team, which is completely responsible for the day to day aspects of the provided services. The project management team shall classify the issues based on their severity level and resolve them within appropriate timelines.
- b. If project management team is unable to resolve an issue, the issue would be escalated to the top management with options/ risks detailed for decision. Top management will make decisions based on the options/ risks presented by the IT team.

3.4 Purpose of EOI

Detailed as above

3.5 Solution provider/BA need to implement and manage the Entire system and oversee the overall functioning of the organization's network infrastructure, including planning, design, implementation, and maintenance with failure free environment and without any downtime in operations of KSEBL. **SLA shall be applied as per KSEBL's tender document and corrigendum released, if any on back-to-back basis.**

3.6 Bidder may submit their response in the prescribed form of duly signed and stamped for techno commercial bid through Online mode vide email sent to <https://railtel.eNivida.com> , within the stipulated date and time, as mentioned in this EOI document. The Bidder shall accompany necessary documents as prescribed in the Eoi.

3.7 Partners may note that this is a single stage, single Packet Bid Interested

3.8. Only those bids shall be opened, which have been submitted within the stipulated time as mentioned in this EOI document with required credentials and EMD.

3.9. Technical Bid contains following:-

Eligibility Criteria

S.N	Type	Description	Document Required
1	Existence / Origin	- The company must be registered in India. - The bidder should have been in the IT related services for the last 3 years.	- Incorporation/registration Certificate along with Memorandum & Articles of Association - Certificate consequent to change of name, if applicable
		The bidder should have been in the IT related services for the last 5 years.	
2	General	The company must have: I. Valid PAN card. II. Been registered with GST.	I. Copy of PAN Card. II. Copy of GST registration certificate.
3	General	The company should not be blacklisted by any Government institution/ Government PSU	Self-declaration, in case this is discovered to be otherwise, the bidder will be declared ineligible at any stage of the tender.
4	Turnover	Minimum Average Annual turnover of Rs. 3 Crores for any of the three financial years during the last five years ending 31 st March 2024.	Audited Balance Sheet & CA Certificate .
5	Net Worth	The bidder must have positive net worth in each of the last 3 FY's ending 31 st March 2024.	Audited Balance Sheet & CA Certificate
6	Empanelment	Bidder must be empanelled/in process of empanelment with RailTel as Business associate.	i) Copy of Empanelment letter or application details for BA with RCIL OR ii) If the Bidder is not empanelled with RailTel and has applied for empanelment and issue of letter of empanelment is pending, then Bidder has to submit proof of payment of empanelment fee/EMD or acknowledgement letter of submission of empanelment documents.

7	Experience	The bidder should have experience in successfully completing WAN implementation projects during the last five years in Central/ State Government /PSUs/ Nationalised Banks/ Corporate Organisations as follows: Implementation of SDWAN solution in any project OR Implementation of MPLS solution in any project.	Proof of Work Order & client certificate for successful completion to be submitted
8	General	The Bidder/OEM from a Country which shares a land border with India will be eligible only if they are registered with the competent authority as per Govt. of India Order, issued by Ministry of Finance vide No.F.No.6/18/2019-PPD dated 23/07/2020	Copy of document of registration with DPIIT, Govt. of India.
9	General	The bidder should submit valid letter from the OEMs in the specified format for all active components and associated software in the BoQ confirming the following: ▪ Authorization for bidder ▪ Confirm that the products quoted are not end of life products within next 5 years ▪ Undertake that the support including spares, patches etc. for the quoted products shall be available for next 7 years	OEM support letter to be submitted in the specified format
10	General	The bidder should have technically qualified professionals in its team having experience in any of the following areas: System Integration, Software defined network, Core network management, Security Management, Implementation of SDWAN solution	Declaration signed by Authorised signatory of the Bidder should be submitted
11	General	The OEMs of SDWAN Solution quoted by the bidder should have presence in IT industry in the country for the past 10 years.	1. Self-declaration by the OEM 2. Proof for previously supplied orders of the OEM
12	General	The OEM of SDWAN should have ISO 9001, ISO 14001, ISO 27001 or above certifications.	Copy of valid Certification documents
13	General	All products offered by the bidder should be available with the concerned OEMs as on date and should be publicly referenceable.	Self-declaration by the OEM
14	General	OEM should have a minimum annual turnover of Rs. 500 crores during the last three financial years (i.e., 2021-22, 2022-23 & 2023-24).	Certificate from Chartered Accountant should be submitted

15	General	The OEMs of SDWAN Solution should have local Technical Assistance Centre (TAC) support in India and Should have sales office and Support/Returned Materials Authorization (RMA) depot in Kerala/South India.	Details of Technical Assistance Centre, Sales office and Support/RMA depot
16	General	The OEM of SDWAN should have supplied and installed at least three SDWAN implementations each with a minimum of 1000 field/branch offices in Govt./PSU/Banks/Corporate Organisations in India. Out of the above three projects, one project shall be working satisfactorily for the past one year.	Copy of Work Orders and its satisfactory project completion Certificate
17	General	Bidder should be an ISO 9001 and ISO 27001 certified company.	Copy of certification from authorized certification body

Note:

- If any of the Bids is found to be incomplete, it will be liable for rejection.
- Bidder is to fill the above annexure and indicate the page numbers of the supporting document in the Proof while submitting response to the eligibility criteria.
- Relevant portions, in the documents submitted in pursuance of eligibility criterion mentioned above, shall be highlighted.
- Bidders must ensure that all required documents have been uploaded/submitted along with the bid to justify his/her eligibility.
- Bidder should be an authorized partner/seller of all the proposed solutions/products and should provide Manufacturer Authorization in the template provided in the RFP.

Price quote in the attached format (Annexure 8).

- Compliance of OEM/Vendors with their MAF's and all mandatory documents asked by KSEBL from OEM/Vendors.
- Unconditional Acceptance of contents the Tender document of KSEBL and any Other/General Document of CIAL Tender RFP along with corrigendum and addendum.
- Acceptance Letter of EoI
- Annexure Formats as mentioned in this EOI.
- All documents mentioned in checklist and annexures of this EOI
- The BA agrees to undertake Warranty, Maintenance contract for a minimum **period as per KSEBL**. Undertaking in this regard is to be submitted along with the technical bid.
- Contract Period Undertaking** – As per pertinent tender floated by KSEBL Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme” by Kerala state electricity board limited (KSEBL). Contract period shall be initially for a period of Sixty-five months (5 months project completion and 60 months onsite warranty period) from the date of commencement of installation, which includes six months implementation period and sixty months for onsite warranty period.

- viii. The bid should be duly signed and submitted by Authorized Signatory. The bidder has to submit notarized of non-judicial stamp paper of appropriate value Power of Attorney having authorized signatory's nomination along with board resolution in favour of power of attorney.
 - ix. The bidder has to mandatorily submit notarized Annexure-11 on non-judicial stamp paper of requisite value of Rs. 200, else bid shall be summarily rejected.
- 3.10.** Prospective bidder's bid evaluation will be done based on above mentioned documents. Bids of those Bidders who submit Technical Documents without OEM/Vendor Name, Make and Model, technical Compliance, and unconditional acceptance of the KSEBL hard Copies, will be summarily rejected.
- 3.11.** further complying technical requirement with supporting documents of OEM/Vendor MAF, datasheets, BOQ/BOM (wherever applicable) may be treated as technically qualified partner for Stage-1.
- 3.12.** Bidders selected as per Para 3.11 above will be treated as eligible for financial bid opening.

3.13 Financial Bid:

The Annexure 8 of for financial quote to be submitted for evaluation

3.14 Selection of Bidder: as per outcome of Clause 3.9 above

The bidder will be selected on the **lowest quote (L-1)** basis for complete 'Scope of Work' as mentioned in the EOI document and Physical documents of technical specifications of CIAL, subject to the respective overall bid is in compliance to the requirements of this EOI. The partner selected will be termed as 'Commercially Suitable Partner (hereafter referred to as 'CSP')'. It is ascertained, that the final selection of CSP will be on the L-1 basis only. Further, RailTel reserves the right to have negotiation with the CSP if required. However, RailTel reserves the right to select any Bidder irrespective of the ranking in the Bid list without assigning any reasons.

3.15 The partner selected through this EOI shall be deemed to be responsible for delivering of complete 'Scope of Work' as mentioned in the CIAL's tender document and subsequent corrigendum. However, RailTel at its discern, may take- up a certain portion / percentage of 'Scope of Work' by communicating to the CSP at any point of time during the engagement period. (The day at which 'CSP' is declared, will mark the start of engagement period. The period will be valid till final outcome of this tender as announced by KSEBL. In case, RailTel comes out to be winner of the KSEBL tender, then the engagement period will get auto-extended to the period RailTel serves KSEBL for the concerned tender, unless terminated earlier by RailTel as per terms and conditions mentioned in this EOI document). In this scenario, commercial engagement with the CSP will be for that portion / percentage only, which has not been taken by RailTel. Accordingly, resultant value of work will be derived on the basis of negotiated (in case) commercial bid of the CSP.

3.16 RailTel on the basis of inputs / factors available to it from various resources, past experiences of its ICT projects and on the basis of negotiated (in case) commercial bid of the CSP, will endeavour to place best techno-commercial bid in response to the pertinent KSEBL tender. Further relationship with CSP will be based on the outcome pertinent KSEBL tender.

4 General Requirements and Eligibility Criteria for Bidders

4.1. The interested bidder should be an Empaneled Partner/ In process of Empanelment with RailTel on the last date of bid submission of EOI & has to provide relevant documents to qualify as per relevant Clause of this EOI.

- 4.2. The interested bidder should submit Earnest Money Deposit (EMD) if applicable, in the format as mentioned in this EOI document along with the bid.
- 4.3. The interested bidder should be in compliance to insertion of Rule 144(xi) in the GFR, 2017 vide office OM no. 6/18/2019-PPD dated 23-July-2020 issued by Ministry of Finance, Government of India, including revisions.
- 4.4. The interested bidder should submit an undertaking for maintaining of 'Local Content Compliance' and shall submit a certificate mentioning the 'Local Content Percentage' duly signed and stamped by statutory auditor or cost auditor or authorized signatory of the interested partner. This will not be a binding clause in cases where end customer has not asked Local Content Clause/Make in India Clause in their Current RFP.
- 4.5 The bidder has to mandatorily provide all Annexures of this Eoi and corrigendum(s) thereof.**
- 4.6. The interested bidder should not be backlisted by any State / Central Government Ministry / Department / Corporation / Autonomous Body on the last date of submission of EOI.
- 4.7. There should not be any ongoing or past, arbitration case(s) between 'RailTel or Organizations under Indian Railways' and 'Interested Bidder' on the last date of submission of EOI.
- 4.8. The interested bidder shall not have a conflict of interest with one or more bidding parties. Participation of interested bidder(s) with a conflict-of-interest situation will result in the disqualification of all bids in which it is involved. A bidder may be in a conflict of interest with one or more parties if including but not limited to:
- Have controlling shareholders as his/her family members viz. spouse, son, daughter, father, mother or brother etc. in common or;
 - Have a relationship with each other directly or through common third parties that puts them in a position to have access to information about or influence on the bid of another interested partner.
- 4.9. The interested bidder should not be seeking/extending/exploring similar arrangements /engagements with any other organization except RailTel, for the KSEBL tender.
- 4.10. The interested partner should have a valid Goods and Service Tax Identification Number (GSTIN), as on the last date of submission of EOI.
- 4.11. In addition to above clauses, bid of interested bidder should be in compliance to terms and conditions and technical requirements of the pertinent KSEBL tender as referred above.

Note: The interested bidder should submit duly signed and stamped EOI cover letter as per the format mentioned at Annexure-02 of this EOI document, as unconditional submission of meeting the clauses mentioned above, from **Clause 4.1. to Clause 4.11**

5 Resources to be Deployed

- The bidder shall carry out all necessary activities during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.
- Adequate training, required to carry out the activities mentioned in the scope of work above, shall be provided by Bidder to all deployed resources.
- Boarding, lodging, transportation, and all other expenses of the deployed resources are to be borne by bidder,

- iv. The Authority shall be at liberty to object to and require the bidder to remove from the works any person who in his opinion misconducts himself or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Authority to be undesirable. Such person shall not be employed again at works site without the written permission of the Authority and the persons so removed shall be replaced within a week's time by competent substitutes.
- v. The Authority has agreement with the bidder only, it is the responsibility of the bidder to ensure all due diligence is carried out for background verification of resources deployed. And in any case, the Authority will not be responsible for the violation of due diligence or offence committed by the bidder or any of its resources.

6 Proposal Preparation and Submission Cost

- 6.1. The interested partner is responsible for all costs incurred in connection with participation in this EOI process, including, but not limited to, cost incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by RailTel to facilitate the evaluation process or all such activities related to the bid process. RailTel will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. This EOI document does not commit to award a contract or to engage in negotiations.

7 Amendment to EOI Document

- 7.1. At any time prior to the deadline for submission of bids, RailTel, may, for any reason can modify the EOI document by an amendment. All the amendments made in the document would be informed by displaying on RailTel's (www.railtelindia.com) website only. The interested bidders are advised to visit the RailTel website on regular basis for checking necessary updates. RailTel also reserves the rights to amend the dates mentioned in this EOI for bid process. RailTel may, at its discretion, extend the last date for receipt of EOI response Individual advices in this connection is not treated as mandatory.

8 Bid, PBG and SD Validity Period

- 8.1. Bid of Interested partners shall remain valid for the period of 210 days from the date of opening the price bid.
- 8.2. RailTel may request for an extension of the period of validity. The validity of the 'EMD', should also be suitably extended if called upon to do so by RailTel. The request and the responses thereto shall be made in writing through e-mail communication only. Further, whenever the bid validity extension is submitted by the interested partner, it should be ensured by interested partner that their PBG (Performance bank Guarantee) and Security Deposit (SD) related to the empanelment should have minimum validity of 120 days from the last date of extended completion period.

9 Right to Terminate the Process

- 9.1. RailTel may terminate the EOI process at any time without assigning any reason. RailTel makes no commitments, express or implied, that this process will result in a business transaction with anyone. This EOI does not constitute an offer by RailTel. The interested bidder's participation in this process may result in RailTel selecting the CSP to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by RailTel to execute a contract or to continue negotiations. RailTel may terminate negotiations at any time without assigning any reason.

10 Language of Bid

- 10.1. The bid prepared by the interested partner and all correspondence and documents relating to the bids exchanged by the bidder and RailTel, shall be written in English Language, provided that any printed literature furnished by the Bidder in another language shall be accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Authorised Signatory of the interested partner.

11 Submission of Bid

- 11.1. The Bidder should take into account any Corrigendum to this EOI document that may have been published before submitting their EOI response. The bid is to be submitted in the mode as mentioned in this EOI document. EOI response submitted in any other mode will not be entertained.
- 11.2. Bidders in their own interest are advised to submit the EOI response well in time before the last date and hence to avoid any inconvenience at the last moment.
- 11.3. An Organization / Bidder can submit only 'One EOI Response'. Submission of multiple EOI Response by bidder(s) may lead to rejection of all of its bid.

12 Rights to Accept / Reject any or all EOI Response

- 12.1. RailTel reserves the right to accept or reject any EOI Response, and to annul the bidding process and reject all Bids at any time prior to award of the Contract, without thereby incurring any liability to the affected interested bidder(s), or any obligation to inform the affected Bidders of the ground for RailTel's action.

13 Payment Terms

Back-to-back basis as per CIAL RFP No. CEIT/ITCSD/15/2024-25 dated 28.12.2024 and as per Payment terms below:

13.1 Terms of Payment:

Activity	Payment Schedule	Milestones
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<u>Milestone-I</u> Supply of the following: • All hardware and software components with accessories required for setting up SDWAN at the Data Centre and DR Centre as per BoQ • All hardware and software components with accessories for setting up SDWAN at Phase-I field offices (300 offices) as per BoQ	50% of the cost quoted for the hardware and software components at Data Centre, DR Centre and Phase-I field offices	Supply of items by the bidder and then purchaser confirmation that materials are received as per the Work Order conditions
<u>Milestone-II</u> Installation, configuration, system integration, testing, and commissioning all hardware and software components with accessories for setting up SD WAN backend infrastructure at the Data Centre and DR Centre	• 30% of the cost quoted for the hardware and software components at Data Centre and DR Centre • 80% of installation charges quoted for the Data Centre and DR Centre components	On purchaser approval that installation, configuration, system integration, testing and commissioning of hardware and software components at Data Centre and DR Centre have been successfully completed
<u>Milestone-III</u> Installation, configuration, system integration, testing, and commissioning of Edge Devices and LAN switches for the Phase-I offices and the successful migration of the above- mentioned field offices to SD-WAN	• 30% of the cost quoted for the hardware and software components at Phase-I offices • 80% of installation charges quoted for the Phase-I offices	On purchaser approval that the installation, configuration, system integration, testing and commissioning of Edge Devices and LAN switches for Phase-I offices have been completed and the above offices are fully migrated to SD-WAN.
<u>Milestone-IV</u> Supply of all hardware and software components with accessories as per BoQ for the Phase-II field offices (590 offices)	50% of the cost quoted for the hardware and software components at Phase-II offices	Supply of items by bidder and then purchaser confirmation that materials are received as per the Work Order conditions
<u>Milestone-V</u> Installation, configuration, system integration, testing, and	30% of the cost quoted for the hardware and	On purchaser approval that the installation, configuration, system integration, testing and commissioning
<u>commissioning of Edge Devices and LAN switches for the Phase-II offices (by KSEB IT team), and successful migration of the above field offices to SD-WAN</u>	software components at Phase-II offices	of Edge Devices and LAN switches in Phase-II offices have been completed successfully and the above offices are fully migrated to SD-WAN.

<u>Milestone-VI</u> <u>Closure of all security observations given by KSEB Information Security Division and conduct OEM professional certification training program for KSEB employees</u>	• 10% of the cost quoted for all hardware and software components of DC/DR and Phase-I & Phase-II field offices • 10% of installation charges quoted for DC/DR and Phase-I offices	On purchase approval that all security observations are closed and professional certification training has been provided to the KSEBL Team as per the training schedule mentioned in the SoW
<u>Milestone-VII</u> <u>Successful go-live of the total SD- WAN solution for one month</u>	• 10% of the cost quoted for all hardware and software components of DC/DR and Phase-I & Phase-II field offices • 10% of installation charges quoted for DC/DR and Phase-I offices	On purchaser approval that new SD-WAN solution including all hardware, software etc. in the Data Centre, DR Centre and Field Offices is running satisfactorily as per the performance requirements given in the RFP
<u>Man Power charges – Onsite L2/L3 Resource</u>	Payment will be made on quarterly basis on pro-rata basis after completion of each quarter	On purchaser approval that all duties of onsite resource has been carried out satisfactorily

13.2 Annual Maintenance Charges as per RFP if applicable.

13.3. Documents list required (as applicable) at the time of payment/invoice submission by selected bidder shall be:

-

- Valid Tax Invoice (in Triplicate, where supply is Involved)
- Delivery Challan and e way bill
- Factory Test Report
- QA& COQ inspection certificate duly signed by OEM.
- Inspection Certificate or Approval of waiver for the same as applicable.
- Packaging List

- Purchaser's Inspection certificate
- Consignee receipt
- Warranty certificate of OEM
- Insurance certificate
- A certificate duly signed by the firm certifying that equipment/ materials being delivered are new and conform to technical specification.
- A certificate duly signed by the firm certifying that the equipment/ materials being delivered are complete in all respect for the concerned items for which the payment is being released.

All payments shall be released after sign-off by the CIAL.

14 Performance Bank Guarantee

Bidder has to furnish bank guarantee as performance security for the supplied equipments and services

A Performance Bank Guarantee 10% of the accepted value of work (without limit) shall be furnished by the Successful Bidder within 15 days of receipt of LOA. The said bank guarantee shall be initially valid up to ninety (90) days. No interest shall be paid by the Purchaser on the Bid Security deposited by the Bidder

- 14.1. RailTel shall also be entitled to make recoveries from the CSP's bills, PBG or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.
- 14.2. If the service period / contract value undergo variation PBG also shall be varied accordingly
- 14.3. During the contract period, RailTel may issue Purchase Order(s) for the additional services ordered by CIAL (in case) to RailTel. In such scenario(s) also, Clause No. 13.1. to Clause No. 13.4. are to be followed by the CSP.
- 14.4. In case the CIAL has sought PBG of the contract in the terms of Indemnity Bond from RailTel, the selected bidder has to provide the equivalent value PBG from scheduled Bank to RailTel. No Indemnity Bond from Selected Bidder will be accepted in lieu of PBG from Scheduled Bank.
- 14.7. In case CIAL has sought any other types of PBG, at present or in future or else Integrity Pact PBG (presently or in future), same remain applicable on selected Bidder. The Said PBG will be issued by Selected Bidder from Scheduled Bank favouring RailTel Corporation of India Limited. No Indemnity Bond in lieu of such PBG will be accepted by RailTel.
- 14.8 Integrity pact in the format if any, as per KSEBL to be provided by the Bidder.

Note

1. All PBG upto Rs 5,00,000 /- will be accepted only through Bank transfer only.
2. As per RBI guidelines BG above Rs 50,000 /- should be signed by two Bank officials.
3. PBG should be from scheduled commercial Bank (either private or PSU) but not from any cooperative Bank or NBFC.
4. It is to be ensured that BG issuing Bank must be SFMS enabled. Under SFMS system, a separate advice of the BG (via SFMS IFN 760COV) to be sent to the advising Bank (RailTel) through SFMS by the issuing Bank

(Applicant). Similar process to be followed for Bank Guarantee amendment also and separate advice (via SFMS IFN 767COV) is sent to the advising bank (RailTel).

5. The minimum gap between BG expiry date and BG claim date should be 12 months.

The Bank guarantee (BG) if required, should be extended by the bidder at least 90 days before its expiry; failure to do so will result in the encashment of the BG.

15 Details of Commercial Bid / Financial Bid

- 15.1. Partner should submit commercial bid strictly as per the format mentioned by CIAL or in subsequent corrigendum's (if any).
- 15.2. The commercial bid should clearly bring out the cost of the services with detailed break- up of taxes.
- 15.3. The rates mentioned in the commercial bid of the CSP will form basis of commercial transaction between RailTel and bidder.
- 15.4. The quantity of 'Line Items' may vary at the time of placing of Purchase Order or during the Contract Period, as communicated by CIAL (in case) to RailTel. In such scenarios, the 'Per Unit' cost will be considered to arrive on contractual amount between RailTel and CSP.
- 15.5. It is also possible that CIAL may surrender / increase, some or all of the quantities of service items ordered to RailTel during the contract period and accordingly the contractual amount between RailTel and CSP shall be considered, at sole discern of RailTel.
- 15.6. It is also possible that during the contract period, CIAL may raise Purchase Order to RailTel for the line items (and respective quantities) which are not mentioned in the pertinent tender of CIAL. In such scenario, RailTel at its sole discretion, may extend the scope of the contract with CSP by placing order to CIAL, on back-to- back basis.
- 15.7. In addition to the Payment Terms, all other Contractual Terms will also be on 'back- to-back' basis between RailTel and CSP, as mentioned in the pertinent CIAL tender. MAF (Manufacturer's Authorization Form) in the name of RailTel and another MAF in Bidders Name (separately with reference to this EOI) from the OEMs, whose product is mentioned in commercial bid format, should also be ensured by the partner. The MAF format and required content should be in-line with CIAL tender, if specifically asked by CIAL in a particular format.

16 Duration of the Contract Period

- 16.1. The contract duration shall be same as of KSEBL contract duration with RailTel until otherwise terminated earlier. Indicative contract duration is as per KSEBL RFP, unless otherwise terminated/modified, as mentioned in this EOI document and subject to award of contract to RailTel. The contract duration can be renewed /extended by RailTel at its discern, in case KSEBL extends / RailTel renews services with RailTel by virtue of extending / renewing / new issuance of one or more Purchase Order(s) placed by KSEBL to RailTel.

17 Restrictions on 'Transfer of Agreement'

- 17.1. The CSP shall not assign or transfer its right in any manner whatsoever under the contract / agreement to a third party or enter into any agreement for sub- contracting and/or partnership relating to any subject matter of the contract / agreement to any third party either in whole or in any part i.e., no sub-contracting / partnership / third party interest shall be created.

18 Suspension, Revocation or Termination of Contract / Agreement

- 18.1. RailTel reserves the right to suspend the operation of the contract / agreement, at any time, due to change in its own license conditions or upon directions from the competent government authorities, in such a situation, RailTel shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Further, the suspension of the contract / agreement will not be a cause or ground for extension of the period of the contract / agreement and suspension period will be taken as period spent. During this period, no charges for the use of the facility of the CSP shall be payable by RailTel.
- 18.2. RailTel may, without prejudice to any other remedy available for the breach of any conditions of agreements, by a written notice as per GCCA of contract or as per CIAL tender condition whichever is issued to the CSP.

RailTel shall terminate/or suspend the contract /agreement under any of the following circumstances:

- a) The CSP failing to perform any obligation(s) under the contract / agreement.
- b) The CSP failing to rectify, within the time prescribed, any defect as may be pointed out by RailTel.
- c) Non adherence to Service Level Agreements (SLA) which RailTel has committed to CIAL.
- d) The CSP going into liquidation or ordered to be wound up by competent authority
- e) If the CSP is wound up or goes into liquidation, it shall immediately (and not more three days) inform about occurrence of such event to RailTel in writing. In such case, the written notice can be modified by RailTel as deemed fit under the circumstances. RailTel may either decide to issue a termination notice or to continue the agreement by suitably modifying the conditions, as deemed fit. It shall be the responsibility of the CSP to maintain the agreed Quality of Service, even during the period when the notice for surrender/termination of contract / agreement is pending and if the Quality of Performance of Solution is not maintained, during the said notice period, it shall be treated as material breach liable for termination at risk and consequent of which CSP's PG related to contract / agreement along with PG related to the Empanelment Agreement with RailTel shall be forfeited, without any further notice.
- f) Breach of non-fulfilment of contract / agreement conditions may come to the notice of RailTel through complaints or as a result of the regular monitoring. Wherever considered appropriate RailTel may conduct an inquiry either Suo- moto or on complaint to determine whether there has been any breach in compliance of the terms and conditions of the agreement by the successful bidder or not. The CSP shall extend all reasonable facilities and shall endeavour to remove the hindrance of every type upon such inquiry. In case of default by the CSP in successful implementation and thereafter maintenance of services / works as per the conditions mentioned in this EOI document, the PG(s) of CSP available with RailTel can be forfeited.

19 Dispute Settlement

- 19.1 In case of any dispute concerning the contract / agreement, both the CSP and RailTel shall try to settle the same amicably through mutual discussion / negotiations. Any unsettled dispute shall be settled in terms of Indian Act of Arbitration and Conciliation 1996 or any amendment thereof. Place of Arbitration shall be New Delhi.
- 19.2 The arbitral tribunal shall consist of the Sole Arbitrator. The arbitrator shall be appointed by the Chairman & Managing Director (CMD) of RailTel Corporation of India Ltd.

19.3 All arbitration proceedings shall be conducted in English.

20 Governing Laws

20.1. The contract shall be interpreted in accordance with the laws of India. The courts at New Delhi shall have exclusive jurisdiction to entertain and try all matters arising out of this contract.

21 Statutory Compliance

- 21.1. During the tenure of this Contract nothing shall be done by CSP in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof and shall keep RailTel indemnified in this regard.
- 21.2. The Bidder shall comply and ensure strict compliance by his/her employees and agents of all applicable Central, State, Municipal and Local laws and Regulations and undertake to indemnify RailTel, from and against all levies, damages, penalties and payments whatsoever as may be imposed by reason of any breach or violation of any law, rule, including but not limited to the claims against RailTel or its Customer under Employees Compensation Act, 1923, The Employees Provident Fund and Miscellaneous Provisions Act, 1952, The Contract Labour (Abolition and Regulation) Act 1970, Factories Act, 1948, Minimum Wages Act and Regulations, Shop and Establishment Act and Labour Laws which would be amended/modified or any new act if it comes in force whatsoever, and all actions claim and demand arising therefrom and/or related thereto.

22 Intellectual Property Rights

- 22.1. Each party i.e., RailTel and CSP, acknowledges and agree that the other party retains exclusive ownership and rights in its trade secrets, inventions, copyrights, and other intellectual property and any hardware provided by such party in relation to this contract / agreement.
- 22.2. Neither party shall remove or misuse or modify any copyright, trade mark or any other proprietary right of the other party which is known by virtue of this EOI and subsequent contract in any circumstances

23 Severability

- 23.1. In the event any provision of this EOI and subsequent contract with CSP is held invalid or not enforceable by a court of competent jurisdiction, such provision shall be considered separately and such determination shall not invalidate the other provisions of the contract and Annexure/s which will be in full force and effect.

24 Force Majeure

- 24.1. If during the contract period, the performance in whole or in part, by other party, of any obligation under this is prevented or delayed by reason beyond the control of the parties including war, hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the parties), fire, floods, earthquakes, natural calamities or any act of GOD(hereinafter referred to as EVENT) , provided notice of happenings of any such event is given by the affected party to the other, within twenty one (21) days from the date of occurrence thereof, neither party shall have any such claims for damages against the other, in respect of such non- performance or delay in performance. Provided service under this contract shall be resumed as soon as practicable, after such EVENT comes to an end or ceases to exist.

- 24.2. In the event of a Force Majeure, the affected party will be excused from performance during the existence of the force Majeure. When a Force Majeure occurs, the affected party after notifying the other party will attempt to mitigate the effect of the Force Majeure as much as possible. If such delaying cause shall continue for more than sixty (60) days from the date of the notice stated above, the party injured by the inability of the other to perform shall have the right, upon written notice of thirty (30) days to the other party, to terminate this contract. Neither party shall be liable for any breach, claims, and damages against the other, in respect of non-performance or delay in performance as a result of Force Majeure leading to such termination.

25 Indemnity

- 25.1. The CSP agrees to indemnify and hold harmless RailTel, its officers, employees and agents (each an "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from:
- a) Any mis -statement or any breach of any representation or warranty made by CSP
 - b) The failure by the CSP to fulfil any covenant or condition contained in this contract by any employee or agent of the Bidder. Against all losses or damages arising from claims by third Parties that any Deliverables (or the access, use or other rights thereto), created by CSP pursuant to this contract, or any equipment, software, information, methods of operation or other intellectual property created by CSP pursuant to this contract, or the SLAs (i) infringes a copyright, trade mark, trade design enforceable in India, (ii) infringes a patent issues in India, or (iii) constitutes misappropriation or unlawful disclosure or used of another Party's trade secrets under the laws of India (collectively, "Infringement Claims"); or
 - c) Any compensation / claim or proceeding by any third party against RailTel arising out of any act, deed or omission by the CSP
 - d) Claim filed by a workman or employee engaged by the CSP for carrying out work related to this agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.
- 25.2. Any payment made under this contract to an indemnity or claim for breach of any provision of this contract shall include applicable taxes.

26 Limitation of Liability towards RailTel

- 26.1. The CSP (SI/BA) liability under the contract shall be determined as per the Law in force for the time being. The CSP shall be liable to RailTel for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the CSP and its employees (direct or indirect), including loss caused to RailTel on account of defect in goods or deficiency in services on the part of CSP or his agents or any person / persons claiming through under said CSP, However, such liability of the CSP shall not exceed the total value of the contract.
- 26.2. This limit shall not apply to damages for bodily injury (including death) and damage to real estate property and tangible personal property for which the CSP is legally liable.

27 Confidentiality cum Non-disclosure

- 27.1. The Receiving Party agrees that it will not disclose to third party/parties any information belonging to the Disclosing Party which is provided to it by the Disclosing Party before, during and after the execution of this contract. All such information belonging to the Disclosing Party and provided to the Receiving Party shall be considered Confidential Information. Confidential Information includes prices, quotations, negotiated issues made before the execution of the contract, design and other related information. All information provided by Disclosing Party to the Receiving Party shall be considered confidential even if it is not conspicuously marked as confidential.
- 27.2. Notwithstanding the foregoing, neither Party shall have any obligations regarding non- use or non-disclosure of any confidential information which:
- 27.2.1. Is already known to the receiving Party at the time of disclosure:
 - 27.2.2. Is or becomes part of the public domain without violation of the terms hereof;
 - 27.2.3. Is shown by conclusive documentary evidence to have been developed independently by the Receiving Party without violation of the terms hereof:
 - 27.2.4. Is received from a third party without similar restrictions and without violation of this or a similar contract.
- 27.3 The terms and conditions of this contract, and all annexes, attachments and amendments hereto and thereto shall be considered Confidential Information. No news release, public announcement, advertisement or publicity concerning this contract and/or its contents herein shall be made by either Party without the prior written approval of the other Party unless such disclosure or public announcement is required by applicable law.
- 27.4 Notwithstanding the above, information may be transmitted to governmental, judicial, regulatory authorities, if so, required by law. In such an event, the Disclosing Party shall inform the other party about the same within 30 (thirty) Days of such disclosure.
- 27.5 This Confidentiality and Non- Disclosure clause shall survive even after the expiry or termination of this contract.

28 Assignment

- 28.1 Neither this contract nor any of the rights, interests or obligations under this contract shall be assigned, in whole or in part, by operation of law or otherwise by any of the Parties without the prior written consent of each of the other Parties. Any purported assignment without such consent shall be void. Subject to the preceding sentences, this contract will be binding upon, inure to the benefit of, and be enforceable by, the Parties and their respective successors and assigns.

29 Insurance

The CSP shall agree to take insurances to cover all the elements of the project under this EOI including but not limited to Manpower, Hardware, Software and Services etc. as per CIAL tender specified terms.

30 Exit Management

30.1 Exit Management Purpose

30.1.1 This clause sets out the provision, which will apply during Exit Management period. The parties shall ensure that their respective associated entities carry out their respective obligation set out in this Exit Management Clause.

30.1.2 The exit management period starts, in case of expiry of contract, at least 03 months prior to the date when the contract comes to an end or in case of termination contract, on the date when the notice of termination is sent to the CSP. The exit management period ends on the date agreed upon by RailTel or Three (03) months after the beginning of the exit management period, whichever is earlier.

30.2 Confidential Information, Security and Data:

CSP will promptly, on the commencement of the exit management period, supply to RailTel or its nominated agencies the following (if asked by RailTel in writing):

30.2.1 Information relating to the current services rendered and performance data relating to the performance of the services; documentation relating to the project, project's customized source code (if any); any other data and confidential information created as part of or is related to this contract;

30.2.2 All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable RailTel and its nominated agencies, or its replacing vendor to carry out due diligence in order to transition the provision of the services to RailTel or its nominated agencies, or its replacing vendor (as the case may be).

30.3 Employees : Promptly on reasonable request at any time during the exit management period, the CSP shall, subject to applicable laws, restraints and regulations (including in particular those relating to privacy) provide RailTel a list of all employees (with job titles and communication address), dedicated to providing the services at the commencement of the exit management period; To the extent that any Transfer Regulation does not apply to any employee of the CSP, RailTel or the replacing vendor may make an offer of contract for services to such employees of the CSP and the CSP shall not enforce or impose any contractual provision that would prevent any such employee from being hired by RailTel or any replacing vendor.

30.4 Rights of Access to Information: Besides during the contract period, during the exit management period also, if asked by RailTel in writing, the CSP shall be obliged to provide an access of information to RailTel and / or any Replacing Vendor in order to make an inventory of the Assets (including hard software / active / passive), documentations, manuals, catalogues, archive data, Live data, policy documents or any other related material.

Note: RailTel at its sole discern may not enforce any or all clauses / sub-clauses under the

'Exit Management' clause due to administrative convenience or any other reasons as deemed fit.

31 Waiver

31.1. Except as otherwise specifically provided in the contract, no failure to exercise or delay in exercising, any right, power or privilege set forth in the contract will operate as a waiver of any right, power or privilege.

32 Changes in Contract Agreement

No modification of the terms and conditions of the Contract Agreement shall be made except by written amendments signed by the both CSP and RailTel.

33 ANNEXURES

33.1 ANNEXURE 1

FORMAT FOR PROJECT EXPERIENCE CITATIONS

Sl. No.	Item	Bidder's Response
1	Name of Bidder entity	
2	Assignment Name	
3	Name & Address of Client	
4	Approximate Value of the Contract (in INR Crores)	
5	Duration of Assignment (months)	
6	Start Date (month/year)	
7	Completion Date (month/year)	
8	Narrative description of the project	
9	Details of Work that defines the scope relevant to the	
10	Documentary Evidence attached	

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.2 ANNEXURE 2

EOI COVER LETTER

(On Organization Letter Head)

EOI Ref No:

Date:

To,

The Joint General Manager (ERS)

RailTel Corporation India Limited,

Kerala Territory Office,

1st Floor, Eastern Entry Tower

Ernakulam South Railway Station

Ernakulam – 682016

Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum / clarifications. **Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>)**

Dear Sir/ Madam

1. I, the undersigned, on behalf of M/s, having carefully examined the referred EOI offer to participate in the same, in full conformity with the said EOI and all the terms and conditions thereof, including corrigendum issued till last date of submission of EOI. It is also undertaken and submitted that we are in abidance of Clause 4 of EOI.
2. I agree to abide by this Proposal, consisting of this letter, our Pre-qualification, Technical and Commercial Proposals, for a period of 210 days from the date fixed for submission of Proposals as stipulated in the EOI and modifications resulting from contract negotiations, and it shall remain binding upon us and maybe accepted by you at any time before the expiration of that period.
3. I acknowledge that the Authority will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selection of the Commercially Suitable Partner (CSP) for there for said Service, and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Proposal are true copies of their respective originals.
4. I undertake, if our Bid is accepted, to commence our services as per scope of work as specified in the contract document.
5. Until a formal Purchase Order or Contract is prepared and executed, this Bid and supplement / additional documents submitted (if any), together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.

6. I hereby undertake and give unconditional acceptance for compliance of all terms & conditions Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum / clarifications. Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>) against this EOI based customer's requirement.
7. I hereby undertake that there will be no deviation from the Terms and Conditions of EOI and Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum / clarifications. Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>)

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.3 ANNEXURE 3**(Local Content Compliance)**

EOI Ref. No:

Date:

To,

The Joint General Manager (ERS)

RailTel Corporation India Limited,

Kerala Territory Office,

1st Floor, Eastern Entry Tower

Ernakulam South Railway Station

Ernakulam – 682016

Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum clarifications. **Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>)**

Dear Sir / Madam

I, the undersigned, on behalf of M/s, hereby submits that our technical solution for the 'Scope of Work' mentioned under the EOI document is in compliance of local content requirement and makes us equivalent to 'Class-I local supplier' / 'Class-II local supplier' (mention whichever is applicable) for the EOI under reference, as defined under the order No. P-45021/2/2017-PP(BE-II) dt. 04-June-2020 issued by Ministry of Commerce and Industry, Govt. of India.

I hereby certify that M/sfulfils all requirements in this regard and is eligible to be considered and for the submitted bid Local Content Percentage is % (write in figures as well as in words).

I hereby acknowledge that in the event of acceptance of bid on above certificate and if the certificate is found to be false at any stage, the false certificate would be a ground for immediate termination of contract and further legal action in accordance with the Law, including but not limited to the encashment of Bank Guarantee related to Empanelment and Performance Bank Guarantee (PBG) and Security deposit (SD), as available with RailTel, related to this EOI. Signature of Authorized Signatory.

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.4 ANNEXURE 4**CHECKLIST OF DOCUMENTS FOR BID SUBMISSION**

KSEBL Tender Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum / clarifications.
 Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>)

Sl. No.	Document
1	EOI Cover Letter (Annexure-02)
2	Technical compliance sheet
3	Price bid
4	Local Content Compliance & Percentage Amount (annexure-03)
5	TECHNICAL BID COVER LETTER
6	COMMERCIAL BID COVER LETTER
7	EMD as per EOI document
8	This EOI copy duly Signed and Stamped by the Authorized Signatory Of Bidder
9	All Annexure/ Appendices/Formats/ Declarations as per KSEBL CEIT/ITCSD/15/2024-25 dated 28.12.2024; addressing to RailTel.
10	Compliance of eligibility criteria related documents as per Clause 3
11	Any relevant document found suitable by bidder

Note:

1. The technical bid should have a 'Index' at the starting and all pages of bid should be serially numbered and should be traceable as per the 'Index'.
2. All the submitted documents should be duly stamped and signed by the Authorized Signatory at each page.
3. The above checklist is indicative only. RailTel may ask for additional documents from the bidders, as per the requirement

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.5 ANNEXURE 5**FORMAT FOR TECHNICAL BID COVER LETTER**

(On Company Letter Head)

To,

The Joint General Manager (ERS)

RailTel Corporation India Limited,

Kerala Territory Office,

1st Floor, Eastern Entry Tower

Ernakulam South Railway Station

Ernakulam – 682016

Sub: Submission of the response to the Tender No. <<tender id>>Request for Proposal for the Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme. We, the undersigned, offer to provide services for Request for Proposal Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme in response to the request for proposal dated <insert date> and tender reference no <> “Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme” by KSEBL. We are hereby submitting our proposal online, which includes the pre-qualification, technical bid, and commercial bid.

We hereby declare that all the information and statements made in this technical bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We undertake, if our proposal is accepted, to initiate the implementation services related to the assignment not later than the date indicated in this tender.

We agree to abide by all the terms and conditions of the RFP and related corrigendum(s)/ addendum(s). We would hold the terms of our bid valid for 210 days from the date of opening of the commercial bid as stipulated in the RFP. We hereby declare that as per RFP requirement, we have not been black listed/ debarred by any Central/ State Government and we are not the subject of legal proceedings for any of the foregoing.

We understand you are not bound to accept any proposal you receive.

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.6 ANNEXURE 6

FORMAT FOR COMMERCIAL BID COVER LETTER

To,

The Joint General Manager (ERS)

RailTel Corporation India Limited,

Kerala Territory Office,

1st Floor, Eastern Entry Tower

Ernakulam South Railway Station

Ernakulam – 682016

Dear Sir,

We, the undersigned Bidder, having read and examined in detail all the tender documents with respect to Request for Proposal (RFP) for Revamping of IT Infrastructure components in the Data Centre and Disaster Recovery Centre of CIAL under RDSS Scheme, do hereby propose to provide services as specified in the tender reference No. TENDER NO: CEIT/ITCSD/15/2024-25 dated 28.12.2024

Price and Validity

- a) All the prices mentioned in our bid are in accordance with the terms & conditions as specified in the RFP. The validity of bid is 8 months from the date of opening of the commercial bid.
- b) We are an Indian firm and do hereby confirm that our prices are inclusive of all duties, levies etc., excluding GST.
- c) We have studied the clause relating to Indian Income Tax and hereby declare that if any income tax, surcharge on income tax, professional and any other corporate tax is altered under the law, we shall pay the same.

Unit rates: We have indicated in the relevant schedules enclosed, the unit monthly rates for the purpose of accounting of payments as well as for price adjustment in case of any increase / decrease from the scope of work under the contract.

Deviations:

We declare that all the services shall be performed strictly in accordance with the RFP irrespective of whatever has been stated to the contrary anywhere else in our bid. Further, we agree that additional conditions, if any, found in our bid documents, shall not be given effect to. We had remitted an EMD as specified in the tender document terms.

Tender pricing: we further confirm that the prices stated in our bid are in accordance with your instruction to bidders included in tender documents.

Qualifying data: we confirm having submitted the information as required by you in your instruction to bidders. In case you require any other further information/ documentary proof in this regard before evaluation of our tender, we agree to furnish the same in time to your satisfaction.

Bid price: we declare that our bid price is for the entire scope of the work as specified in the RFP. These prices are indicated in annexure-commercial bid format attached with our tender as part of the tender.

Performance bank guarantee and Security Deposit: we hereby declare that in case the contract is awarded to us, we shall submit the performance bank guarantee. We hereby declare that our tender is made in good faith, without collusion or fraud and the information contained in the tender is true and correct to the best of our knowledge and belief. We understand that our tender is binding on us and that you are not bound to accept a tender you receive.

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.7 ANNEXURE 7**TECHNICAL COMPLIANCE SHEET****TECHNICAL SPECIFICATION**

The Service/OEM/MAKE specified are based on the existing network requirement for the present scope of work. This shall be followed as per the special condition of contract as per the relevant conditions of special conditions of contract as appended as per RFP back to basis.

TECHNICAL SPECIFICATIONS**Secure SDWAN General Features****SECURE SD-WAN SOLUTION SPECIFICATIONS:**

The main requirement for the Secure SD-WAN Solution is as follows:

- Provide a SD-WAN solution which is L7 application-aware, offers automatic WAN path control and multi-WAN underlay support along with NGFW security.
- NGFW Feature along with Real-time SSL/TLS Inspection capabilities and Layer 7 Firewalling / Application Control for Branch offices.
- SD-WAN solution should have self-healing capabilities for enhanced user experience.
- Simplified operations with NOC/SOC management and analytics
- Enhanced Granular Analytics for end-to-end visibility and control.
- Should have Security features like Anti-Malware, URL Filtering, IPS and Botnet protection.

Specifications for Secure SD-WAN Solution			
SI No	Features/Specifications	Complied Yes/no	Remarks
Standard Specifications			
1	The proposed SD WAN Solution should be implemented as true software defined network architecture with a centralized control/management plane residing in the SDWAN controller/Manager/Orchestrator with logical separation of control/management and data plane. It shall integrate different types of connectivity (MPLS, ILL, FTTH, Broadband, LTE) into a single, end-to-end framework that uses policies to manage traffic		
2	The Hub and Branch CPEs should have SD-WAN features and Layer 7 Firewall / Application Control features on the same appliance.		
3	The solution should offer flexible architectures: Hub-to-Spoke (partial mesh), spoke-to-spoke (dynamic full mesh), Multi-Hub, Multi-Region, & DIA (Direct Internet Access) / RIA (Remote Internet Access) for the branches		

4	The Hub and Edge/Branch CPE appliance should have the same OS and license features across its Hub and branch locations.		
5	The Hub and Edge/Branch CPE Appliance should have the hardware and software supplied by the same SDWAN Vendor and the TAC support for both hardware and software should be by the same SDWAN Vendor.		
6	All traffic processing components of the SD-WAN solutions should support High Availability (HA) wherever necessary and indicated		
7	If any of the features and Bandwidth listed in this RFP requires license, the licenses should be provided for all devices for the entire period of contract.		
8	The proposed solution should meet the minimum requirement of bandwidth along with future scalability		
9	The Hub and Edge/Branch Devices should be supplied with Advanced Security features like IPS, AntiMalware, AntiBotnet, and Malicious URL filtering and should support the requested bandwidth.		
10	All the device should be able to support Standards based IPsec (IKEv1 and IKEv2) connectivity with a third-party device already deployed in the Organisation's network.		
11	The device should be able to support Standards based IPsec (IKEv1 and IKEv2) connectivity from a Remote IPsec Endpoint PC/Laptop. Any licenses to be provided along with the solution.		
12	Should provide BGP attributes like Weight, Local Preference, Originate, AS Path Length, Origin Code, MED etc and other BGP features like Community tags.		
13	All the components of the SDWAN solution should be hosted On-premises. None of the Organization's Business data should go to the OEM Premises or Cloud under any reason (which includes logging & scanning for AntiMalware).		
14	SD WAN edge, Software, hardware and security features must be provided by same OEM. Centralized configuration,		
	monitoring and reporting module must be common for both security and SD WAN module.		
15	All licenses of the Branch CPE should be validated with Centralized Management / Orchestrator / Controller platform		
SD-WAN Specifications			
16	The SD-WAN solution should have multi-WAN underlay support (MPLS, DIA, Broadband, LTE, VSAT etc), multiple active-active Overlay tunnel support.		
17	The SD-WAN solution should have Intelligent WAN path control feature with ability to direct traffic among WAN links based on the actual applications (L7) and users/user groups by configuring Granular Application policies and Application SLA based path selection. Should support active/active and active/standby path forwarding.		

18	The solution should support around 5000+ application signatures to achieve application visibility for efficient SD-WAN packet steering.		
19	The solution should support configuring custom application signatures and use it for SDWAN Steering.		
20	The solution should support on-device SSL/TLS decryption, including decrypting TLS v1.3 traffic, to identify Custom applications based on its Layer 7 signatures and not based on IP address. This information should be used to successfully perform SDWAN steering of Custom HTTPS application traffic.		
21	The SD-WAN Multi-path intelligence using rules should be defined by the following parameters: - Source IP address - Source MAC address - Destination IP address, Route Tag, ToS - Selection of over 5,000+ applications, application groups and Application Category - Protocol and ToS bits - path selection using particular link quality criteria or SLAs defined		
22	Should support the following WAN load balancing algorithms: Bandwidth based, source-destination IP, Source IP, and round- robin.		
23	The solution should have the capability to measure application transactions (SLAs) such as latency, jitter, and packet-loss with built-in automatic fail-over to determine preferred paths and maintain the optimal application performance of business-critical applications.		
24	Should support Active SLA probes for multiple protocols like Ping, TCP/UDP echo and HTTP		
25	The Active Probe Check interval should be configurable as low as 20 ms so that it can help in seamless failover of real-time traffic like VoIP and Video Conferencing.		
26	The Performance SLAs fail, and pass events should be logged for long term analysis as well as monitored through REST API		
27	The solution should support Dynamic Forward Error Correction (FEC) for packet loss compensation on the overlay. The Error Correction packet size should automatically & progressively increase with increase in packet loss, so that the bandwidth is		
	conserved when there is less or no packet loss. It should have the capability of being selectively applied to a particular traffic. This is a remediation feature and is mandatory as some branches can have single links of LTE/VSAT which can have packet losses for prolonged period.		

28	The solution should support On-demand Packet duplication across two or more links to support uninterrupted, zero packet- loss transmission of real-time critical traffic. On-demand feature of Packet duplication ensures that it gets enabled only when the SLA fails on the selected link.		
29	The CPE device should support Traffic Shaping based on bandwidth limits per application, or per User, prioritize application traffic per WAN link, mark/re-mark DSCP bits for influencing traffic QoS on egress devices, application steering based on ToS marking, Differentiated Services (DiffServ) support and Weighted Random Early Detection (WRED) queuing mechanism.		
30	The solution should have the ability to apply Interface based Traffic Shaping based on percentage value (for eg: 60% for critical traffic and 40% for non-critical traffic), for both Ingress and Egress traffic of the Branch interface. It is pertinent that Ingress Interface based Traffic Shaping should work perfectly fine as this usually causes congestion.		
31	Critical & Non-critical traffic should be allocated traffic shaping rules based on the percentage of link bandwidth capacity of the branch. Traffic shaping should be applied only when the link is congested.		
32	The SD-WAN solution should support Static routing, Internal Gateway (iBGP, OSPF v2/v3 , RIP v2), External Gateway (eBGP), VRF, route redistribution, route leaking, BGP confederation, router reflectors, summarization and route-aggregation, route asymmetry		
33	In case of a change in WAN IP Address (Private/Public) the SD-WAN solution shall detect and rebuild the VPN tunnel without manual VPN configurations		
34	The solution should support advanced features of BGP like advertisement of multiple paths (RFC 7911) and adapt to changes in SD-WAN link SLAs like sending a different route-map to an upstream third-party BGP neighbour when IP SLA is not met		
35	SDWAN devices should support 802.1x		
36	The centralized management solution shall have NMS capabilities and shall support network wide device and network visibility for all the devices in the terminated on the devices irrespective of the type of link (MPLS, broadband, FTTH, ILL, SIM etc). The NMS solution shall have capabilities including but not limited to TCP dump, ping and traceroute. Device should be equipped with the features like Visualize in real-time, graphs and reports, WAN Link utilization, Detailed bandwidth usage of applications, Link wise WAN Link Latency, jitter and packet loss,		

	SLA monitoring, Appliance utilization, availability		
37	All types of alarms, Application performance monitoring. In case of performing any trouble shoot, the solution should have trouble tracking tools such as TCP dump, ping, traceroute etc.		
38	The solution shall store historical traffic and performance information for at least 3 months to assist with trouble analysis, traffic forecasting and SLA compliance. The solution shall have the capabilities to define, monitor and report SLA of the WAN links.		
39	The system shall automatically measure the link SLAs without any manual configuration on the devices		
40	The solution shall support email based alarm to notify the administrators when any device/link fault or network performance degradation happens.		
41	The solution should support end-to-end VRF based segmentation over a single overlay tunnel along with SDWAN based traffic steering and SLA management (multiple VRFs over a single overlay).		
42	The SD-WAN solution should support Branch-to-Branch On- demand Encrypted overlay tunnels – i.e. dynamic VPN tunnels between spoke locations. It is important that the branch-to- branch tunnels should be on-demand so that the resources would be minimally used when compared to the always-on full mesh tunnels. The branch-to-branch tunnels should automatically tear-down, when there is no traffic.		
43	These branch-to-branch tunnels should have automatic SLA tracking, which can help to fail-over to a different tunnel created on-demand over a different underlay, in case of occurrence of brownout condition.		
44	The solution should have the capability of forming multiple concurrent Branch-to-Branch tunnels between two field offices and should support various traffic steering strategies over these overlay tunnels, like active-standby, Best Quality and load balancing.		
45	The SD-WAN solution should support Multicast forwarding, PIM sparse (rfc 4601), dense mode (rfc 3973), PIM rendezvous point, with support for Multicast traffic based application steering		
46	The solution should support end-to-end IPv6 on both LAN, WAN and on the overlay.		
47	The solution should support identifying and steering IPv6 application		

48	It should also support Zero Touch Deployment of Branch CPE device Edge in a closed network using mechanisms like USB boot.		
49	The device should be managed and orchestrated with a Centralized Management / Orchestrator / Controller platform which have an option to be deployed as an On-prem VM or hardware appliance		
50	The Centralized Management / Orchestrator / Controller should be a single plane of glass solution to manage the SD-WAN and Security features, streamline provisioning and management, extensive automation-enabled management features and for Enhanced Analytics		
51	The edge devices should connect securely with the Centralized Management / Orchestration solution with Two-factor validation. The validation should be revoked on-demand for missing / lost CPE devices.		
52	The SD-WAN solution shall co-exist with non-SD-WAN sites on the any type of network with standard deployments topologies which may send traffic directly between the SD-WAN and Non-SD-WAN through routing protocols.		
NAT			
53	The SD-WAN solution shall support NAT and port forwarding of all LAN side prefixes.		
54	The SD-WAN solution shall support source NAT on location subnets to allow overlapping location subnet to communicate to the datacenter. Also, the solution shall support LAN side destination NAT for simplicity of redirecting traffic		
Advanced Security Specifications for Field Offices			
55	The SDWAN CPE Devices at Branches should have Basic Security features like Zone based Firewalls, Layer 7 based Firewall / Application Control, SSL Inspection and Advanced Security features like IPS, AntiMalware, AntiBotnet, and Malicious URL filtering. If these features require license, it should be provided for the complete period requested.		
56	The Firewall should support IP, FQDN, Device based, MAC based, and User/Group based policies		
57	Firewall Rules should support User/User-Group based policies which are obtained through integration with MS-AD, LDAP and RADIUS based Wireless Authentication server.		
58	Should have the facility to configure Firewall rules based on Geo IP Source or Destination		

59	The Devices should support retrieving External Block list for Domain Names, Web Filtering URLs, IP Address and Malware Hashes as an Object/Profile settings, which can be conveniently used in the Firewall policies. This helps in ingesting external IOCs in an easy way and blocking them on the Firewall policy.		
60	Should support IPv4 and IPv6 Rate based DOS protection with threshold settings		
61	The Hub CPE should have Hardware based DDoS Host Protection, which can mitigate DDoS attacks directed towards the appliance over the Hardware, without any impact to the CPU.		
62	The Firewall should detect 5000+ of applications over Layer 7 with the capability of Whitelisting / Blocking applications for certain hosts		
63	The Firewall should support of classifying applications based on the category they belong to (For e.g. VoIP, Video/Audio, Business, Remote Access etc.) from day one		
64	The Layer 7 Firewall should provide Custom application signature support		
65	Should support both TLS certificate only inspection as well as full TLS inspection of sessions, including TLS v1.3 sessions		
66	Should support TLS inspection exemption by site reputation DB, web categories, and/or policy addresses		
67	Should support SSL/TLS Inspection for Invalid, expired or untrusted certificate.		
68	Should support Botnet server IP based blocking with global IP reputation database. It should also support Botnet Domain based blocking to filter known "Fast flux" Botnet Domains		
69	Should support blocking known HTTPS based Botnet/Malware connections using fingerprint-based certificate blacklist.		
70	Enterprise-class URL filtering solution that has multiple categories of URLs and includes Malicious URL blocking, user overrides, local categories & category rating override and search engine keyword logging		
Operational Specifications			
71	All Operational components of the SDWAN solution should be hosted On-premises.		
72	Built-in Application Signatures for popular, standard On-premises applications used in SDWAN routing, should be automatically updated from the Central Management / Orchestrator / Controller to all Hub and Branch CPEs.		
73	The Application & Security signatures should be automatically downloaded by the Central Management / Orchestrator / Controller from the Vendor's Update server via an Internet Proxy connection.		

74	The solution should also have an option to download these signatures from the Vendor's site manually and upload it to the Central Management / Orchestrator / Controller		
75	The application & Security signature updates should have a frequency of less than a week.		
76	The Firmware / OS updates for the HUB and branch CPEs should be downloaded by the Central Management / Orchestrator / Controller from the Vendor's Update server via an Internet Proxy connection. The solution should also have an option to download these Firmware / OS updates from the Vendor's site manually and upload it to the Central Management / Orchestrator / Controller		
77	The Firmware / OS upgrades should be performed centrally from the Central Management / Orchestrator / Controller onto the CPE devices. There should be two options, On-demand upgrade or Scheduled upgrade.		
78	The Entire solution should support RESTful API based Configuration. Ansible, Terraform and Python should be supported for configuration and analytics.		
79	The Entire solution should support third-party integration like SNMPv2c, SNMPv3 AES-256, Syslog in CEF format, sFlow version 5 and Netflow V9.0.		
80	The following Remote Authentication protocols should be supported for logging in to the CPE device: - LDAP - RADIUS - TACACS+ - Two Factor Authentication		
81	The Solution should identify the different types of devices present on the Field Office network (Eg: Linux, Windows, MAC, network device etc.) with the Inbuilt Device Identification and fingerprinting feature		
82	Should support the following IPv6 features: Management over IPv6, IPv6 routing protocols, IPv6 tunneling, IPv6 based Application Steering (SDWAN), IPv6 Firewall, NAT46, NAT64, IPv6 IPsec VPN and Application Control for IPv6 traffic.		
83	The CPE devices should have a capability to run a CLI script to collect debug information (like top Processes and other info), and then email the results of the script to a specified email address when CPU/Memory usage threshold is exceeded.		
84	Should have a Packet Capture feature in both GUI and CLI with appropriate filter options, to view the packet's header and payload information. The Packet capture output from the GUI can be downloaded as a PCAP, which can be viewed with tools like WireShark		
85	The device should have automatic configuration revision feature (Automatically backing up the configuration on the inbuilt storage) on the device.		

86	The vendor should be able to demonstrate all the features requested in the RFP or partial list of features selected by the Organisation from the RFP in a satisfactory manner in the Organisation's environment. This PoC demonstration would be mandatory as part of the Technical Evaluation of bids.		
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Item no 1 & item no 7 of BOQ

2	Shall have adequate memory, CPU etc. so that the utilization does not normally exceed 60% or impacting performance of the device while running all the functionalities. In case augmentation in any component is required, the same shall be done without any additional cost		
2	Should provision SD-WAN CPE Devices from a single console across the WAN network using templates		
3	Should perform enhanced SD-WAN monitoring for each SD- WAN link member with visibility of link status, application performance, bandwidth utilization. The SLA targets should be included in performance monitoring graphs for each WAN provider.		
4	It should have a Geo Map which shows placement of Hub and Spokes along with the color-coded overlay connectivity between them based on their health check status		
5	Centralized Management / Orchestration / Controller should have the feature of implementing global policies and Global objects, to be distributed among all NGFW feature of SDWAN Edge devices		
6	It should support downloading Essential updates (Application Signature Updates) & Security Updates (Antivirus definition updates, IPS updates, Geo DB Updates, IP Reputation updates and Web Filtering updates) from day 1 and supply them to the SDWAN CPE appliances.		
7	Should leverage automated REST API, scripts, connectors		
8	It also should have automatic configuration revision feature (Automatically backing up the configuration of SDWAN Edge devices, if there is a change)		
9	Should support HTML5 based Web UI and/or CLI		
10	The Web UI should have provision to restrict Admin access from certain IP and not from all IPs.		
11	Real time SDWAN Monitoring Dashboard should retain historical information for 180 Days, shall have traffic forecasting and SLA compliance. The solution shall have capabilities to define, monitor and report SLA of the WAN links. The solution shall support syslog export directly from the SDWAN edge devices		

12	Should be quoted and implemented in Geo-Redundant HA with one unit in DC and other in DR		
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Item No. 2 & Item no. 8 of BoQ

SDWAN HEADEND/HUB/GATEWAY DEVICE AT DC AND DR

The main requirement for the SD-WAN Headend/Hub/Gateway device is as follows:

- Positioned at the Data Centre of KSEB
- Terminates multiple MPLS/Internet circuits from different providers.
- Aggregates all SD-WAN Tunnels (Overlays) from various Field Offices – scalable to accommodate a total of 2000 Field Offices in future.
- Should be quoted in High Availability
- High Port density with support of 1 Gig and 10 Gig interfaces.

It should comply with the parameters mentioned below:

Specifications for SDWAN Headend/Hub/Gateway Device			
Sl No	Features/Specifications	Compliance Yes/No	Remarks
Performance & Scalability Specifications			
1	The SD WAN Hub device should have 10 Gbps of encrypted (IPSec) Traffic Throughput right from Day 1. The required throughput requirement must be achieved using single appliance.		
2	Should support termination of overlay tunnels up to 2000 Field Offices from Day one and scalable to 3000 Field Offices		
3	Should have basic Security features like Zone-based firewall, Layer 7 Firewall/Application control and DoS functionality without incurring any hardware upgrade.		
4	DoS Module must be customizable to protect against Denial of Service (DOS) and DDOS attacks. Should have flexibility to configure IPv4 and IPv6 Rate based DOS protection with threshold settings against TCP Syn flood, TCP/UDP/ port scan, ICMP sweep, TCP/UDP/ SCTP/ICMP session flooding. Threshold settings must be customizable for different sources, destinations & services		
Hardware Specifications			

5	Device shall have a minimum of 6x1/10 Gig SFP+ slots with no restriction on which ports can be used for LAN or WAN. Hub devices shall have dedicated 1 X 1G RJ-45 mgmt port. Devices should be fully populated with 10G SFPs		
6	Each device should have dedicated 1 GE RJ45 Port for Management		
7	The device is to be quoted in High Availability with required licenses and identical features on both units		
8	The device should have dual Redundant, Hot- swappable Power supply		
9	The hardware should have secure crypto processor/TPM for securely storing cryptographic keys		
10	Device shall support 16 VRF segments for End to End Segmentation of traffic		
11	The device shall be able to support a min of 10 WAN links as part of SDWAN overlay		
12	Shall support Generic Routing Encapsulation (GRE), IPSec, Ethernet 801.1Q, VLAN, VxLAN		

Item No. 3 of BoQ

MONITORING, DASHBOARD, REPORTING & ANALYTICS SERVICE

The main objective of the Centralized Analytics solution is to have:

- High logs/sec capacity and High storage capacity for log retention for upto 6 months
- Virtual Machine (VM) based platform supporting leading industry standard hypervisors.
- Support parsing of logs from all SDWAN CPE HUB and Edge devices quoted in this RFP
- Automated Correlation capabilities

Specifications for Monitoring, Dashboard, Reporting & Analytics Service			
SI No	Features/Specifications	Complied Yes/No	Remarks
Performance Specifications			
1	The Analytics appliance should retain all the logs(All the traffic, security and events) for 180 days after which it should upload the logs for long term archival.		

2	It should support concurrent logging from up to 1500 SDWAN CPE devices and Data Centre Internet Security from day one and it must be scalable to 2000 devices.		
3	It should have a mechanism like FTP, SFTP of exporting archived logs for long-time storage		
Hardware Specifications			
4	The Centralized Analytics platform can be Physical appliance, Virtual Appliance or Software based. In case of a software option, the OS and hardware needs to be bundled along.		
5	The device should have dual Redundant, Hot-swappable Power supplies		
Technical Specifications			
6	The Analyzer should provide Powerful Network Security Visibility with customizable interactive Dashboard and summary views		
7	It should have Drill-down capabilities to follow the trail of a user session, trace transactions, and gain new insights		
8	It should provide superior Visualization with graphical bubble charts, and a geographical Threat Map		
9	Should have log search capabilities based on Usernames, IP, service, Applications etc		
10	Should have Automated Correlation Engine to identify suspicious traffic pattern and present a prioritized list of hosts which are compromised		
11	Should have built-in report templates, which are highly customizable		
12	Should have the facility to create custom reports with intuitive chart builder		
13	Run report on-demand or on a schedule with automated email being sent (in HTML and PDF format) to a list of users. PDF based reporting should be generated by the system automatically without any manual intervention, each time the report is generated.		
14	Should have Automated alert notification for issues, problems and attacks		
15	Should leverage automation via REST API, scripts, connectors, and automation stitches to expedite network and security response		
16	Should have automated Storage Quota management based on defined policy.		
17	It should have a NOC / SOC view which provides centralized monitoring and awareness of the link outages, threats, events and network/mail activity, with predefined and customized dashboards.		

18	The solution should support Out-of-the-box playbook templates for enabling SOC analysts to quickly customize the use case, including playbooks for investigation of infections, compromised hosts, critical incidents, data enrichment for viewing Assets and Identity blocking of malware, C&C IPs		
19	The solution must have predefined MITRE ATT&CK dashboard to review security incident and event based on MITRE ATT&CK matrices		
20	The solution must automatically create incidents when an outbreak is detected		
21	It should have the feature to forward logs from itself to a third- party syslog server, a Common Event Format (CEF) server or a SIEM solution.		
22	The Centralized logging and Reporting appliance should be able to parse, correlate logs and generate reports for all the appliance supplied along with this solution like the SDWAN Headend/HUB, SDWAN Edge CPE etc.		
23	The SD-WAN solution should provide Enhanced Analytics of Bandwidth consumption, SLA metrics – jitter, packet loss, and latency, real-time monitoring, filter based on time slot, WAN link SLA reports, per-application session usage, threat information - malware signature, malware domain or URL, infected host, threat level, malware category and indicator of compromise.		
24	- Central management system should support below monitoring capabilities both in real-time and historically. - Top talkers. Identify which applications are using the most bandwidth across the WAN - Bandwidth Utilization. Observe the total amount of bandwidth being utilized for both optimized and unoptimized - Network performance. The measure (in packets per second) the performance being achieved across the WAN for both optimized and non-optimized - Flow count. Track the number of TCP and UDP flows generated across the WAN for both optimized and unoptimized - Latency. Measure average and peak latency in real-time. Drill down into the portions of the WAN with the highest latency - Packet Loss. Measure average and peak packet loss in real-time, in aggregate and on individual WAN connections. Observe the impact of Path Conditioning features - Flow data. Showing real-time user flow information for troubleshooting		

	- Live tunnel view to show how various transports are being using by application policies Central Dashboard - The dashboards mentioned in this RFP should have the capability to drill down to granular level by clicking on the respective elements as follows: Assuming there are 25 devices with link down. The Dashboard should have the capability to drill down at granular level to identify which TSP link went down for which location, at what point of time - The proposed SDWAN dashboard solution should have visibility of all other SDWAN components/elements deployed across all the data center.		
	- The Dashboard should be able to display the current load on headend devices across DC/DR in GUI. - The reporting module of the proposed solution should provide monitoring dashboard to provide information such as - Number of successful/ failed configuration push/ pull to/ from edge devices. - Number of edge devices deployed per OS version group-wise. - All the above options should be available with further drill-down and with information i.e., IP address, location, hostname, etc. - For dashboards/ reporting, the necessary capacity planning like disk IOPS, SSD, RAM, etc. shall be done by the bidder. Any performance enhancement required to achieve the above-mentioned requirements shall be provided by the bidder at no additional cost during the whole contract period. - The dashboard of proposed SDWAN solution should populate details pertaining to authenticated, unauthenticated (rogue device trying to register), offline and online headend and branch-end devices. - The dashboard of proposed SDWAN solution should support a near real-time automated alerting mechanism and alerts can be forwarded to another monitoring tools using SNMP traps, syslog and API etc. - The alerts should be sent to users or admins through email. Branch Devices: - The dashboard of the proposed solution should be capable of doing near real-time monitoring of all the links in GUI with respect to the following (but not limited to) parameters: - Packet loss - Jitter - Link errors - Bandwidth utilization - Latency - Duplex, Speed - The Dashboard of the proposed solution should be capable of displaying		

	data over the customized period pertaining to : • Top 20 users by bandwidth utilization. • Top 20 Applications by bandwidth utilization. • The Proposed SDWAN solution should have monitoring dashboard to provide application-wise and user-wise utilization according to the customizable time period in various graphical formats like Pie chart, bar graph, etc. • The proposed SDWAN solution should provide monitoring dashboard for applied per class of service		
	bandwidth utilization as per the configured Quality of Service in forward and reverse direction in GUI. • Solution should be able to display real-time in per second graphical representation of bandwidth utilization, latency, loss, jitter across all locations		

Item No. 4 & Item no. 9 of BoQ

WAN AGGREGATION SWITCH AT DC AND DR

WAN Aggregation Switches - 24 x 1Gbps Ports, 4 x 10Gbps uplink Ports, Redundant Power supply, with stackable and SFP+ modules

S.No	Specification	Compliance (Yes/No)
	Architecture	
1	The switch should be Rack Mountable and should have 24 x 10/100/1000 BASE-T ports and 4 x 1/10 Gbps SFP+ ports with modules	
2	Switch must have two field-replaceable and hot- swappable power supply loaded from day one. The switch should have 1x USB-C Console Port, 1x OOBM and 1x USB Type A Host and 8 MB Packet buffer size, Switch must support 32K MAC address	
3	The switch should support front plane stacking on uplink port or Backplane stacking and should have Stacking Performance of minimum 200 Gbps. The switch should support minimum 4 switch in stack. Stacking cable shall be supplied along with the Switch, if required.	
4	The proposed switch should have minimum 64,000 Ipv4 Unicast Routes, Since it's deploy in WAN aggregation it must have capable of Ipv6 Unicast Routes for future requirement. Min 8K IPv4 & IPv6 Multicast Routes, IPv4/IPv6/MAC ACL Entries (Ingress) 5000/1250/5000 and Ipv4/Ipv6/MAC ACL Entries (Egress) 2000/500/2000	
5	The switch should have 448Gbps of Switching Capacity and 330 Mpps Throughput Capacity	
6	The Switch should support Virtual Router Redundancy Protocol (VRRP) to allow groups of two routers to dynamically create highly available routed environments in IPV4 and IPV6 networks	
7	The Switch should support Uni-directional Link Detection (UDLD) to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops in STP- based networks	

8	The Switch should support IEEE 802.3ad LACP supports up to 100 LAGs, each with up to 8 links per LAG and provide support for static or dynamic groups and a user-selectable hashing algorithm	
9	The Switch should support IEEE 802.1s Multiple Spanning Tree provides high link availability in VLAN environments where multiple spanning trees are required and legacy support for IEEE 802.1d and IEEE 802.1w	
	IPv6 feature	
10	IPv6 host enables switches to be managed in an IPv6 network	
11	Dual stack (IPv4 and IPv6) transitions from IPv4 to IPv6, supporting connectivity for both protocols	
12	MLD snooping forwards IPv6 multicast traffic to the appropriate interface	
13	IPv6 ACL/QoS supports ACL and QoS for IPv6 network traffic	
S.No	Specification	Compliance (Yes/No)
14	IPv6 routing supports Static and OSPFv3 protocols	
15	RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping	
	Management	
16	The Switch should support Built-in programmable and easy to use REST API interface	
17	The Switch should support any 3rd party NMS.	
18	The Switch should support Zero-Touch Provisioning (ZTP) simplifies installation of switching infrastructure using DHCP-based	
19	The Switch should have Scalable ASIC-based wire speed network monitoring and accounting with no impact on network performance.	
20	The Switch should support Industry-standard CLI with a hierarchical structure	
21	The Switch should support Management security restricts access to critical configuration commands, provides multiple privilege levels with password protection, and local and remote syslog capabilities allow logging of all access	
22	The Switch should support SNMP v2c/v3 provides SNMP read and trap support of industry standard Management Information Base (MIB), and private extensions sFlow (RFC 3176)	
23	The Switch should support TFTP and SFTP support offers different mechanisms for configuration updates; and NTP, LLDP	
24	The Switch should support Dual flash images provides independent primary and secondary operating system files for backup while upgrading	
25	The Switch should support Ingress and egress port monitoring enable more efficient network problem solving	
26	The Switch should support IP SLA for Voice monitors quality of voice traffic using the UDP Jitter and UDP Jitter for VoIP tests	
	Multicast	
27	The Switch should support IGMP Snooping, MLD, PIM and PIM SM and DM for both IPv4 and V6	
28	The Switch should support Multicast Service Discovery Protocol (MSDP) to efficiently routes multicast traffic through core networks	
	Layer 2 & 3 Features	
29	The Switch should support VLAN and tagging for IEEE 802.1Q (4094 VLAN IDs), Jumbo packets upto 9198 Bytes	
30	The Switch should support RVPST+, MVRP, BPDU tunnel to transmits STP	

	BPDUs transparently	
31	The Switch should support Port mirroring duplicates port traffic (ingress and egress) to a monitoring port; and support minimum 4 mirroring groups	
32	The Switch should support STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	
33	The Switch should support Border Gateway Protocol (BGP) provides IPv4 and IPv6 routing. Since it's deploying in WAN aggregation we must require the BGP peering between WAN to LAN.	
34	The Switch should support Multi-protocol BGP (MP-BGP) enables sharing of IPv6 routes using BGP and connections to BGP peers using IPv6 and OSPF v2 and v3 (Both) and static routing	
35	The Switch should support Policy-based routing and used as a classifier to select traffic that can be forwarded based on policy set by the network administrator for WAN aggregations	
S.No	Specification	Compliance (Yes/No)
36	The Switch should support Dual IP stack to maintain separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design	
	Security	
37	The Switch should support integrated trusted platform module (TPM) for platform integrity. This ensure the boot process started from a trusted combination of switches.	
38	The Switch should support Access control list (ACL) support for both IPv4 and IPv6 to allow for filtering traffic to prevent unauthorized users from accessing the network.	
39	The Switch should support ACLs filtering based on the IP field, source/ destination IP address/subnet, and source/ destination TCP/UDP port number on a per-VLAN or per-port basis	
40	The Switch should support Remote Authentication Dial-In User Service (RADIUS) and TACACS+	
41	The Switch should support multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards	
42	The Switch should support Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications	
43	The Switch should support DHCP protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks	
44	The Switch should support Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3	
45	The Switch should support Switch CPU protection to provide automatic protection against malicious network traffic trying to shut down the switch	
46	The Switch should support Source-port filtering to allow only specified ports to communicate with each other	
47	The Switch should support Secure Sockets Layer (SSL) to encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch	
48	The Switch should support Management Interface Wizard to help secure management interfaces such as SNMP, telnet/SSH, SSL, Web.	
49	The Switch should support Security banner displays a customized security policy when users log in to the switch	

	Certification	
50	EN 60950-1, EC 60950-1, EN 61000, EN 60825 or equivalent standard Certifications as per Indian Std.	

Item No. 11 & 12 of BoQ

SDWAN EDGE/BRANCH/CPE ROUTER

Specifications for Small SD-WAN Edge/Branch/CPE Router			
SI No	Features/Specifications	Compliance Yes/No	Remarks
Performance Specifications			
1	The device should have 300 Mbps of Traffic Throughput (in each direction) with Encryption and with logging enabled, right from Day 1 and scalable to 500 Mbps by upgrading license. This throughput should be supported for SDWAN to the HUB and with complete security features enabled.		
2	Should support up to 100 overlay tunnels.		
3	Device shall support QoS on physical and sub interface, NAT, DHCP		
4	Device shall support Radius, LDAP and/or TACACS+, SSHv2, SNMPv3 and/or Telemetry, Syslog, NTP		
5	Device shall support deep packet inspection to identify applications and shall able to apply QoS based on application		
6	Device should be rack mountable at field offices		
7	Device shall support ILL, MPLS, Broad band, LTE		
8	Hardware and software both should be from same OEM		
9	Should have all the security features described in Advanced Security Specifications such as Zone-based firewall, Layer 7 Firewall/Application control and SSL/TLS Inspection along with Advanced Security features like IPS, AntiMalware, AntiBotnet and Malicious Web filtering with a license, without incurring any hardware upgrade.		
10	Shall be capable to support following routing protocols, IPv4, IPv6 static routes, Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), Dynamic Host Configuration Protocol (DHCP), (VRRP), RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC) or equivalent, IPsec		
Hardware Specifications			
11	The device should have 5 x 1G RJ45 ports and any port can be configured as WAN or LAN port. There should not be any restriction of running dynamic routing on any of these ports		

12	The hardware should have secure crypto processor/TPM for securely storing cryptographic keys		
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Item No. 13 of BoQ

LAYER-2 SWITCH FOR FIELD OFFICES

24 x 1Gbps RJ45 Ports, 4 x 1Gbps SFP ports

S/N	Features/Specifications	Compliance Yes/No	Remarks
	General Requirements		
1	Manageable switch should have minimum 24x 10/100/1000BASE-T Ports and 4x 1G SFP ports		
2	Proposed switch should have a dedicated Serial console port (RJ-45 /USB)		
3	The switch should have 56 Gbps of Switching Capacity and 41 Mpps Throughput Capacity.		
4	Proposed Switch should support minimum 8K MAC address		
5	Proposed switch should support 1000 VLANs		
6	Should support min DRAM-512 MB DDR3		
	Layer 2 Requirements		
7	The Switch should support frame size of up to 9198 bytes		
8	Should support Spanning Tree Protocol MSTP and RTSP, STP and STP Root & BPDU Guard		
9	IEEE 802.1AX / IEEE 802.1AD Link Aggregation		
10	IEEE 802.1q VLAN tagging, IEEE 802.1ab Link Layer Discovery Protocol (LLDP).		
11	should support Unicast/Multicast traffic balance over trunking		
12	Should support IEEE 802.3x Flow Control and Back-pressure, IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3z , 1000Base-SX/LX, IEEE 802.3ab 1000Base-T		
	Authentication Requirements		
13	Should support 802.1x port-based authentication		
14	Should support 802.1x MAC-based authentication, IEEE 802.1x MAC Access Bypass (MAB)		
15	Should support IEEE 802.1x Guest and Fallback VLAN		
16	Switch should support local user database and can integrate with LDAP, RADIUS, TACACS+ servers		
17	The Switch should support integrated trusted platform module (TPM) for platform integrity. This ensure the boot process started from a trusted combination of switches.		
	Management		
19	Should support SSH, HTTPS with IPv4 and IPv6 Management		
20	Switch should support SNMP v2c and v3		
21	Software download/upload: TFTP/SFTP/GUI		
22	Proposed switch should be managed via both, GUI, CLI and manage via any standard NMS		
	Central Management		

23	Should support centralized security management, configuration and reporting through a single console from switch controller or from external NMS		
	Certifications		
25	EN 60950-1/IEC 60950-1, EN 60825 CAN/CSA C22.2 No. 60950, UL 60950-1 or standard Equivalent for the above		

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

ANNEXURE 8

PRICE BID

To be uploaded as pdf (On Organization Letter Head)

EOI NO. RCIL/SR/ERS/2025-26/EOI/01 DTD. 11-04-2025

To,

The Joint General Manager (ERS)

RailTel Corporation India Limited,

Kerala Territory Office,

1st Floor, Eastern Entry Tower

Ernakulam South Railway Station

Ernakulam – 682016

TENDER NO: CEIT/ITCSD/15/2024-25 dated 28.12.2024

The RFP published by KSEBL for the work vide CEIT/ITCSD/15/2024-25 dated 28.12.2024 as circulated March please be referred for any clarifications. **The submission of EMD, PBG, SD and Agreement with RCIL Non-Judicial paper by the selected Bidder will be sacrosanct selected Bidder.**

BOQ 1

Sl. No.	Item description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder in Rs. P	Unit GST Rate in Rs. P	Total GST Amount in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT in Words
1	2	4	5	13	14	15	53	54	55
1	Data Centre								
1.100	SDWAN Controller/Orchestrator/Manager	1.00	Nos			0	0	0	
1.101	SDWAN Headend/Hub/Gateway Device	2.00	Nos			0	0	0	
1.102	Monitoring , Dashboard, Reporting & Analytics service	1.00	Nos			0	0	0	

1.10 3	WAN Aggregation Switch - 24 x 1Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2.00	Nos			0	0	0	
1.10 4	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the Data Centre.	1.00	Nos			0	0	0	
1.10 5	Man power charges (L2/L3 resource) for one year at Data Centre	1.00	Nos			0	0	0	
2	DR Centre								
2.10 0	SDWAN Controller/Orchestrator/Manager	1.00	Nos			0	0	0	
2.10 1	SDWAN Headend/Hub/Gateway Device	2.00	Nos			0	0	0	
2.10 2	WAN Aggregation Switch - 24 x 1Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2.00	Nos			0	0	0	
2.10 3	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the DR Centre.	1.00	Nos			0	0	0	
3	Field Offices								
3.10 0	SDWAN Edge/Branch Router for field offices	890.00	Nos			0	0	0	
3.10 1	SDWAN Edge/Branch Router - Spare	50.00	Nos			0	0	0	
3.10 2	Layer-2 Switch for field offices - 24 x 1Gbps Copper Ports, 4 x 1Gbps SFP ports	890.00	Nos			0	0	0	
3.10 3	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software	300.00	Nos			0	0	0	

	components in the field office								
Total in Figures							0	0	
Quoted Rate in Words									

BOQ 2

SI No.	Item description	Quantity	Units	BASIC RATE for Extended Warranty for the 6th and 7th year together (Excluding GST)in Figures To be entered by the Bidder in Rs. P	Unit GST Rate for Extended warranty of 6th & 7th year in Rs. P	Total GST Amount in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT in Words
1	2	4	5	13	14	15	53	54	55
1	Data Centre								
1.100	SDWAN Controller/Orchestrator/Manager	1.00	Nos			0	0	0	
1.101	SDWAN Headend/Hub/Gateway Device	2.00	Nos			0	0	0	
1.102	Monitoring , Dashboard, Reporting & Analytics service	1.00	Nos			0	0	0	
1.103	WAN Aggregation Switch - 24 x 1Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2.00	Nos			0	0	0	

2	DR Centre								
2.100	SDWAN Controller/Orchestrator/Manager	1.00	Nos			0	0	0	
2.101	SDWAN Headend/Hub/Gateway Device	2.00	Nos			0	0	0	
2.102	WAN Aggregation Switch - 24 x 1Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2.00	Nos			0	0	0	
3	Field Offices								
3.100	SDWAN Edge/Branch Router for field offices	890.00	Nos			0	0	0	
3.101	SDWAN Edge/Branch Router - Spare	50.00	Nos			0	0	0	
3.102	Layer-2 Switch for field offices - 24 x 1Gbps Copper Ports, 4 x 1Gbps SFP ports	890.00	Nos			0	0	0	
Total in Figures							0	0	
Quoted Rate in Words									

BOQ 3

SI No.	Item description	Quantity	Units	BASIC Rate in Figures To be entered by the Bidder in Rs. P	Unit GST Amount in Rs. P	Total GST Amount in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	14	15	53	54	55
1	Additional Items								

1.10 0	SDWAN Edge/Branch Router with required license	400.00	Nos			0	0	0	
1.10 1	Layer-2 Switch for field offices - 24 x 1Gbps Copper Ports, 4 x 1Gbps SFP ports	50.00	Nos			0	0	0	
Total in Figures							0	0	
Quoted Rate in Words									

BOQ 4

Sl. No.	Item description	Quantit y	Unit s	BASIC RATE in Figures To be entered by the Bidder in Rs. P	Total GST Amount @ 18% GST in Rs. P	TOTAL AMOUN T Without Taxes in Rs. P	TOTAL AMOUN T With Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	13	15	53	54	55
1	Additional Items							
1.10 0	MPLS Router - HP A- MSR 3020 Router	846.00	Nos		0	0	0	
1.10 1	MPLS Router - HPE- MSR 1002 4AC	31.00	Nos		0	0	0	

1.10 2	Layer II Switch - HP 3600 - 24 - 24 x 1Gbps RJ45 Ports	400.00	Nos		0	0	0
Total in Figures						0	0
Quoted Rate in Words							

BOQ 5

Sl. No.	Item Description	Total Amount in Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT including GST in Rs. P	TOTAL AMOUNT In Words
1	2	13	54	55
1	Total of BoQ 1			
2	Total of BoQ 2			
3	Total of BoQ 3			
4	Less Buy Back Cost - Total of BoQ 4			
Total in Figures				
Quoted Rate in Words				

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.8 ANNEXURE 9**PROFORMA FOR PERFORMANCE BANK GUARANTEE**

(On Stamp Paper of ₹ Two Hundred/requisite value)

To,

The Joint General Manager (ERS)

RailTel Corporation India Limited,

Kerala Territory Office,

1st Floor, Eastern Entry Tower

Ernakulam South Railway Station

Ernakulam – 682016

Ref. No.: CEIT/ITCSD/15/2024-25 dated 28.12.2024; latest amendment/ Corrigendum clarifications. Floated on etender Kerala Portal (<https://etenders.kerala.gov.in/>)

In consideration of the RailTel Corporation of India Limited (CIN: L64202DL2000GOI107905), 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 (Herein after 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.

1. 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).
2. 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.

3. 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 and 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 beforeWe shall be discharged from all liability under this Guarantee thereafter.

4. 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 anytime 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 effect of so relieving us.

This Guarantee will not be discharge due to the change in the constitution of the Bank or the Contract or (..... 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 2024 for (Name of Bank) In the presence of Witnesses:

1. Signature with Date & Name

2. Signature With Date & Name

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

33.9 ANNEXURE 10

NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement (this “Agreement”) is made and entered into on this ____ day of, 2021 (the “Effective Date”) at by and between RailTel Corporation of India Limited, (CIN: L64202DL2000GOI107905), a Public Sector Undertaking under Ministry of Railways, Govt. of India, having its registered and corporate office at Plate-A, 6th Floor, Office Block, Tower-2, East Kidwai Nagar, New Delhi-110023 & Southern Region office at 1-10-39 to 44, 6A, 6th Floor, Gumidelli Towers, Begumpet Airport Road, Opp. Shoppers Stop, Hyderabad- 500016, (hereinafter referred to as 'RailTel'), which expression shall unless repugnant to the context or meaning thereof, deem to mean and include its successors and its permitted assignees of the ONE PART, and) (CIN: _____), a company duly incorporated under the provisions of Companies Act, having its registered office at , (hereinafter referred to as ' '), which expression shall unless repugnant to the context or meaning thereof, deem to mean and include its successors and its permitted assignees of OTHER PART RailTel and _____ shall be individually referred to as “Party” and jointly as “Parties” WHEREAS, RailTel and _____, each possesses confidential and proprietary information related to its business activities, including, but not limited to, that information designated as confidential or proprietary under Section 2 of this Agreement, as well as technical and non- technical information, patents, copyrights, trade secrets, know-how, financial data, design details and specifications, engineering, business and marketing strategies and plans, forecasts or plans, pricing strategies, formulas, procurement requirements, vendor and customer lists, inventions, techniques, sketches, drawings, models, processes, apparatus, equipment, algorithms, software programs, software source documents, product designs and the like, and third party confidential information (collectively, the “Information”); WHEREAS, the Parties have initiated discussions regarding a possible business relationship for WHEREAS, each Party accordingly desires to disclose certain Information (each Party, in such disclosing capacity, the “Disclosing Party”) to the other Party (each Party, in such receiving capacity, the “Receiving Party”) subject to the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the receipt of certain Information, and the mutual promises made in this Agreement, the Parties, intending to be legally bound, hereby agree as follows:

1. Permitted Use.

(a) Receiving Party shall:

- (i) hold all Information received from Disclosing Party in confidence;
 - (ii) use such Information for the purpose of evaluating the possibility of entering into a commercial arrangement between the Parties concerning such Information; and
 - (iii) restrict disclosure of such Information to those of Receiving Party’s officers, directors, employees, affiliates, advisors, agents and consultants (collectively, the “Representatives”) who the Receiving Party, in its reasonable discretion, deems need to know such Information, and are bound by the terms and conditions of (1) this Agreement, or (2) an agreement with terms and conditions substantially similar to those set forth in this Agreement.
- (b) The restrictions on Receiving Party’s use and disclosure of Information as set forth above shall not apply to any Information that Receiving Party can demonstrate:
- (i) is wholly and independently developed by Receiving Party without the use of Information of Disclosing Party;
 - (ii) at the time of disclosure to Receiving Party, was either (A) in the public domain, or (B) known to Receiving Party;
 - (iii) is approved for release by written authorization of Disclosing Party; or

- (iv) is disclosed in response to a valid order of a court or other governmental body in the India or any political subdivision thereof, but only to the extent of, and for the purposes set forth in, such order; provided, however, that Receiving Party shall first and immediately notify Disclosing Party in writing of the order and permit Disclosing Party to seek an appropriate protective order.
- (c) Both parties further agree to exercise the same degree of care that it exercises to protect its own Confidential Information of a like nature from unauthorized disclosure, but in no event shall a less than reasonable degree of care be exercised by either party.

2. Designation.

(a) Information shall be deemed confidential and proprietary and subject to the restrictions of this Agreement if, when provided in:

- (i) written or other tangible form, such Information is clearly marked as proprietary or confidential when disclosed to Receiving Party; or
- (ii) oral or other intangible form, such Information is identified as confidential or proprietary at the time of disclosure.

3. Cooperation. Receiving Party will immediately give notice to Disclosing Party of any unauthorized use or disclosure of the Information of Disclosing Party.

4. Ownership of Information. All Information remains the property of Disclosing Party and no license or other rights to such Information is granted or implied hereby. Notwithstanding the foregoing, Disclosing Party understands that Receiving Party may currently or in the future be developing information internally, or receiving information from other parties that may be similar to Information of the Disclosing Party. Notwithstanding anything to the contrary, nothing in this Agreement will be construed as a representation or inference that Receiving Party will not develop products, or have products developed for it, that, without violation of this Agreement, compete with the products or systems contemplated by Disclosing Party's Information.

5. No Obligation. Neither this Agreement nor the disclosure or receipt of Information hereunder shall be construed as creating any obligation of a Party to furnish Information to the other Party or to enter into any agreement, venture or relationship with the other Party.

6. Return or Destruction of Information.

(a) All Information shall remain the sole property of Disclosing Party and all materials containing any such Information (including all copies made by Receiving Party) and its Representatives shall be returned or destroyed by Receiving Party immediately upon the earlier of:

- (i) termination of this Agreement;
- (ii) expiration of this Agreement; or
- (iii) Receiving Party's determination that it no longer has a need for such Information.

(b) Upon request of Disclosing Party, Receiving Party shall certify in writing that all Information received by Receiving Party (including all copies thereof) and all materials containing such Information (including all copies thereof have been destroyed.

7. Injunctive Relief: Without prejudice to any other rights or remedies that a party may have, each party acknowledges and agrees that damages alone may not be an adequate remedy for any breach of this Agreement,

and that a party shall be entitled to seek the remedies of injunction, specific performance and/or any other equitable relief for any threatened or actual breach of this Agreement.

8. Notice.

(a) Any notice required or permitted by this Agreement shall be in writing and shall be delivered as follows, with notice deemed given as indicated:

- (i) by personal delivery, when delivered personally;
- (ii) by overnight courier, upon written verification of receipt; or
- (iii) by certified or registered mail with return receipt requested, upon verification of receipt.

(b) Notice shall be sent to the following addresses or such other address as either Party specifies in writing.

RailTel Corporation of India limited:

Attn:

Address:

Phone:

Email:

9. Term, Termination and Survivability.

(a) Unless terminated earlier in accordance with the provisions of this agreement, this Agreement shall be in full force and effect for a period of years from the effective date hereof.

(b) Each party reserves the right in its sole and absolute discretion to terminate this Agreement by giving the other party not less than 30 days' written notice of such termination.

(c) Notwithstanding the foregoing clause 9(a) and 9 (b), Receiving Party agrees that its obligations, shall:

- (i) In respect to Information provided to it during the Term of this agreement, shall survive and continue even after the expiry of the term or termination of this agreement; and
- (ii) not apply to any materials or information disclosed to it thereafter.

10. Governing Law and Jurisdiction. This Agreement shall be governed in all respects solely and exclusively by the laws of India without regard to its conflicts of law principles. The Parties hereto expressly consent and submit themselves to the jurisdiction of the courts of New Delhi.

11. Counterparts. This agreement is executed in duplicate, each of which shall be deemed to be the original and both when taken together shall be deemed to form a single agreement

12. No Definitive Transaction. The Parties hereto understand and agree that no contractor agreement with respect to any aspect of a potential transaction between the Parties shall be deemed to exist unless and until a definitive written agreement providing for such aspect of the transaction has been executed by a duly authorized representative of each Party and duly delivered to the other Party (a "Final Agreement"), and the

Parties hereby waive, in advance, any claims in connection with a possible transaction unless and until the Parties have entered into a Final Agreement.

13. Settlement of Disputes:

(a) The parties shall, at the first instance, attempt to resolve through good faith negotiation and consultation, any difference, conflict or question arising between the parties hereto relating to or concerning or arising out of or in connection with this agreement, and such negotiation or consultation shall begin promptly after a Party has delivered to another Party a written request for such consultation.

b) In the event of any dispute, difference, conflict or question arising between the parties hereto, relating to or concerning or arising out of or in connection with this agreement, is not settled through good faith negotiation or consultation, the same shall be referred to arbitration by a sole arbitrator

14. The sole arbitrator shall be appointed by CIAL/RailTel out of the panel of independent arbitrators maintained by RailTel, having expertise in their respective domains. The seat and the venue of arbitration shall be New Delhi. The arbitration proceedings shall be in accordance with the provision of the Arbitration and Conciliation Act 1996 and any other statutory amendments or modifications thereof. The decision of arbitrator shall be final and binding on both parties. The arbitration proceedings shall be conducted in English Language. The fees and cost of arbitration shall be borne equally between the part.

15. CONFIDENTIALITY OF NEGOTIATIONS

Without the Disclosing Party's prior written consent, the Receiving Party shall not disclose to any Person who is not a Representative of the Receiving Party the fact that Confidential Information has been made available to the Receiving Party or that it has inspected any portion of the Confidential Information or that discussions between the Parties may be taking place.

16. REPRESENTATION

The Receiving Party acknowledges that the Disclosing Party makes no representation or warranty as to the accuracy or completeness of any of the Confidential Information furnished by or on its behalf. Nothing in this clause operates to limit or exclude any liability for fraudulent misrepresentation.

17. ASSIGNMENT

Neither this Agreement nor any of the rights, interests or obligations under this Agreement shall be assigned, in whole or in part, by operation of law or otherwise by any of the Parties without the prior written consent of each of the other Parties. Any purported assignment without such consent shall be void. Subject to the preceding sentences, this Agreement will be binding upon, inure to the benefit of, and be enforceable by, the Parties and their respective successors and assigns.

18. EMPLOYEES AND OTHERS

Each Party shall advise its Representatives, contractors, subcontractors and licensees, and shall require its Affiliates to advise their Representatives, contractors, subcontractors and licensees, of the obligations of confidentiality and non-use under this Agreement, and shall be responsible for ensuring compliance by its and its Affiliates' Representatives, contractors, subcontractors and licensees with such obligations. In addition, each Party shall require all persons and entities who are not employees of a Party and who are provided access to the Confidential Information, to execute confidentiality or non-disclosure agreements containing provisions no less stringent than those set forth in this

Agreement. Each Party shall promptly notify the other Party in writing upon learning of any unauthorized disclosure or use of the Confidential Information by such persons or entities.

19. NO LICENSE

Nothing in this Agreement is intended to grant any rights to under any patent, copyright, or other intellectual property right of the Disclosing Party, nor will this Agreement grant the Receiving Party any rights in or to the Confidential Information of the Disclosing Party, except as expressly set forth in this Agreement.

20. RELATIONSHIP BETWEEN PARTIES:

Nothing in this Agreement or in any matter or any arrangement contemplated by it is intended to constitute a partnership, association, joint venture, fiduciary relationship or other cooperative entity between the parties for any purpose whatsoever. Neither party has any power or authority to bind the other party or impose any obligations on it and neither party shall purport to do so or hold itself out as capable of doing so.

21. UNPUBLISHED PRICE SENSITIVE INFORMATION (UPSI)

agrees and acknowledges that _____, its Partners, employees, representatives etc., by virtue of being associated with RailTel and being in frequent communication with RailTel and its employees, shall be deemed to be "Connected Persons" within the meaning of SEBI (Prohibition of Insider Trading) Regulations, 2015 and shall be bound by the said regulations while dealing with any confidential and/ or price sensitive information of RailTel. shall always and at all times comply with the obligations and restrictions contained in the said regulations. In terms of the said regulations _____ shall abide by the restriction on communication, providing or allowing access to any Unpublished Price Sensitive Information (UPSI) relating to RailTel as well as restriction on trading of its stock while holding such Unpublished Price Sensitive Information relating to RailTel

22. MISCELLANEOUS.

This Agreement constitutes the entire understanding among the Parties as to the Information and supersedes all prior discussions between them relating thereto. No amendment or modification of this Agreement shall be valid or binding on the Parties unless made in writing and signed on behalf of each Party by its authorized representative. The failure or delay of any Party to enforce at any time any provision of this Agreement shall not constitute a waiver of such Party's right thereafter to enforce each and every provision of this Agreement. In the event that any of the terms, conditions or provisions of this Agreement are held to be illegal, unenforceable or invalid by any court of competent jurisdiction, the remaining terms, conditions or provisions hereof shall remain in full force and effect. The rights, remedies and obligations set forth herein are in addition to, and not in substitution of, any rights, remedies or obligations which may be granted or imposed under law or in equity.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date set forth above.

By Name:

RailTel Corporation India Limited:

Title:

By Name :

Witnesses:

Title:

33.10 ANNEXURE 11**PRE - BID AGREEMENT**

(To be executed in presence of public notary on non-judicial stamp paper of the value of Rs. 200/-. The stamp paper has to be in the name of the BA)

This Pre-Bid Agreement (the “**Agreement**”) is made at New Delhi on this _____ Day of (month) 2022.

BETWEEN

M/s. RailTel Corporation Of India Limited, (CIN: L64202DL2000GOI107905) a company registered under the Companies Act 1956, having its registered and corporate office at Plate-A, 6th Floor, Office Block, Tower-2, East Kidwai Nagar, New Delhi India – 110 023 and Southern Regional office at 1-10-39 to 44, 6A, 6th Floor, Gumidelli Towers, Begumpet Airport Road, Opp. Shoppers Stop, Hyderabad-500 016 (hereinafter referred to as “**RailTel**” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the **FIRSTPART. AND M/s. XXXX**, (CIN: _____) a company registered under the Companies Act 1956, having its registered office at and its Corporate Office located at _____ (hereinafter referred to as “**XXXX**” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the **SECOND PART.**

RailTel and _____ shall be hereinafter individually referred to as “**Party**” And collectively as “**Parties.**”
”Whereas,

A) RailTel is a "Mini Ratna (Category-I)" CPSU of Ministry of Railways, having exclusive right of way along Indian Railways and has created an OFC backbone and associated transport and network infrastructure to provide carrier class telecom services. RailTel has Unified License issued by DoT to provide a range of telecom services. RailTel also has two tier III certified data centres at Secunderabad and Gurugram. RailTel has created a slew of digital services like cloud, hosting, hosted Video Conferencing service, Aadhar Services, Content delivery platform, WIFI as a service etc. RailTel has strong capabilities in managing telecom infrastructure, MPLS network infrastructure, data centre services like as (Infrastructure as a Service) and PaaS (Platform as a Service).

B) _____ (DETAILS OF SECOND PART)

C) RailTel had floated an **EOI No: . dated _____ pursuant to the RFP floated by End Customer for “_ for End Customer Organization for agreed Scope of Work”(hereinafter referred as “The said work/project/tender”)**, and subsequently, based on the offer submitted by M/s **XXXX** towards the RailTel’s EOI, M/s **XXXX** has been selected by RailTel as Business Associate for the said Project.

D) RailTel is in the process of participating in the tender issued by end customer, complete details of which have deliberately not been shared with **XXXX** and **XXXX** has waived its right to get the RFP document of end customer owing to confidentiality concern raised by the end customer. However, a limited scope of work on ‘need to know basis and as detailed in clause 1.7 below, which will be carried out by **XXXX** has been shared with **XXXX** and based on the representation of “**XXXX**” that “**XXXX**” has read the said limited Scope of Work and has understood the contents thereof and that “**XXXX**” has sufficient experience to execute the said limited and defined scope of work, the Parties have mutually decided to form a “Business association” wherein RailTel shall act as the “Bidder” and “**XXXX**” shall act as the “business associate” in terms of the said Tender and in accordance to the terms agreed hereunder;

E) RailTel shall submit Rupees YYYY as BG against pre integrity pact at the time of submission of bid as an Integrity Pact bank guarantee to end customer and accordingly "XXXX" shall submit Rupees ZZZZ as BG of pre integrity pact on back-to-back basis to RailTel before final submission of the said bid to end customer. **(This is applicable on cases to case basis as per CIAL requirement. May please read in conjunction of the current RFP.)**

F) Party hereby acknowledges that RailTel has received Rs. /- (Rs. _____) from M/s XXXX as per the Terms and conditions of EOI no. dated ____.

G) The Parties are thus entering into this Agreement to record the terms and conditions of their understanding and the matters connected therewith.

RailTel has agreed to extend all the necessary and required support to "XXXX" during the entire contract period.

NOW, THEREFORE, in consideration of the mutual covenants set forth herein it is hereby agreed by and between the Parties hereto as under:

1. SCOPE OF CO-OPERATION

- 1.1. Parties have agreed to form a "business association" to co-operate with each other on an exclusive basis with respect to execution of the said Project.
- 1.2. It has been further agreed between the Parties that Parties shall not bid individually for the said Project nor shall they enter into any arrangement with other parties for the purpose of bidding for the said Project during the validity of this Agreement.
- 1.3. The Parties also agree that the terms of the said EOI for limited and defined scope of work along with the Corrigendum's issued thereafter shall apply mutatis-mutandis to this Agreement.
- 1.4. The Parties further agree that they shall, enter into a 'Definitive Agreement' containing elaborate terms and conditions, role and responsibilities and respective scope of work of this Agreement after declaration of RailTel as the successful bidder of the said Project.
- 1.5. RailTel shall submit the PBG amounting Rs. XXXXX, earnest money deposit / EMD declaration (whichever is applicable) and performance bank guarantee to **End customer** and accordingly "XXXX" shall submit to RailTel, BG amounting to Rs. _____ as the earnest money deposit. Further, XXXX shall also pay the performance bank guarantee in proportionate to the extent of its defined scope of work.
- 1.6. RailTel may further retain some portion of the work mentioned in the end organization's RFP, where RailTel has competence so that overall proposal becomes most winnable proposal.

XXXX agrees, undertakes and acknowledges that following shall be Scope of Work of XXXX out of the total project work.:

2. Technical Terms – As per CIAL/RCIL document

3. TERM AND TERMINATION

- 3.1. This Agreement shall come into force as of the date of signing and shall continue to be in full force and effect till the complete discharge of all obligations, concerning the carrying out of the said Project, except terminated earlier by the Parties in terms of this Agreement or in terms of the said project, whichever is applicable.
- 3.2. This Agreement can be terminated by either Parties forthwith in the event of happening of the following events:
 - (a) End customer announces or notifies the cancellation of the said Project and / or withdrawing the said RFP.
 - (b) The receipt of an official communication that End customer chooses not to proceed with RailTel for the said Project or RailTel is not short listed by End customer.
 - (c) Material breach of any of the terms and conditions of this Agreement by either of the Parties and the same is not rectified by the defaulting Party beyond 15 (fifteen) days (or a reasonable time period as mentioned under the notice issued by the other Party) from the date of receipt of notice from the other Party to cure the said breach.

3.3. Parties agree and understand that as of the execution of this Agreement they are contractually bound and obligated to perform the services, obligations and the scope of work entrusted, should RailTel be declared as the successful bidder of the said Project. Any Party shall not withdraw its participation subsequent to execution of this Agreement, at any point in time except in case of material breach of any of the terms of the Agreement.

3.4. In case "XXXX" breach the terms of Agreement i.e. defaulting party in such case the balance unsupplied quantity or service shall be completed by RailTel i.e. non-defaulting party and cost for completion of that balance unsupplied quantity or service of such defaulting party shall be executed by RailTel at the risk and cost of such defaulting party.

4. Liability:

It is understood that the parties are entering into this pre-bid teaming agreement for requirement of submission of bid against the RFP floated by end customer for Implementation of Network Security System and Integration for end Customer Organization. Parties acknowledge and agree that "XXXX" shall be completely liable for the successful execution of this project, in relation to its defined scope of work (as detailed in clause 1.7 above), fully complying the end customer requirements. Accordingly, it is agreed that notwithstanding anything contained in the RFP document, "XXXX" shall be liable to RailTel with regard to its obligations and liability to complete the agreed and defined scope of work as detailed in clause 1.7 above.

5. EXCLUSIVITY

Parties agree to co-operate with each other for the purpose of the said Project on an exclusive basis with respect to applying for, submitting and execution of the said Project including providing of technical demo, proof of concept for the agreed and defined scope of work.

6. PAYMENT TERMS

The payment terms between the parties shall be only on receipt of payment from end customer.

7. TAXES

Parties agrees that they will comply with the Indian Income Tax Act in force from time to time and pay Indian Income Tax, as may be imposed / levied on them by the Indian - Income Tax Authorities, for the payments received by them for the Project under this agreement and any other taxes, cess, surcharge, etc. for their respective scope of works;

8. INDEMNIFICATION

8.1 Parties agree to and undertake to indemnify and hold each other, its officers, directors, agents and employees harmless, from and against any and all claims, demands, causes of action, losses, damages, costs and expenses (including attorney's reasonable fees, costs of investigation and defence) arising out of or resulting from any claim, action or other proceeding (including any proceeding by any of the indemnifying party's employees, agents or contractors) based upon:

- i. any breach or contravention of any of the terms, conditions, covenants of this Agreement by the Party;
- ii. Unethical business practices;
- iii. any acts or omission of the Party and/ or any of its employees, agents or contractors, and the liability for damages to property arising from or out of party operations in connection with the performance of this agreement;
- iv. any claim for taxes that might arise or be imposed due to this performance of Services hereunder;
- v. any representation or warranty or information furnished by the Party being found to be false;

- vi. Parties failure to pay all applicable compensation to its respective personnel;
 - vii. death or personal injury to any person;
 - viii. destruction or damage to any property by acts or omissions of either Party, its representatives or personnel;
 - ix. any violation/non-compliance by the Party with any applicable laws governmental regulations or orders;
 - x. any third-party liability;
 - xi. improper handling or misuse of the Confidential Information of the Party(ies) by the Party
- 8.2 XXXX shall be liable to all risks and consequences (including the risk of payments) suffered in the performance of services under the Project and undertakes to indemnify RailTel from and against any non-payments (of RailTel's share payable to RailTel), recoveries and claim from End Customer or any other cost or losses incurred due to default/non-performance on part of XXXX.

9. COMPLIANCES TO STATUTORY OBLIGATIONS

- 9.1. Parties shall also obtain and keep in place necessary insurance policies, Mediciam policies, group insurance schemes of adequate value to cover their workmen, supervisors, etc. with regard to any accidents, injury or the liability under the Employee Compensation Act.
- 9.2. Parties shall observe and be responsible for the compliance of all labour laws (including labour cess) as per government notifications and shall maintain necessary records for the same and shall submit the same to RailTel when so required.
- 9.3. Parties shall duly maintain all records / registers required to be maintained by them under various labour laws mentioned above and shall produce the same before the concerned Statutory Authorities whenever required and called upon to do so.

10. LEGAL STATUS

This Agreement constitutes a contractual relationship and shall relate solely to the Project and shall not extend to other activities or be construed to create a corporation, body corporate, partnership or any other form of legal entity.

11. REPRESENTATIONS AND COVENANTS

- 11.1. Each Party represents and warrants to the other Party as follows:
 - 11.1.1. That it has full capacity, power and authority and has obtained all requisite consents and approvals to, enter into and to observe and perform this Agreement and to consummate the transactions contemplated hereunder. Each of the Persons / personnel executing this Agreement on behalf of the each of the Parties have full capacity and authority to sign and execute this Agreement on behalf of the respective Parties;
 - 11.1.2. The execution, delivery and consummation of, and the performance by it, of this Agreement shall not conflict with, violate, result in or constitute a breach of or a default under, (a) any contract by which it or any of its assets or properties, are bound or affected, and/or (b) its constitutional documents;
 - 11.1.3. This Agreement constitutes its legal, valid and binding obligations, enforceable against it, in accordance with their terms under Applicable Statutory Law(s);
 - 11.1.4. It has the right, authority and title to execute this Agreement;

12. SUBCONTRACTING BETWEEN PARTIES

If a Party subcontracts certain supplies or services pertaining to its scope of work to the other party, then the resulting relationship between such parties shall be governed by a separate subcontract. This Agreement shall not in any way be affected thereby except as stated otherwise in this Agreement

13. GOVERNING LAW AND JURISDICTION

The construction, validity and performance of this Agreement shall be governed in all respects by the Laws of India. The Parties hereby submit to the exclusive jurisdiction of the Indian courts at Delhi only.

14. GOOD FAITH NEGOTIATION AND DISPUTE RESOLUTION

The parties shall, at the first instance, attempt to resolve through good faith negotiation and consultation, any difference, conflict or question arising between the parties hereto relating to or concerning or arising out of or in connection with this agreement, and such negotiation or consultation shall begin promptly after a Party has delivered to another Party a written request for such consultation.

In the event of any dispute, difference, conflict or question arising between the parties here to, relating to or concerning or arising out of or in connection with this agreement, is not settled through good faith negotiation or consultation, the same shall be referred to arbitration by a sole arbitrator.

The sole arbitrator shall be appointed by CIAL/RailTel out of the panel of independent arbitrators maintained by RailTel, having expertise in their respective domains. The seat and the venue of arbitration shall be New Delhi. The arbitration proceedings shall be in accordance with the provision of the Arbitration and Conciliation Act 1996 and any other statutory amendments or modifications thereof. The decision of arbitrator shall be final and binding on both parties. The arbitration proceedings shall be conducted in English Language. The fees and cost of arbitration shall be borne equally between the parties.

15. FORCE MAJEURE

“Force Majeure Event” shall mean any event beyond the reasonable control of the affected Party including acts of God, fires, earthquakes, strikes, pandemic, epidemics, lock down, and labour disputes, acts of war or terrorism, civil unrest, economic and financial sanctions, or acts or omissions of any Governmental Authority occurring on or after the Signature Date.

No Party shall be liable to the other if, and to the extent, that the performance or delay in performance of any of its obligations under this Agreement is prevented, restricted, delayed or interfered with, due to a Force Majeure Event. The Party affected by Force Majeure Event shall promptly inform the other Party in writing and shall furnish within 30 (thirty) days thereafter, sufficient proof of the occurrence and expected duration of such Force Majeure Event. The Party affected by Force Majeure Event shall also use all reasonable endeavours to mitigate the negative effects of such Force Majeure Event on such Party’s ability to perform its contractual obligations. In the event of a Force Majeure Event, the Parties shall immediately consult with each other in order to find an equitable solution and shall use all reasonable endeavours to minimise the consequences of such Force Majeure Event. The occurrence of a Force Majeure Event shall however, not relieve a Party of any obligation to pay any sum due under this Agreement prior to the occurrence of the Force Majeure Event. If the Force Majeure lasts for more than 6 (six) months, the Parties may mutually decide in writing on the future course of action with respect to this Agreement.

16. INTELLECTUAL PROPERTY RIGHTS

16.1. Each Party shall remain the sole owner of all industrial or intellectual property rights, Technical Data, Know-How, designs, specifications and the like, generated or acquired before the signature, or beyond the scope of this agreement.

- 16.2. Each Party shall remain the sole owner of all industrial or intellectual property rights, technical data, know-how, design specifications and the like generated solely by that Party during the course of the performance of this agreement and shall not be free to use it by the other party and if the other party uses that intellectual property rights prior permission shall be taken with paying necessary fees for such rights.
- 16.3. In case of joint development, the work-share and associated ownership of intellectual property of each Party shall be mutually agreed upon and defined in advance in the definitive agreement for the specific program. However, should any invention be jointly made by the Parties in the performance of this agreement, without neither Party being in a position to reasonably claim the ownership of said intellectual property right, the said right shall be jointly owned by the Parties and the corresponding measures of protection for both Parties of the said right as may be practicable shall be mutually agreed by both Parties and cost for such registration of such right shall be borne by the parties proportionately as per the ownership of the rights.
- 16.4 As on date, Parties confirms that there are no infringements of any Intellectual Property Rights of the products contemplated under this agreement, in accordance with the laws prevailing in the country.
- 16.5. The Parties undertake and confirm that the Technology / Knowhow / Design owned by each of them and intended to be put into use for execution of various Projects pursuant to this agreement has been originally developed by each of such Parties. The Parties are entitled to all the Intellectual Property Rights in Technology / Knowhow / Design intended to be put into use for execution of various Projects and no third-party Intellectual Property Rights have been put in to use either in their original or modified form without proper authorisation of such third party. The Parties further vouchsafes that the foregoing undertaking is actuated by truth and accuracy and no misrepresentation is being put into use for inducing each other to enter into this agreement.

17. CONFIDENTIALITY

- 17.1. During the term of this agreement, either party may receive or have access to technical information, as well as information about product plans and strategies, promotions, customers and related non-technical business information which the disclosing party considers to be confidential ("Confidential Information as per RFP tender document"). In the event Confidential Information is to be disclosed, the Confidential Information must be marked as confidential at the time of disclosure, or if disclosed orally but stated to be confidential, and be designated as confidential in writing by the disclosing party summarizing the Confidential Information disclosed and sent to the receiving party within thirty (30) days after such oral disclosure.
- 17.2. Confidential Information may be used by the receiving party only with respect to the performance of its obligations under this Agreement, and only by those employees of the receiving party and its subcontractors who have a need to know such information for purposes related to this Agreement, provided that such subcontractors have signed separate agreements containing substantially similar confidentiality provisions. The receiving party must protect the Confidential Information of the disclosing party by using the same degree of care to prevent the unauthorized use, dissemination or publication of such Confidential Information, as the receiving party uses to protect its own confidential information of like nature.
- 17.3. The obligations is not applicable to any information which is:
- 17.3.1. Already known by the receiving party prior to disclosure;
 - 17.3.2. Publicly available through no fault of the receiving party;
 - 17.3.3. Rightfully received from a third party without being responsible for its confidentiality;
 - 17.3.4. Disclosed by the disclosing party to a third party without being responsible for its Confidentiality on such third party;
 - 17.3.5. Independently developed by the receiving party prior to or independent of the disclosure;

- 17.3.6. Disclosed under operation of law;
- 17.3.7. Disclosed by the receiving party with the disclosing party's prior written approval.
- 17.4. XXXX agrees and acknowledges that XXXX, its Partners, employees, representatives etc. by virtue of being associated with RailTel and being in frequent communication with RailTel and its employees, shall be deemed to be "Connected Persons" within the meaning of SEBI (Prohibition of Insider Trading) Regulations, 2015 and shall be bound by the said regulations while dealing with any confidential and/ or price sensitive information of RailTel. XXXX shall always and at all times comply with the obligations and restrictions contained in the said regulations. In terms of the said regulations, XXXX shall abide by the restriction on communication, providing or allowing access to any Unpublished Price Sensitive Information (UPSI) relating to RailTel as well as restriction on trading of its stock while holding such Unpublished Price Sensitive Information relating to RailTel
- 17.5 Notwithstanding anything contained in this agreement, XXXX undertakes, agrees and acknowledges that being RailTel's Business Associate, XXXX shall maintain utmost confidentiality in relation to said Project. XXXX further, undertakes that any information relating to said Project which is or will be disclosed/ divulged by RailTel on need to know basis, will be received and treated by XXXX as strictly confidential and XXXX shall not, without the prior written consent of the RailTel or as expressly permitted herein, disclose or make available to any other person such information.

18. **NOTICES**

Notices, writings and other communications under this Agreement may be delivered by hand, by registered mail, by courier services or facsimile to the addresses as set out below:

To RailTel Corporation Of India Limited

To: RailTel Corporation of India Ltd

Attn: Executive Director / Southern Region

Address: 1-10-39 to 44, 6A, 6th Floor, Gumidelli Towers, Begumpet Airport Road, Opp. Shoppers Stop, Hyderabad-500016 No.: +91-40-27788000

To XXXX

To: XXXX

Kind Attn: _____ Address: _____ Mob. _____ No.: _____
Email: _____

19. **AMENDMENT**

No amendment or modification or waiver of any provision of these presents, nor consent to any departure from the performance of any obligations contained herein, by any of the Parties hereto, shall in any event be valid and effective unless the same is in writing and signed by the Parties or their duly authorized representative especially empowered in this behalf and the same shall be effective only in respect of the specific instance and for the specific purpose for which it is given.

20. **PRIOR UNDERSTANDING**

This Agreement contains the entire Agreement between the Parties to this Agreement with respect to the subject matter of the Agreement, is intended as a final expression of such Parties' agreement with respect to such terms as are included in this Agreement is intended as a complete and exclusive statement of the terms of such agreement,

and supersedes all negotiations, stipulations, understanding, Agreements, representations and warranties if any, with respect to such subject matter, which precede or accompany the execution of this Agreement.

21. GENERAL

21.1. Binding Effect:

This Agreement shall be binding upon and inure to the benefit of the Parties here to and their respective legal successors.

21.2. Counterpart:

This Agreement may be executed simultaneously in 2 (two) counterparts, each of which shall be deemed to be original and all of which together shall constitute the same Agreement.

21.3. Non-Partnership:

21.3.1. This Agreement shall be on a principal-to-principal basis and shall not create any principal- agent relationship between the Parties.

21.3.2. Nothing in this Agreement shall be deemed to constitute a partnership or joint venture between the Parties or otherwise entitle either Party to have an authority to bind the other Party for any purpose.

21.4. Severability:

In the event any provision of this agreement is held invalid or un-enforceable by a court of competent jurisdiction, such provision shall be considered separately and such determination shall not invalidate the other provisions of this agreement and annexure/s which will be in full force and effect.

21.5. Waiver:

A failure by any Party to exercise or enforce any rights conferred upon it by this Agreement shall not be deemed to be a waiver of any such rights or operate so as to bar the exercise or enforcement thereof at any subsequent time.

21.6. Time is of essence:

Time is the essence of this agreement and the Parties herein agree and acknowledge to abide by the same.

22. Miscellaneous

22.1. No Party to this agreement will have any rights or obligations arising from or in relation to this agreement in excess of those rights and obligations expressly declared herein.

22.2. No Party to this agreement is entitled to sell, assign or otherwise transfer any of its rights and/or obligations arising from or in relation to this agreement to any third party, without the prior written consent of the other Party of this agreement.

22.3. Each Party shall be solely responsible for its own actions or failures to act and for its own commitments and undertakings. Neither Party shall present itself as the representative or agent of the other Party, nor shall it have the power or the authority to commit the other Party, unless it receives the other Party's prior written consent.

22.4. No release shall be made by any Party to the news media or the general public relating to this agreement and/or the subject matter thereof without prior written approval of the other Party.

22.5. During the term of this agreement, each party shall refrain from taking any action or attempt to take any action with the intent of impairing or causing prejudice to the business relationship, whether existing or prospective that subsists between the other party and its customers and business partners. Each party shall also desist from inducing or influencing or attempting to induce or influence any customer or business partner, whether existing or prospective of the other party, resulting into prejudice or detriment to business prospects of the other party.

Furthermore, Parties shall not compete with or cause detriment to the business prospects of each other by making use of confidential information, whether in its embodied or disembodied form, shared pursuant to this agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the day and year first above written.

For RailTel Corporation Of India Limited

For XXXX

Authorised Signatory

Authorized Signatory

Name:

Name

Designation:

Designation:

In Presence of witness

Signature:

Signature:

Name:

Name:

Address:

Address:

33.11 ANNEXURE 12**FORMAT FOR AFFIDAVIT TO BE UPLOADED BY BA ALONGWITH THE EOI****DOCUMENTS**

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs. 200/-The paper has to be in the name of the BA) **

I _____ (Name and designation) ** appointed as the attorney/authorized signatory of the BA (including its constituents), M/s (hereinafter called the BA) for the purpose of the EOI documents for the work of _____ as per the EOI No.

of (RailTel Corporation of India Limited), do hereby solemnly affirm and state on the behalf of the BA

including its constituents as under:

1. I/we the BA (s), am/are signing this document after carefully reading the contents.
2. I/we the BA(s) also accept all the conditions of the EOI and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the EOI documents from RailTel website www.railtelindia.com. I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to be content of the EOI document. In case of any discrepancy noticed at any stage i.e., evaluation of EOI, execution of work or final payment of the contract, the master copy available with the RailTel Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. I/we also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/we declare that the information and documents submitted along with the EOI by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of EOI, it shall lead to forfeiture of the EOI EMD besides banning of business for five years on entire RailTel. Further, I/we (insert name of the BA) ** and all my/our constituents understand that my/our constituents understand that my/our offer shall be EMD rejected.
8. I/we also understand that if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire RailTel.

VERIFICATION

SEAL AND SIGNATURE OF THE

DEPONENT

I/We above named EOI do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONENT

Place:

Dated:

SEAL AND SIGNATURE OF THE BA

****The contents in Italics are only for guidance purpose. Details as appropriate, are to be filled in suitably by BA.**
Attestation before Magistrate/Notary Public.

Signature of Bidder

Name:

Designation

Place:

Date:

Seal of BA Organization

Request for Proposal (RFP) for Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme

RFP No. CEIT/ITCSD/15/2024-25 dated 28.12.2024



KERALA STATE ELECTRICITY BOARD Ltd
(Incorporated under the Indian Companies Act, 1956)
Office of the Chief Engineer (IT, CR & CAPs)
Vydyuthi Bhavanam, Pattom Thiruvananthapuram – 695 004
Phone: (0471) 251 4654, 4610, 4502
Email: ceit@kseb.in Website: www.kseb.in

ABBREVIATIONS

Acronym	Definition
AAA	Authentication, Authorization, and Accounting
AP	Access Point
BoM	Bill of materials
BoQ	Bill of quantity
CA	Chartered accountant
CE	Chief Engineer
CPG	Contract Performance Guarantee
CR	Customer relations
DC	Data Centre
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
DR	Disaster Recovery Centre
DSC	Digital Signature Certificate
EMD	earnest money deposit
GST	Goods and Services Tax
HA	high availability
HDPE	high-density polyethylene
RDSS	Revamped Distribution Sector Scheme
KSEBL	Kerala State Electricity Board Ltd
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
LoA	Letter of Award
LoI	Letter of Intend
MPLS	Multi Protocol Label Switching
MOPS	Multiple Option Payment System
NTP	Network Time Protocol
OEM	Original equipment manufacturer
POE	Power over Ethernet
PVC	Permanent Virtual Circuit
SLA	Service Level agreement
VLAN	Virtual LAN
VPN	Virtual private network
SDWAN	Software Defined Wide Area Network

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1. LETTER OF INVITATION TO BIDDERS

Tender no.	E-Tender No. CEIT/ITCSD/15/2024-25 dated 28.12.2024
Name of the Organization	Kerala State Electricity Board Limited (KSEBL)
Title of Services	Request for Proposal (RFP) for Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme

Dear Sir/Madam,

Kerala State Electricity Board Limited (KSEBL) invites bid from competent Agency for carrying out the work of “Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN”.

Mode of Bid Submission	Online through e-Tendering system at https://etenders.kerala.gov.in/ The details regarding the RFP process shall be available on the same. The eligible bidders should visit the website from time to time and get the status updates. All details uploaded on the website from time to time shall be deemed to have been provided to all the bidders.
The Purchaser’s contact details	Chief Engineer (IT, CR & CAPs) 8 th floor, Vidyuthi Bhavanam, Pattom, Thiruvananthapuram – 695 004, Kerala Phone: +91 471 2514610 Email: ceit@kseb.in <i>Queries may be submitted to ceit@kseb.in</i>
Probable Amount of Contract (PAC)	Rs.12,00,00,000/- (including taxes) (Rupees Twelve Crores only)
Tender document fee (Non-refundable)	Rs.17,700/- (including GST)
Earnest Money Deposit	Rs. 5,00,000 (by online - of India Multi Option Payment System (SBI MOPS Gateway) only Total amount has to be made as (Rs. 5,17,700/-) as a single payment through online payment (SBI MOPS Gateway)
Last date to send in requests for clarifications on the tender document	Refer https://etenders.kerala.gov.in/
Date and Time for Pre- Bid Conference	Refer https://etenders.kerala.gov.in/
Response to Pre-Bid Clarifications /Corrigendum	Refer https://etenders.kerala.gov.in/
Last date for submission of Bids	https://etenders.kerala.gov.in/
Opening of Pre-qualification Bids	https://etenders.kerala.gov.in/
Opening of Technical Bids	Refer https://etenders.kerala.gov.in/
Opening of commercial Bids	Refer https://etenders.kerala.gov.in/

The prospective bidder should have the necessary competence, adequate financial standing, sufficient experience, expertise as per Qualification Requirements detailed in this document.

Before bidding under this bid, in order to avoid non-responsiveness of bid, bidder should ensure that:

1. They are qualified as per qualification criteria mentioned in this document
2. The offered product and solution meets the technical requirement laid down in this document.

Scope of Work is detailed out in the subsequent sections of the RFP

You are invited to submit your proposal as per the attached RFP document.

Yours sincerely,

Sd/-

Chief Engineer (IT, CR & CAPs),
KSEBL

2. INTRODUCTION

2.1. ABOUT KSEBL

KSEB Ltd. is a company incorporated under the Companies Act, 1956 and is fully owned by the Government of Kerala [Hereinafter KSEBLtd. will be described as 'Purchaser']. It is the sole agency for Generation, Transmission and Distribution of Electricity within the State of Kerala. It is having an installed capacity to the tune of 2226.281 MW and is having a consumer base of 1.19 crores. Also it is having a span of 59946 Kms of HT lines and 285506 Kms of LT lines.

2.2. BACKGROUND OF THE PROJECT

KSEBL has a Data Centre of tier-III standards functioning at the Corporate HQ located at Vidyuthibhavanam, Pattom, Thiruvananthapuram, Kerala with a Server farm area of 1800 Sq.ft. and a rack capacity of 48 nos. of 42U racks. The Disaster Recovery Centre of KSEB is functioning at Infopark, Cherthala, Ernakulam in almost a similar replica of the Data Centre. Also, more than 800 field offices are connected to the Data Centre and DR Centre through a redundant MPLS network to enable access to various KSEBL applications at the field offices.

The IT infrastructure including Data Centre, DR Centre WAN connecting the field offices was setup in 2013 as part of implementation of Part-A of RAPDRP. Majority of the above infrastructure components including Routers and Switches in various offices are old and obsolete now. The current WAN architecture is based on MPLS technology. As MPLS is getting outdated now, migration of the MPLS WAN to Software Defined WAN (SDWAN) architecture has been included as a key initiative under the RDSS project funded by GoI.

As part of the above, the conventional routers in the Data Centre/DR Centre along with field offices shall be replaced with SDWAN routers. The old and obsolete network switches in the field offices also need to be replaced with new Layer-2 Switches of latest specifications.

In order to achieve this goal, KSEBL is looking for a long-term engagement with a suitable partner (bidder) for migration of the existing MPLS Network to SDWAN.

3. INSTRUCTION TO BIDDERS

3.1. COST OF BIDDING

- 3.1.1. The Bidder shall bear all costs associated with the preparation and submission of the Bid and any subsequent events/activities related to this Tender. The Purchaser will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

3.2. LANGUAGE OF BID

- 3.2.1. The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.

3.3. CURRENCIES OF BID

- 3.3.1. Bidders may express their bid price in Indian Rupees only. Price Bid in any currency other than INR will be treated as non-responsive and hence will be rejected.

3.4. BID PRICES

- 3.4.1. Unless otherwise specified in the Scope of Work, Bidders shall quote for the entire Services on a Single Responsibility such that the total Bid price covers all the obligations of the Bidder mentioned in or to be reasonably inferred from the Tender Document in respect of providing the product/services. This includes all requirements under the Bidders responsibilities for successful completion of the Project as per Scope of Work and, where so required by the Tender Document, as specified in the Tender Document, all in accordance with the requirements of the General Conditions of Contract and Special Conditions of Contract.
- 3.4.2. Bidders are required to quote the price for the technical, commercial and contractual obligations outlined in the Tender Document.
- 3.4.3. Bidders shall give a break-up of the prices in the manner and detail as asked for in the Price Bid form online in e-Procurement Portal failing which the Purchaser shall reserve the right to assume/extrapolate the prices for the item/services for which the price has not been quoted and the same will be binding on the Bidders. Responsibility for including all applicable taxes, duties and levies in the Bid lie with the Bidder and the Purchaser shall not be responsible for any error/omission on the part of the Bidder.
- 3.4.4. The taxes, duties and levies shall be indicated by the Bidder in the Price Bid form online in e-tender Portal shall be quoted. Variation in applicable tax rates shall be borne by the KSEBL.
- 3.4.5. The prices/rates quoted by the Bidder shall remain firm (fixed) during the entire Contract Period and shall not be subject to any escalation/variation on any account, unless otherwise explicitly provided. A Bid submitted with an adjustable/variable price quotation will be treated as non-responsive and hence will be rejected.

3.5. PERFORMANCE BANK GUARANTEE

- 3.5.1. The successful Bidder shall furnish the performance security equal to 10% (Ten percent) of Total Contract Value after issue of LoA. The PBG should be only in the form of a Bank Guarantee issued by any nationalized/scheduled bank within 15 calendar days of the receipt of notification of award (LoA) from the Purchaser. The Performance Bank Guarantee shall be submitted in the form of Bank Guarantee as per the format given in this RFP.
- 3.5.2. PBG shall remain valid for full contract period and with a claim period of another ninety (90) calendar days. No interest shall be paid by the Purchaser on the Bid Security deposited by the Bidder.
- 3.5.3. Failure of the successful Bidder to comply with the requirement of Clause 3.5.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which event KSEBL may blacklist the successful bidder and award the contract to the next best value bidder or call for new proposals from the interested bidders.

3.6. BID VALIDITY

- 3.6.1. Bids submitted by Bidders shall remain valid for acceptance for one hundred and eighty (180) calendar days from the next day of the last date of Bid submission. A Bid valid for a shorter period may be rejected by the Purchaser as being non-responsive.
- 3.6.2. In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the Bid validity period. The request and responses there to shall be made in writing. If a Bidder accepts to prolong the period of validity, the Bid Security shall also be suitably extended. A Bidder may refuse such request which will not lead to forfeiting its Bid Security. A Bidder granting the request will neither be required nor permitted to modify its Bid.

3.7. CONSORTIUM

- 3.7.1. This bidding process is open to all the vendors who meet the eligibility criteria as per Section 6.
- 3.7.2. The Bid shall be submitted by only the sole Bidder; no consortium is allowed in this Bid.

3.8. AUTHORIZED SIGNATORY

- 3.8.1. The bid must contain the name, address and place of business of the Bidder and must be digitally signed and sealed by the designated Authorized Representative of the Bidder. The name of such person should also be typed or printed below the signature.
- 3.8.2. Bids by corporation/ company must be signed by the Authorized representative of the Bidder with the legal name of the corporation/ company.
- 3.8.3. Satisfactory evidence of authority (Power of Attorney) of the person signing on behalf of the Bidder shall be furnished with the bid.
- 3.8.4. The Bidder's name stated on the proposal shall be exact legal name of the firm.
- 3.8.5. Bids not conforming to the above requirements of signing shall be disqualified.

3.9. ALTERNATIVE BIDS

- 3.9.1. Alternative Price bids shall be rejected.

3.10. INVOLVEMENT OF SUB-CONTRACTOR (S)

- 3.10.1. Where the Bidder expects to sub-contract a part of the specified Scope of Work, the same must be clearly stated in the Bid, describing the work to be sub-contracted, the reasons for sub-contracting and the details of the Sub-contractor, including previous work done by the Sub-contractor in similar area. If the Bidder had not envisaged involvement of any Sub-contractor while bidding, but desires to do so during project execution, the Bidder must first get this approved by the Purchaser in writing, giving necessary details.

3.11. BID PRICES AND DISCOUNT

The prices quoted by the Bidder shall conform to the requirements specified below:

- 3.11.1. Prices quoted by the Bidder must be firm and final and shall remain constant throughout the period of the contract and shall not be subject to any upward revision.
- 3.11.2. If an item is required to complete the scope/services envisaged in this RFP not listed in the BoQ, price for the same shall be assumed to be included by the bidder in the prices of other items. Same item, as and when required, Bidder will provide "free of cost" to the Purchaser.
- 3.11.3. The bidders are advised not to indicate any separate discount. Discount, if any, should be accounted for in the quoted prices. Discount of any type, indicated separately will not be taken into account for evaluation purpose. However, in the event of such an offer, without considering the separate discount, is found to be the lowest, the Purchaser shall avail such discount at the time of award of contract.
- 3.11.4. Bidders should note that any conditional discount will not be considered.

3.12. CONTENTS OF TENDER DOCUMENT

- 3.12.1. The product and services required, bidding procedures, contract terms, Technical Requirements and Functional Requirements are prescribed in the Tender Document. Bidders are expected to examine all instructions, terms & conditions, specifications, annexure, forms and other information in the

Tender Document. Failure to furnish any or all information as required or submit a Bid not substantially responsive to the Tender Document in every respect will be at the Bidder's risk and may result in rejection of the Bid.

3.13. BIDDER TO OBTAIN HIS OWN INFORMATION

- 3.13.1. The Bidder shall for all purposes deemed to have independently obtained all necessary information for the purpose of preparing his Bid. The correctness of the details given in the Tender Document is for guideline information only, to help the Bidder prepare his Bid. The Bidder shall be deemed to have visited the Site and familiarized themselves thoroughly with the site conditions before submitting the Bid. The cost of visiting the sites shall be borne by the Bidder. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not providing services in strict conformity with scope and special conditions of the contract.
- 3.13.2. The Bidder shall be deemed to have examined the Tender Document and to have obtained his own information in all matters whatsoever that might influence carrying out the proposal at the scheduled rates and satisfied himself to the sufficiency of his Bid. Any error in description or quantity or omission there from shall not vitiate the Contract or release the Bidder from executing the Project comprised in the Contract according to the Scope of Work and specifications at scheduled rates. He is deemed to know the scope, nature and magnitude of the work involved in the Project.
- 3.13.3. The Bidder shall be deemed to have visited the sites and offices, to have satisfied himself to the nature of all existing business processes and also as to the nature and the conditions of available facilities and communications and possible interruptions there to the access and egress from sites and to have made enquiries, examined satisfied himself of the sites in respect to requirements for executing the Project and to have made local independent enquiries on all matters affecting the Contract. Bidder is deemed to have acquainted himself his liability for payment of statutory taxes, duties, levies, customs and other charges.
- 3.13.4. Any neglect or failure on part of the Bidder in obtaining necessary and reliable information or issues or any other matters affecting the Contract shall not relieve him from any risks or liabilities or the entire responsibility for executing the Contract at the scheduled rates and time in strict accordance with the Contract Agreement.
- 3.13.5. Any change in sites conditions or technological requirement shall be binding on the Bidder and no extra claim on this account shall be entertained.
- 3.13.6. The verbal agreement or inference from conversation with any employee of the Purchaser before, during or after the execution of the Contract Agreement shall not in any way affect or modify the terms and obligations herein contained.

3.14. CLARIFICATION ON TENDER DOCUMENT

- 3.14.1. Bidders requiring any clarification on the Tender Document may notify the Purchaser (at its postal/e-mail address given) in writing not later than two (2) calendar days before the date of pre-bid conference.
- 3.14.2. Except for responses to request for any clarifications on the Bid, the Bidder shall not contact the Purchaser by any means for any matter related to this Bid from the time of submission of the Bid until the Contract is awarded to and accepted by the Successful Bidder.
- 3.14.3. If deemed fit, written copies of the Purchaser's response (including explanation of queries without identifying its source) will be uploaded in e-procurement portal.

3.15. AMENDMENT OF BIDDING DOCUMENT

- 3.15.1. At any time prior to the deadline for submission of the Bids, Purchaser may modify the Tender Document by issue of an addendum/corrigendum.
- 3.15.2. In addition, Purchaser may issue addendum/corrigendum to the Tender Document to make/reflect amendment(s) in terms & condition or Scope of Work specified in this Tender Document.
- 3.15.3. Any such addendum/corrigendum will be made available at the e-tender website (<https://etenders.kerala.gov.in>). No separate other communication in this regard shall be made with any Bidder. It will be the responsibility of the Bidder to regularly visit the website to keep themselves updated on such changes.
- 3.15.4. No clarification obtained through verbal communication by the Bidders from any officer, agent or employee of the Purchaser or any staff of the Project Management Agency will be deemed as addendum/corrigendum to the Tender document.

- 3.15.5. The purchaser, at its discretion for any reason whether at its own initiative or in response to a clarification requested by a bidder may add, modify or remove any element of the Items (including hardware, software, networking etc.) or any component of Related Service entirely or any part thereof from the bid document till the deadline for submission of the Bids.
- 3.15.6. In order to provide Bidders reasonable time to take the addendum/corrigendum into account in preparing their bids, the Purchaser may, at its own discretion, extend the last date of Bid submission. In such an event, Bidders shall not be entitled to any compensation, in any form whatsoever.

3.16. INSTRUCTION FOR BID PREPARATION

- 3.16.1. The Bidders are advised to upload their Bids complete in all respect in the e-tender website. The Bidder shall upload a comprehensive list of attached forms/declarations/certificates etc. in response to Tender Document.

3.17. GENERAL TENDER TERMS & CONDITIONS FOR E-PROCUREMENT

This is an e-Tender and is being published online. The tender is invited in two cover system from the registered and eligible firms through e-procurement portal of Government of Kerala (<https://www.etenders.kerala.gov.in>). Prospective bidders willing to participate in this tender shall necessarily register themselves with above mentioned e-procurement portal.

The tender timeline is available in the critical date section of this tender published in www.etenders.kerala.gov.in.

3.17.1. Online Bidder registration process:

Bidders should have a Class II or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on www.cca.gov.in. Once, the DSC is obtained, bidders have to register on www.etenders.kerala.gov.in website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost.

Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471-2577088/188/388 or 0484-2336006, 2332262 or 0497-2764788, 2764188 or 0483-273294 or through email: etendershelp@kerala.gov.in or helpetender@gmail.com for assistance in this regard.

3.17.2. Online Tender Process:

The tender process shall consist of the following stages:

- a) Downloading of tender document: Tender document will be available for free download on www.etenders.kerala.gov.in. However, tender document fees shall be payable at the time of bid submission as stipulated in this tender document.
- b) Publishing of Corrigendum: All corrigenda shall be published on www.etenders.kerala.gov.in and shall not be available elsewhere.
- c) Bid submission: Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document on www.etenders.kerala.gov.in. No manual submission of bid is allowed and manual bids shall not be accepted under any circumstances.
- d) Opening of Technical Bid and Bidder short-listing: The technical bids will be opened, evaluated and shortlisted as per the eligibility and technical qualifications. All documents in support of technical qualifications shall be submitted (online). Failure to submit the documents online will attract disqualification. Bids shortlisted by this process will be taken up for opening the financial bid.
- e) Opening of Financial Bids: Bids of the qualified bidder's shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in critical date's section.

3.17.3. Documents Comprising Bid:

- a) **The First Stage (Pre-Qualification and Technical Cover):**

Pre-Qualification or Technical proposal shall contain the scanned copies of the all the forms and supporting document including the technical proposal.

The department doesn't take any responsibility for any technical snag or failure that has taken place during document upload.

Cover I- (Fee cover)

- The copy of agreement as per Appendix –D of the RFP in Kerala Stamp Paper worth Rs.200/-

Cover II – (Technical Cover)

- Signed tender document
- Scanned copy of all proof of documents/certificates of eligibility criteria/evaluation documents as mentioned in the RFP as a single pdf.
- Comprehensive technical proposal, complete specifications of the quoted products as a single pdf.
- All other document mentioned elsewhere in the bid as a single pdf.

Bidders shall take special care to ensure that the scanned copy of all uploaded documents shall be clear & legible. Furnishing multiple copies of documents like Purchase Order etc. shall be avoided.

b) The Second Stage (Financial Cover)

The Bidder shall complete the Price bid as per format given for download along with this tender.

Note: The blank price bid should be downloaded and saved on bidder's computer without changing file-name otherwise price bid will not get uploaded. The bidder should fill in the details in the same file and upload the same back to the website.

Cover-III- Price Bid (Part - III):

- BOQ (Price Bid)
- Scanned copy of Bid form (Section 8.1) in Kerala Stamp Paper worth Rs.200/-.

3.17.4. Tender Document Fees and Earnest Money Deposit (EMD)

The Bidder shall pay, a tender document fees and Earnest Money Deposit as specified in the NIT. The EMD is required to protect the purchaser against risk of Bidder's conduct, which would warrant the forfeiture of security.

Online Payment modes: The tender document fees and EMD can be paid in the following manner through e-Payment facility provided by the e-Procurement system. State Bank of India Multi Option Payment System (SBI MOPS Gateway): Bidders are required to avail Internet Banking Facility in any of below banks for making tender remittances in eProcurement System.

A) Internet Banking Options (Retail)

- | | |
|--------------------------------------|--|
| 1 Allahabad Bank | 32 Kotak Mahindra Bank |
| 2 Axis Bank | 33 Lakshmi Vilas Bank |
| 3 Andhra Bank | 34 Mehsana Urban Co-op Bank |
| 4 Bandan Bank | 35 NKGSB Co-operative Bank |
| 5 Bank of Bahrain and Kuwait | 36 Oriental Bank of Commerce |
| 6 Bank of Baroda | 37 Punjab and Maharashtra Cooperative Bank |
| 7 Bank of India | 38 Punjab National Bank |
| 8 Bank of Maharashtra | 39 Punjab and Sind Bank |
| 9 Bassein Catholic Co-operative Bank | 40 RBL Bank |
| 10 BNP Paribas | 41 Saraswat Cooperative Bank |
| 11 Canara Bank | 42 ShamraoVithal Cooperative Bank |
| 12 Catholic Syrian Bank | 43 South Indian Bank |
| 13 Central Bank of India | 44 Standard Chartered Bank |
| 14 City Union Bank | 45 State Bank of India |
| 15 Corporation Bank | 46 Syndicate Bank |
| 16 Cosmos Bank | 47 Tamilnad Mercantile Bank |

- | | |
|-------------------------|---|
| 17 DCB Bank | 48 Tamilnadu Cooperative Bank |
| 18 Dena Bank | 49 The Kalyan Janata Sahakari Bank |
| 19 Deutsche Bank | 50 TJSB Bank (Erstwhile Thane Janata Sahakari Bank) |
| 20 Dhanalaxmi Bank | 51 UCO Bank |
| 21 Federal Bank | 52 Union Bank of India |
| 22 HDFC Bank | 53 United Bank of India |
| 23 ICICI Bank | 54 Vijaya Bank |
| 24 IDBI Bank | 55 YES Bank |
| 25 Indian Bank | |
| 26 Indian Overseas Bank | |
| 27 IndusInd Bank | |
| 28 Jammu & Kashmir Bank | |
| 29 Janata Sahakari Bank | |
| 30 Karnataka Bank | |
| 31 Karur Vysya Bank | |

B) Internet Banking Options (Corporate)

- | | |
|----------------------------|--------------------------------------|
| 1 Bank of Baroda | 21 Laxmi Vilas Bank |
| 2 Bank of India | 22 Oriental Bank of Commerce |
| 3 Bank of Maharashtra | 23 Punjab & Maharashtra Coop Bank |
| 4 BNP Paribas | 24 Punjab & Sind Bank |
| 5 Canara Bank | 25 Punjab National Bank |
| 6 Catholic Syrian Bank | 26 RBL Bank |
| 7 City Union Bank | 27 ShamraoViththal Co-operative Bank |
| 8 Corporation Bank | 28 South Indian Bank |
| 9 Cosmos Bank | 29 State Bank of India |
| 10 Deutsche Bank | 30 Syndicate Bank |
| 11 Development Credit Bank | 31 UCO Bank |
| 12 Dhanalaxmi Bank | 32 Union Bank of India |
| 13 Federal Bank | 33 UPPCL |
| 14 HDFC Bank | 34 Vijaya Bank |
| 15 ICICI Bank | 35 Axis Bank |
| 16 Indian Overseas Bank | |
| 17 Janta Sahakari Bank | |
| 18 Jammu & Kashmir Bank | |
| 19 Karur Vysya Bank | |
| 20 Kotak Bank | |

During the online bid submission process, bidder shall select SBI MOPS option and submit the page, to view the Terms and Conditions page. On further submitting the same, the e-Procurement system will redirect the bidder to MOPS Gateway, where two options namely SBI and Other Banks¹ will be shown. Here, Bidder may proceed as per below:

- 1) SBI Account Holders shall click SBI option to with its Net Banking Facility., where bidder can enter their internet banking credentials and transfer the Tender Fee and EMD amount.

¹Transaction Charges for Other Banks vide SBI Letter No. LHO/TVM/AC/2016-17/47 – 1% of transaction value subject to a minimum of Rs. 50/- and maximum of Rs. 150/-

Bidders who are using Other Banks option under SBI MOPS Payment Gateway, are advised by SBI to make online payment 72 hours in advance before tender closing time.

- 2) Other Bank Account Holders may click Other Banks option to view the bank selection page. Here, bidders can select from any of the 54 Banks to proceed with its Net Banking Facility, for remitting tender payments.

3.17.5. Submission process:

For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and financial bid online on www.etenders.kerala.gov.in along with online payment of tender document fees and EMD.

It is necessary to click on “Freeze bid” link/ icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/ opening during bid opening process.

3.17.6. Authentication of Bid

The response bid shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. A letter of authorization shall be supported by a written power-of-attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the bid.

3.17.7. Validation of interlineations in Bid

The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initiated by the person or persons signing the bid.

3.18. CORRUPT PRACTICE

3.18.1. The Purchaser requires bidders, SI, and contractors to observe the highest standard of ethics during the execution of such contracts.

3.18.2. The following definitions apply:

- Corrupt practice means the offering, giving receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any party in the procurement process or the execution of a contract.
- Fraudulent practice means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.
- Collusive practices means a scheme or arrangement between two or more bidders, with or without the knowledge of the KSEBL, designed to influence the action of any party in a procurement process or the execution of a contract.
- Coercive practices means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;

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

3.18.4. The Purchaser will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in projects if it at any time determines that the Bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, a KSEBL contract.

3.18.5. Furthermore, Bidders shall be aware of the provision stated in clause 4.6 Termination of Contract.

3.19. CONFLICT OF INTEREST

3.19.1. Bidder shall hold KSEBL's interest paramount, without any consideration for future work and strictly avoid conflict with other assignment or their own corporate interest.

3.19.2. Bidder should not be engaged in any such business (excluding any work assigned to them by KSEBL) which has conflict of interest with the project for which the bids are being submitted.

3.19.3. KSEBL considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest

- may contribute to or constitute a prohibited corrupt practice. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to:
- 3.19.3.1. Receive or have received any direct or indirect subsidy from any of them; or have common controlling shareholders, or
 - 3.19.3.2. Have the same legal representative for purposes of this Bid, or Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or
 - 3.19.3.3. Influence the decisions of the KSEBL regarding this bidding process, or
 - 3.19.3.4. Bidder participates in more than one bid in this bidding process. Participation in more than one Bid will result in the disqualification of all Bids in which it is involved.
 - 3.19.3.5. Bidder gets associated as a Consultant/Advisor/Third party independent evaluating agency with any of the agencies taking part in the bid process.
 - 3.19.3.6. Bidders have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Employer, or that may reasonably be perceived as having this effect. Any such disclosure shall be made as per the Standard forms of technical proposal provided herewith. If the Bidder fails to disclose said situations and if the Employer comes to know about any such situation at any time, it may lead to the disqualification of the Bidder during bidding process or the termination of its Contract during execution of assignment.

3.20. UNFAIR ADVANTAGE

- 3.20.1. If a Bidder could derive a competitive advantage from having provided IT Services/Assignment/Job related to the Assignment/Job in question and which is not defined as conflict of interest as per clause 3.17 above, the Employer shall make available to all Bidders together with this RFP all information that would in that respect give such Bidder any competitive advantage over competing Bidders.

3.21. RIGHT OF PURCHASER TO ACCEPT OR REJECT BIDS

- 3.21.1. The Purchaser reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.
- 3.21.2. The right to accept the Bids in response to this Tender Document will rest with the Purchaser. The Purchaser further does not bind himself to accept the Bid with highest Final Score and reserves the authority to reject any or all the Bids received without assigning any reason whatsoever.
- 3.21.3. The Purchaser reserves to himself the right to accept Bids in respect of all items, any one item or part of an item, and the acceptance thereof shall be deemed as sufficient notice of the exercise of such right. The Bid shall thereafter be for the quantity so accepted which will form the Contract.
- 3.21.4. Bid in which any of the particulars and prescribed information is missing or incomplete in any respect and/or prescribed conditions are not fulfilled are liable to be rejected. The decision of the Purchaser in respect of the above shall be final and binding on the Bidder.
- 3.21.5. Canvassing in connection with Bid is strictly prohibited. The submitted Bid of the Bidder who resorts to canvassing is liable to be rejected. Bid containing uncalled remarks or any additional conditions are liable to be rejected.
- 3.21.6. The Bid uploaded may be rejected in the following, but not limited to, circumstances:
 - 3.21.6.1. Any Bid received by the Purchaser after last date and time of Bid submission as stated in the Bid Datasheet, or
 - 3.21.6.2. Any Bid submitted in hardcopy or fax or e-mail, or
 - 3.21.6.3. Any Bid mentioning deviations from the Scope of Work and terms & conditions as mentioned in this Tender Document, or
 - 3.21.6.4. Any Bid which does not have necessary information strictly in a prescribed formats (Forms or Annexure provided in the Tender Document), or
 - 3.21.6.5. Any Bid quoting prices for any or all the items in the format not strictly as per Price Bid (merging of prices of various items into one is not permitted), or
 - 3.21.6.6. Any Bid quoting prices in the currency other than Indian Rupee, or
 - 3.21.6.7. Any Bid not accompanied by proper authorization from OEM/Product Vendor allowing Implementation Partner to quote in response to this Tender Document, or

- 3.21.6.8. Any Bid containing credentials which were found to be misleading/false based on verification by the Purchaser, or
- 3.21.6.9. Any Bidder who conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in the bid, in any manner whatsoever, in order to create circumstances for the acceptance of the bid, or
- 3.21.6.10. Any Bidder who found to have indulged in any corrupt or fraudulent practice or in any practice, which is not in conformity with the highest ethical standards.
- 3.21.7. Apart from above, the Purchaser reserves the right to reject any or all Bids without citing any reason if deemed in the best interest of the Purchaser to do so.

3.22. BID EVALUATION

3.22.1. Confidentiality

- 3.22.1.1. Information relating to the examination, evaluation, comparison, and post qualification of Bids, and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process.
- 3.22.1.2. Any attempt by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the Bids or Contract award decisions may result in the rejection of its Bid.

3.22.2. Clarification of Bids

- 3.22.2.1. During bid evaluation, KSEBL may, at its discretion and if so required, ask the bidders for any clarification in support of their compliance to stipulated Qualifying Requirements or any other matter related to its bid. The request for clarification required from the bidder and the response there to shall be in writing and shall be delivered by email/fax.
- 3.22.2.2. No change in the price or substance of the Bid shall be sought, offered or permitted except to confirm the correction of arithmetical errors discovered by the Purchaser in the evaluation of the Bids.

3.22.3. Determination of responsiveness

- 3.22.3.1. The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required securities have been furnished, whether power of attorney of signatory of the bid has been submitted, whether the documents have been properly signed and whether the bids are generally in order and substantially responsive to the requirements of the bidding documents.
- 3.22.3.2. Any material information/data/document required to be submitted by the bidders as per provisions of bidding documents, if not submitted by the bidder, may render the bid to be non-responsive provided such information/data/documents is such that it may adversely affect the evaluation.
- 3.22.3.3. The Purchaser may waive any minor infirmity, non-conformity or irregularity in a bid that does not constitute a material deviation, and that does not prejudice or affect the relative ranking of any bidder, as a result of the technical and commercial evaluation.
- 3.22.3.4. If a bid is not substantially responsive to the requirements of the bidding documents, it may be rejected by KSEBL and the same cannot subsequently be made responsive by the bidder by correction.

3.22.4. Correction of arithmetical errors in price bid

- 3.22.4.1. Arithmetical errors will be corrected at the time of evaluation of Price bid and the corrected figure will be considered as evaluated bid price. The corrections in the bid price shall be done as per the provisions of this clause and shall be binding on the bidder. If the bidder does not accept the correction of errors as per the provisions of this clause, his/her bid will be rejected and the bid security will be forfeited.
- 3.22.4.2. If there is a discrepancy between the product of unit price and quantity and the total price, the product of unit price and quantity will prevail and the total price will be corrected. If there is discrepancy between summation of subtotals and total price, the summation of subtotal price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figure, the amount in words will prevail. In case unit price or quantity or both are not filled in against any item, it will be treated as zero and will be assumed that the Bidder has absorbed the cost elsewhere in the Price Bid.

3.22.5. Pre-qualification and Technical Evaluation of the Bidders

- 3.22.5.1. Qualification Requirement- Each bid shall be evaluated to ascertain the qualification of bidder with respect to the requirements laid down in this RFP.
- 3.22.5.2. Availability for No-Deviation Certificate. If any deviation is found, the bid shall be declared as non-responsive.
- 3.22.5.3. Technical details and proposals submitted by the bidders shall be critically examined in line with objectives & scope of work mainly but not limited to the following criteria:
 - 3.22.5.3.1. Schematic diagram showing all the modules & components of the systems covered in the specification and integration with existing systems.
 - 3.22.5.3.2. Description of the technical solution for achieving the integrations as shown in the above schematic diagram.
 - 3.22.5.3.3. Compliance to the Technical Specifications.
 - 3.22.5.3.4. Compliance to the proposed solution as per the RFP along with the equipment OEM & Model and Versions.
 - 3.22.5.3.5. Adherence with the time period as per schedule of deliveries defined in the RFP along with the work break down schedule.

Note: As part of the Pre-Qualification and Technical Evaluation, bidders are required to carry out a technical presentation of the proposed solution and quoted products at KSEB Headquarters, based on the discretion of KSEB. Accordingly, the shortlisted bidders will be communicated the date and time of the technical presentation.

After preliminary examinations and opening of the Technical Bids, prequalified bidders are required to conduct a Proof of Concept (PoC) demonstrating the implementation performance of the SD-WAN solution across 5 selected field offices, as designated by KSEBL. Only those bidders who successfully complete the PoC alone will be considered for further bid processing, based on the evaluation of their performance and alignment with the requirements of this tender.

3.22.6. Financial Bid Evaluation

- 3.22.6.1. Only those Bidders who qualify the Pre-Qualification Requirements and Technical Evaluation shall be considered for Financial (Price Bid) evaluation.
- 3.22.6.2. The Financial Bids which are opened shall be evaluated and the bidders whose total quote is the lowest shall be ranked as L1 bidder.
- 3.22.6.3. The Purchaser will correct arithmetical errors during evaluation of Financial Bids.
- 3.22.6.4. Except as provided in clauses 3.22.4 herein above, Tendering Authority shall reject the Price Proposal if the same contains any other computational or arithmetic discrepancy or error.
- 3.22.6.5. The bids will be evaluated and awarded as per the evaluation criteria that "The Bidders having lowest financial quote during Financial Bid Evaluation shall be considered as the L1 Bidders".

3.23. AWARD OF CONTRACT

- 3.23.1. The Purchaser will award the Contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid as per the evaluation methodology of this document provided further that the bidder is determined to be qualified to perform the Contract satisfactorily. The Purchaser shall be the sole judge in this regard.
- 3.23.2. For the purpose of determining the capability and capacity of the bidder to perform the Contract, the Purchaser reserves the right to verify the authenticity of the documents submitted by the bidder for meeting the qualification requirements and may undertake verification of the manufacturing facilities available with the bidder
- 3.23.3. After approval of bid evaluation by KSEBL, the successful bidder may be invited for pre-award discussions. After pre-award discussions and prior to the expiry of the period of bid validity, KSEBL will notify the successful bidder in writing by registered letter or by email or fax that his/her bid has been accepted. This letter (hereinafter and in the Conditions of Contract called 'Letter of Intent' or LoI) shall name the sum which KSEBL will pay to the Contractor in consideration of the execution and completion of the scope of work by the successful bidder as prescribed under this tender document.

- 3.23.4. Within seven (7) days of receipt of the LoA, the successful bidder shall sign and return one (1) copy of the same to KSEBL as acknowledgment of acceptance of the same.
- 3.23.5. Within fourteen (14) Days of receipt of LoA the Successful Bidder shall submit the Performance Bank Guarantee (10% of Contract Value) and Contract Agreement in the prescribed format. If the Successful Bidder fails to sign the Contract Agreement within the specified time limit, the Bid Security (EMD) will be forfeited and the Purchaser will have right to cancel the LoA.
- 3.23.6. After the submission of the PBG and Contract Copy, KSEBL will Issue the Detailed Work Award to the Preferred Bidder.
- 3.23.7. If the bidder conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in the bid, in any manner whatsoever, in order to create circumstances for the acceptance of the bid, the purchaser reserves the right to reject such bid and/or cancel the LoI, if issued.

4. TERMS AND CONDITIONS

The Terms and Conditions of the contract shall prevail and shall be binding on the Agency and any change or variation expressed or impressed howsoever made shall be in operative unless expressly sanctioned by the KSEBL. The Bidder shall be deemed to have fully informed himself and to have specific knowledge of the provisions under terms and Conditions of this Tender Document mentioned hereunder:

4.1. DEFINITION OF TERMS

- 4.1.1. In constructing these general conditions and the annexed specification, the following words shall have the meaning here in assigned to them unless there is anything in the subject of context inconsistent with such construction. KSEBL shall mean the KERALA STATE ELECTRICITY BOARD LIMITED or KSEBL or Purchaser, represented by Chief Engineer (IT, CR & CAPs) and shall include their legal personal representative, successors and assignees.
- 4.1.2. Bidder may be specified as a 'company' or a Joint Venture of 'companies'
- 4.1.3. The "Agency / Contractor / successful bidder" shall mean the Bidder whose Bid has been accepted by KSEBL and shall include its heirs, legal representative, successors and assignees approved by the KSEBL.
- 4.1.4. The "Chief Engineer (IT, CR & CAPs)" shall mean the Chief Engineer (IT, CR & CAPs), KSEBL.

4.2. CONTRACT

After the selection of successful bidder, KSEBL will issue Work Order/LoA. Accordingly, Contract Agreement in the prescribed format shall be executed by the successful bidder along with Performance Bank Guarantee.

4.3. CONTRACT VALUE

Contract Value shall be termed as total order value as quoted / accepted by the Successful Bidder in the Financial Bid.

4.4. CONTRACT PERIOD

The contract period shall be initially for a period of sixty-six months (6 months project completion and 60 months onsite warranty period) from the date of commencement of installation, which includes six months implementation period and sixty months for onsite warranty period. The warranty period may further be extendable for further two years as per the rate quoted in the bid.

4.5. IMPLEMENTATION PERIOD

The implementation period of project shall as defined in this document where in all the hardware, software, resources etc. should be installed/deployed by the bidder. The implementation period for this project shall be maximum six (6) months from the date of LOA.

4.6. FALL BACK ARRANGEMENT

- 4.6.1. In the event of failure of the Agency to fulfill its obligations, duties and responsibilities as per the terms & conditions of the Contract, KSEBL shall have the right, at any time to resort to fall back arrangement. Under such arrangement, KSEBL shall take charge of all facilities and systems whether in operation or under execution after giving suitable notice as provided in the Contract and can recover from the BGs & other holding of agency with utility, the losses suffered due to such failure. If the BGs & other holding of agency is insufficient, the Agency shall pay the difference to KSEBL failing which KSEBL shall have right to recover the sum through legal or other means.
- 4.6.2. KSEBL shall have the right in such circumstances to manage the system itself after taking charge of the facilities as above or through any other agency as it may deem fit and no claim of Agency for compensation in this respect shall be entered.
- 4.6.3. KSEBL shall have the right in such circumstances to blacklist/bar/disqualify the Agency from submission of Bid to the any Discom(s) at least for three years.

4.7. HANDING OVER ON TERMINATION/ PROJECT COMPLETION:

- 4.7.1. The Contract shall require the Agency to cooperate in handing back the facilities to KSEBL after termination of Contract/Project Completion.
- 4.7.2. In the event of termination or expiry of contract, the bidder shall be responsible for the transition activities to be completed across a transition period of as decided by utility (within the contract period). These activities shall also be applicable in case of reduction in scope of services if applicable. The successful bidder shall provide knowledge transfer to operations team through training sessions, workshop, discussion sessions and response to queries. The bidder should ensure that its team has handed over administration rights/passwords to the new operations team and KSEBL IT team.
- 4.7.3. In case KSEBL observes the lack of willingness to manage transitions / sharing of information or lack of support from Service Provider end (selected through this RFP), KSEBL shall have absolute discretion to levy severe penalties and deduct the amount from performance bank guarantee.

4.8. PERFORMANCE BANK GUARANTEE

- 4.8.1. Bidder has to furnish bank guarantee as performance security for the supplied equipment and services
- 4.8.2. A Performance Bank Guarantee equivalent to 10% (Ten Percent) of the respective Contract value shall be furnished by the Successful Bidder within 14 days of receipt of LOA from KSEBL. An unconditional & irrevocable Bank Guarantee for ten percent (10%) of the total Contract price towards Contract Performance Guarantee (CPG) in accordance with the provisions of GCC. The said bank guarantee shall be initially valid up to ninety (90) days after expiry of the contract Period and shall be extended from time to time till ninety (90) days beyond the successful completion of the warranty period of 5 years.
- 4.8.3. The Bank guarantee in the prescribed format must be from the branch of any Nationalized/Scheduled Bank. The Agency may furnish Bank Guarantee on stamp paper of Kerala state and shall furnish a certificate of Banker that the stamp duty has been paid as per prevailing rules of that Kerala State.

4.9. AGENCY TO INFORM HIMSELF FULLY

The Contract shall be considered to have come into force from the date of its signing. The contractor shall be deemed to have carefully examined the Tender document including General Conditions, specifications and schedules. Also it shall deemed to have satisfied himself with the nature and character of the work to be executed and where necessary, of the site conditions and other relevant matters and details. Any information thus had or otherwise obtained from the KSEBL or the Engineer shall not in any way relieve the contractor from his responsibility for the supplying of the Infrastructure, hardware, software and other equipment and executing the work in terms of the contract including all details and incidental works and supply all accessories or apparatus which may not have been specifically mentioned in the contract but necessary for ensuring complete erection and safe and efficient working of the equipment.

4.10. CONTRACT DOCUMENTS

- 4.10.1. The order placed under this Tender document shall be governed by the terms and conditions as incorporated in this Tender document and as given in the detailed work order. The terms and conditions as specified in this Tender document if differ from the terms indicated in the detailed work order the later shall prevail.
- 4.10.2. For all purposes, the contract will be construed as per the prevailing laws of India and in case of dispute, the civil courts at Thiruvananthapuram will have exclusive jurisdiction. For the due fulfillment of the contract, the Agency shall execute the Contract in the prescribed form, in prescribed number of copies on Kerala State Non-judicial stamp paper bearing stamp duty as applicable. The expenses of completing and stamping the Contract shall be borne by the Contractor. Such Contract shall be executed and signed by the authorized signatory of the Agency on each page thereof.
- 4.10.3. Such complete agreement form along with the contract documents together with a "Power of Attorney" in favour of the Executants shall be required to be submitted to the KSEBL within a period of 15 days from the receipt of order duly signed on each page. One copy of the executed agreement duly signed by the KSEBL shall be sent to the supplier for his reference.
- 4.10.4. The contract documents shall mean and include the following: -

- 4.10.4.1. Contract agreement.
- 4.10.4.2. Notice Inviting Tender
- 4.10.4.3. Complete Tender document including its amendments if any.
- 4.10.4.4. Bid submitted by bidder.
- 4.10.4.5. BID SECURITY
- 4.10.4.6. Letter of Intent and its acknowledgement
- 4.10.4.7. Security Deposit/ Performance Guarantees.
- 4.10.4.8. Detailed Work Order& its Annexure.
- 4.10.4.9. Addenda that may hereafter be issued by the KSEBL to the Agency in the form of letter and covering letters and schedule of prices as agreed between the Agency and the KSEBL.
- 4.10.4.10. The agreements to be entered as per Tender Document.
- 4.10.4.11. Requisite Power of Attorney in favour of the authorized signatory of the Bidder.

4.11. CHANGE OF AREA/QUANTITY

- 4.11.1. Change of Quantity - Deleted
- 4.11.2. KSEBL reserves the right to increase or decrease the quantities of items as may be necessary, at the time of award of contract.

4.12. GRAFTS AND COMMISSIONS ETC.

- 4.12.1. Any gift, commission, or advantage given, promised or offered by or on behalf of the contractor or his partner, agent, officers, director, employee or servant or any one on his or their behalf in relation to the obtaining or to the execution of this or any other contract with the Utility, shall be, in addition to any criminal liability which it may incur, subject of any loss or damage to the utility resulting from any cancellation. The utility shall then be entitled to deduct the amount so payable from any moneys otherwise due to the Agency under the contract.

4.13. SAFETY OF SYSTEM

- 4.13.1. The Agency shall be fully responsible for upkeep, operation, maintenance, security and safety of infrastructure, hardware, software, documents, data and other documents and records transferred to it and developed later. These documents and records shall be maintained in updated condition and handed over back to KSEBL.

4.14. LIABILITY FOR ACCIDENTS AND DAMAGES

- 4.14.1. The Agency shall be liable for and shall indemnify the KSEBL in respect of any injury to person or damage to property resulting from the negligence of the Agency or his workman or from defective work or from any other acts related to this contract.
- 4.14.2. The Agency will indemnify and save harmless the KSEBL against all actions, suits, claims, demands, costs, or expenses arising in connection with injuries (other than such as may be attributable to the KSEBL or his employees) suffered prior to the date when the work shall have been taken over hereof by persons employed by the contractor on the work, whether at common law or under the workman's compensation Act-1923 or any other statute in force at the date of contract relating to the question of the liability of employees for injuries suffered by employees and will if called upon to do so take out the necessary policy or policies of insurances to over such indemnity.
- 4.14.3. The Agency shall insure against such liabilities with an insurer approved by the KSEBL and shall continue such insurance, during the whole of the time that any person(s) are employed by him on the works and shall when required produce to the KSEBL, such policy of insurance and the receipt for payment of the current premium.

4.15. MAINTENANCE OF FACILITIES AND PERSONNEL

PERSONNEL

- 4.15.1. The Agency shall deploy exclusive supervisory and other personnel for efficient management of the work under contract. Apart from the personnel specified in the scope of work. However this contract is on service model, Agency shall be responsible for smooth & timely execution of work by appointing sufficient number of manpower.
- 4.15.2. Manager or an alternate shall be available for communication during 9 am to 7 pm.

- 4.15.3. Agency shall not change the Manager/nodal officer, provide that he has not left the service.
- 4.15.4. Contractor shall change the Manager/Nodal Officer with prior intimation to KSEB Ltd.
- 4.15.5. Agency shall issue identification cards (ID card) to all its personnel engaged in the work under the contract. The identification card duly signed by authorized signatory of managerial position of the contractor.

NODAL OFFICER FOR EXECUTION OF PROJECT

- 4.15.6. After award of contract, KSEBL shall appoint a Nodal Officer for the project implementation. Similarly, the Agency shall communicate the name of the authorize person(s) that would act as a Nodal Officer(s) from his side.

4.16. CONTRACT AGREEMENT

- 4.16.1. The Contract shall set out specific events of default by one party that will entitle the other party to terminate the Contract. The party committing an event of default, which is capable of being remedied, will be given a reasonable opportunity to remedy the default.
- 4.16.2. The Contract can however be otherwise terminated by either party by giving six-month notice and on terms to be mutually agreed which may include payment of suitable compensation for losses suffered by the other party due to such termination.
- 4.16.3. Agency shall indemnify KSEBL against any claims, demands, costs and expenses whatsoever which may be made against it, because of failure of the Agency or its representatives in the performance of their duties and negligence, any accident or injury to any person.

4.17. LIQUIDATED DAMAGES AND PENALTY

- 4.17.1. If the Supplier fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5% of the value of the Goods or Related Services, supplied beyond stipulated delivery schedule for each week or part thereof of delay until actual delivery or performance, subject to a maximum of 10% of value of such goods and services.
- 4.17.2. In addition, the Supplier is liable to the Purchaser for payment penalty as specified in the SLA.
- 4.17.3. If the Goods and Related Services supplied do not meet the minimum specifications as per the Contract, and the same is not replaced/modified by the Supplier to meet the requirements within 14 days of being informed by the Utility, the Utility shall be free to impose any penalty as deemed fit. In addition, the Utility shall reserve the right to terminate the contract and recover liquidated damages by forfeiting the performance guarantee submitted by the Purchaser.

4.18. WARRANTY

- 4.18.1. The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 4.18.2. Subject to GCC Clause, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 4.18.3. The onsite warranty/support shall remain valid for the period of five years from date of commissioning.
- 4.18.4. The Purchaser shall give Notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 4.18.5. Upon receipt of such Notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 4.18.6. If having been notified, the Supplier fails to remedy the defect within the period of warranty specified in the SCC; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

4.19. ADDITIONAL WARRANTY

- 4.19.1. The agency shall be liable to provide additional two years warranty for all the equipment supplied under this RFP, if KSEB desires so at that point of time. The rate for the additional two years onsite warranty should be quoted as per BoQ, and the same shall be considered for price bid evaluation. In the event of availing the Additional Warranty, the supplier shall be liable to extend the validity of the Performance Bank Guarantee till the completion of the extended warranty period.

4.20. TERMS OF PAYMENT

Activity	Payment Schedule	Milestones
<u>Milestone-I</u> Supply of the following: - All hardware and software components with accessories required for setting up SDWAN at the Data Centre and DR Centre as per BoQ - All hardware and software components with accessories for setting up SDWAN at Phase-I field offices (300 offices) as per BoQ	50% of the cost quoted for the hardware and software components at Data Centre, DR Centre and Phase-I field offices	Supply of items by the bidder and then purchaser confirmation that materials are received as per the Work Order conditions
<u>Milestone-II</u> Installation, configuration, system integration, testing, and commissioning all hardware and software components with accessories for setting up SD WAN backend infrastructure at the Data Centre and DR Centre	30% of the cost quoted for the hardware and software components at Data Centre and DR Centre 80% of installation charges quoted for the Data Centre and DR Centre components	On purchaser approval that installation, configuration, system integration, testing and commissioning of hardware and software components at Data Centre and DR Centre have been successfully completed
<u>Milestone-III</u> Installation, configuration, system integration, testing, and commissioning of Edge Devices and LAN switches for the Phase-I offices and the successful migration of the above-mentioned field offices to SD-WAN	30% of the cost quoted for the hardware and software components at Phase-I offices 80% of installation charges quoted for the Phase-I offices	On purchaser approval that the installation, configuration, system integration, testing and commissioning of Edge Devices and LAN switches for Phase-I offices have been completed and the above offices are fully migrated to SD-WAN.
<u>Milestone-IV</u> Supply of all hardware and software components with accessories as per BoQ for the Phase-II field offices (590 offices)	50% of the cost quoted for the hardware and software components at Phase-II offices	Supply of items by bidder and then purchaser confirmation that materials are received as per the Work Order conditions
<u>Milestone-V</u> Installation, configuration, system integration, testing, and	30% of the cost quoted for the hardware and	On purchaser approval that the installation, configuration, system integration, testing and commissioning

commissioning of Edge Devices and LAN switches for the Phase-II offices (by KSEB IT team), and successful migration of the above field offices to SD-WAN	software components at Phase-II offices	of Edge Devices and LAN switches in Phase-II offices have been completed successfully and the above offices are fully migrated to SD-WAN.
<u>Milestone-VI</u> Closure of all security observations given by KSEB Information Security Division and conduct OEM professional certification training program for KSEB employees	10% of the cost quoted for all hardware and software components of DC/DR and Phase-I & Phase-II field offices 10% of installation charges quoted for DC/DR and Phase-I offices	On purchase approval that all security observations are closed and professional certification training has been provided to the KSEBL Team as per the training schedule mentioned in the SoW
<u>Milestone-VII</u> Successful go-live of the total SD-WAN solution for one month	10% of the cost quoted for all hardware and software components of DC/DR and Phase-I & Phase-II field offices 10% of installation charges quoted for DC/DR and Phase-I offices	On purchaser approval that new SD-WAN solution including all hardware, software etc. in the Data Centre, DR Centre and Field Offices is running satisfactorily as per the performance requirements given in the RFP
Man Power charges – Onsite L2/L3 Resource	Payment will be made on quarterly basis on pro-rata basis after completion of each quarter	On purchaser approval that all duties of onsite resource has been carried out satisfactorily

4.21. PROJECT SCHEDULE

SL No.	Activity	Timeline
1	Date of LoA	T0
2	Submission of reports on site survey, detailed design with HLD & LLD, man power deployment plan, migration plan, project schedule etc.	T0 + 2 Weeks
3	Supply of SD-WAN Controllers, SD-WAN gateways, and other necessary components, including software/licenses, required for the successful installation and system integration of the SD-WAN solution at the Data Centre and DR Centre of KSEBL	T0 + 4 weeks
4	Installation, configuration, system integration, testing, and commissioning of SD-WAN controllers, gateways, and other components required for setting up SD-WAN at the Data Centre and DR	T0 + 6 weeks

	Centre of KSEBL. Preparation of necessary configuration templates for migrating Phase-I field offices (300 offices) to SDWAN	
5	Supply of 300 SD-WAN Edge devices and LAN Switches at field offices including software/licenses and other components necessary for migrating the Phase-I offices (300 field offices) to SD-WAN.	T0 + 8 weeks
6	Installation, configuration, integration, testing, and commissioning of Edge Devices along with LAN switches for the Phase-I offices specified in Annexure I and migration of the above-mentioned field offices to SD-WAN	
7	Providing necessary training to KSEBL IT team for carrying out the migration of Phase-II offices- 590 field offices (Edge device and Switch configuration, template creation etc.)	
8	Supply of Edge devices and LAN Switches for Phase-II offices (590 field offices as per Annexure-II) including software/licenses and accessories necessary for migrating the offices to SD-WAN	T0 + 12 weeks
9	Providing handholding support to the KSEBL IT team for carrying out the installation, configuration, integration, testing, and commissioning of Edge Devices and LAN switches for the Phase-II offices. Installation activities at Phase-II offices will be taken care by KSEB IT team.	T0 + 20 weeks
10	Performance testing and go-live of the total SD-WAN solution	T0 + 24 weeks = T
11	Onsite warranty and support as per SLA	T + 5 years

Note:

Regarding the migration of field offices to SD-WAN, the bidder's scope includes migrating the Phase-I offices (300 field offices) given in the attached list. The migration of the Phase-II offices (remaining 590 offices) will be carried out by the KSEBL IT Team. The bidder shall be required to provide necessary training and handholding support to the KSEBL IT Team to carry out migration activities of Phase-II offices within the time schedule.

4.22. GOVERNING LAW AND DISPUTE RESOLUTION

4.22.1. The agreement shall be governed by the laws of India. All disputes between the parties shall be resolved by way of mutual discussion. Any dispute remaining unresolved shall be subject to the exclusive jurisdiction of civil courts at Thiruvananthapuram.

4.23. CONDUCT OF AGENCY STAFF

4.23.1. If any of the Agency's employees shall, in the opinion of KSEBL, is guilty of any misconduct or incompetence or negligence, then if so directed by KSEBL, the Agency shall at once remove such employee and replace him by an equally qualified and competent substitute.

4.24. LIEN

4.24.1. In case of any lien or claim pertaining to the work and responsibility of the Agency for which KSEBL might become liable, it shall have right to recover such claim amount from the Agency.

4.25. FORCE MAJEURE CONDITIONS

4.25.1. If at any time during the currency of the Contract the performance in whole or in part be prevented or delayed by reason of any war hostility acts of public enemy, civil commotion, sabotage, fire floods, explosion, epidemics, quarantine restrictions, strikes, lockouts or acts of god (hereinafter referred to as Events) then provided Notice and adequate proof of the production/dispatch having suffered on account of these events is given within 21 days from the date of occurrence thereof the provision of penalty Clause of this specification shall not be invoked by KSEBL provided further that the deliveries under the contract shall be resumed, as soon as practicable after such event (s) has ceased to exist and the decision of the KSEBL as to whether the deliveries have been so resumed or not shall

be final and conclusive provided further that in case the strike/lockout prolongs beyond a period of seven days, the supplier shall immediately inform about the same to the KSEBL in which case the KSEBL reserves the right to procure the material equipment on order or part thereof from any other source at the risk and cost of the supplier.

4.26. COMPLETENESS OF CONTRACT

- 4.26.1. The contract shall be considered completed on termination of the contract period after full handing over of data, documents or material and clearing all dues towards the contractor as specified in this document and certified by CE (IT, CR & CAPs).

4.27. BANKRUPTCY

- 4.27.1. If the Agency shall dissolve or commit any act or bankruptcy or being a corporation commence to be wound up except for reconstruction purpose or carry on hits, business under a receiver, the executors successors, or other representatives in law of the state of the Agency or any such receiver, Liquidator, or any persons to whom to the contract may become vested shall forth-with given notice thereof in writing to the KSEBL and shall for one (1) month during which he shall take all reasonable steps to prevent stoppage of the work have the option of carrying out the KSEBL subject to his or their providing such guarantee as may be required by the KSEBL but not exceeding the value of the work for the time being remaining relieve unexecuted provided however that nothing above said shall be deemed to relieve the Agency or his successors of his or other their obligations under the contract under any circumstances. In the event of stoppage of the work the period of the option under this clause shall be seven (7) days only. Provided that, should the above option be not exercised, the contract may be terminated by the KSEBL by notice in writing to the Agency and the same power and provisions reserved to the KSEBL as mentioned in the Tender in the event of taking the work out of the Agency's hand's shall immediately become operative.
- 4.27.2. Change of name of the Agency at any stage after Bidding Process, the KSEBL shall deal the same as per prevailing rules of the KSEBL.

4.28. GUARANTEE AND REPLACEMENT OF DEFECTIVE/DAMAGED MATERIAL

GUARANTEE

The equipment's supplied should be guaranteed for their performance for the entire contract period. The equipment found defective within the above guarantee period shall be repaired/replaced by the supplier free of cost within one month of receipt of intimation.

4.28.1. REPLACEMENT OF DEFECTIVE/DAMAGED MATERIALS

If the whole or part of the materials are found to be defective/damaged or are not in conformity with the specification or sample, such defects or damages in the materials supplied shall be rectified within 15 days from the time of intimation of defect/damage either at the point of destination or at the supplier's works, at the cost of supplier, against proper security and acknowledgement. In the alternative, the defective or damaged materials shall be replaced free of cost within 15 days from the date of receipt of the intimation from the purchaser of such defects or damages.

4.29. FAILURE TO EXECUTE THE CONTRACT

- 4.29.1. Agency failing to execute the order placed on them to the satisfaction of KSEBL under terms and conditions set forth therein, will be liable to make good the loss sustained by the KSEBL, consequent to the placing of fresh orders elsewhere at higher rate, i.e. the difference between the price accepted in the contract already entered into and the price at which fresh orders have been placed. This is without prejudice to the imposition of Penalty/ Liquidated Damages and forfeiture of Performance Security.

4.30. EFFECTIVE RECOVERIES

- 4.30.1. Any loss, arising due to non-fulfillment of this contract or any other contract, will be recovered from the Performance Security held and or any other amount due to the Agency from the KSEBL from this Contract as well as from other contracts.

4.31. LIMITATIONS OF LIABILITY

- 4.31.1. The aggregate liability of the bidder to the Utility, whether under the contract or otherwise, shall not exceed 150% of the total Contract value, except in the case of irrecoverable data losses

4.32. CYBER SECURITY COMPLIANCE

- 4.32.1. The make/brand of the products quoted by the bidder should comply with the Government of India statutory guidelines related to industry standards, cyber security compliance etc.

4.33. NON-DISCLOSURE AGREEMENT (NDA)

- 4.33.1. The successful bidder shall execute a Non-Disclosure Agreement (NDA) in the prescribed format given in Annexure F.

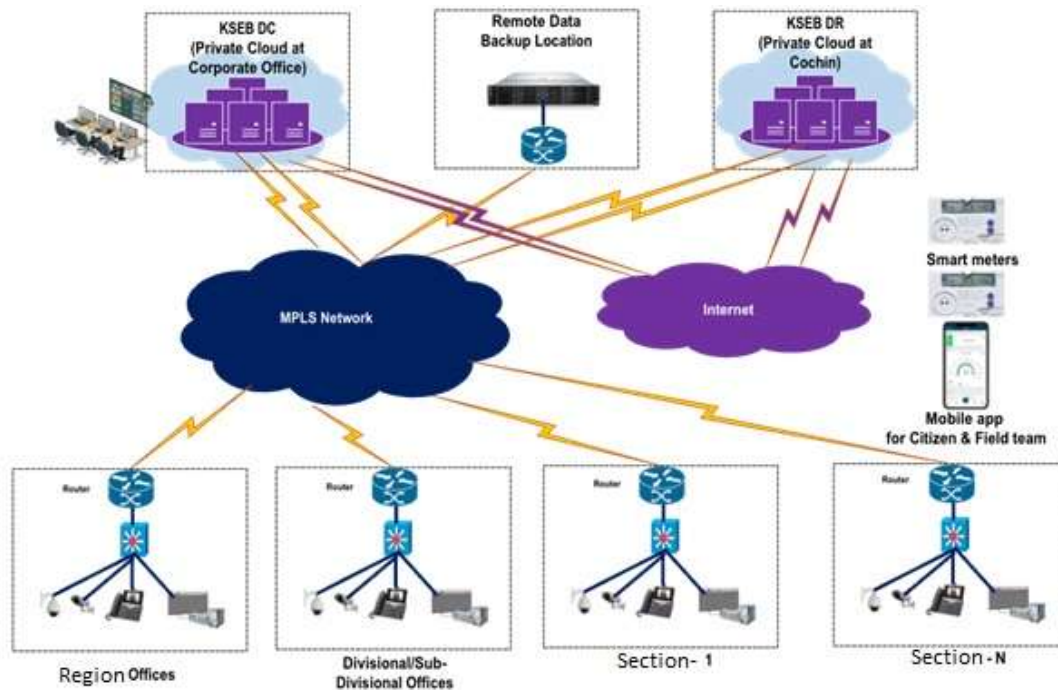
5. SCOPE OF WORK

5.1. INTRODUCTION

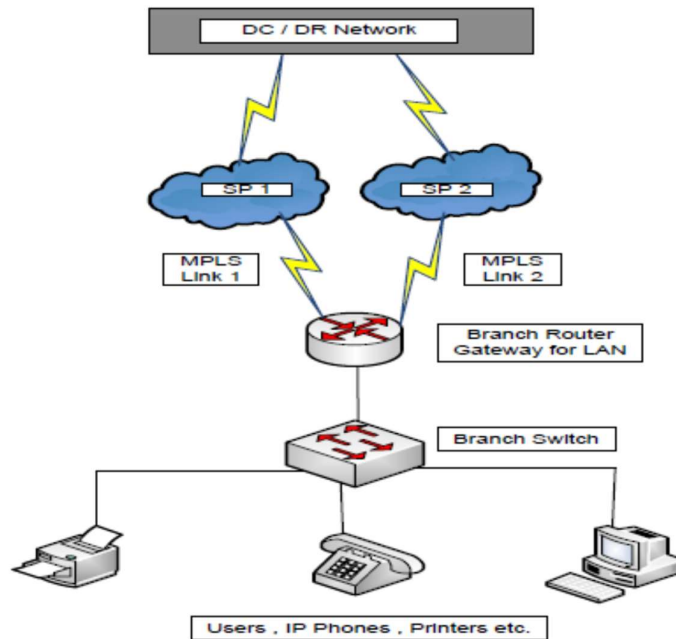
The purpose of the RFP is for setting up a Software Defined Wide Area Network for establishing seamless connectivity among the Data Centre, DR Centre and around 890 Field offices all over Kerala utilizing the existing MPLS links, Internet leased lines and FTTH connectivity available in the above locations. After completion of the above, the existing MPLS WAN shall be fully migrated to SD-WAN in a phased manner. As part of the above, the MPLS routers in the Data Centre, DR Centre and all field offices shall be replaced with SDWAN Hub/Edge devices. The services shall be offered with predefined SLA and warranty support for five years from the date of go-live. Ensuring business continuity and compliance for Information Security shall be the responsibility of the bidder.

In order to achieve this goal, KSEBL is looking for a long-term engagement with a suitable partner (bidder) for the implementation and establishment SD-WAN by replacing the MPLS WAN devices with SD-WAN devices.

5.1.1. EXISTING ARCHITECTURE OF KSEB WAN

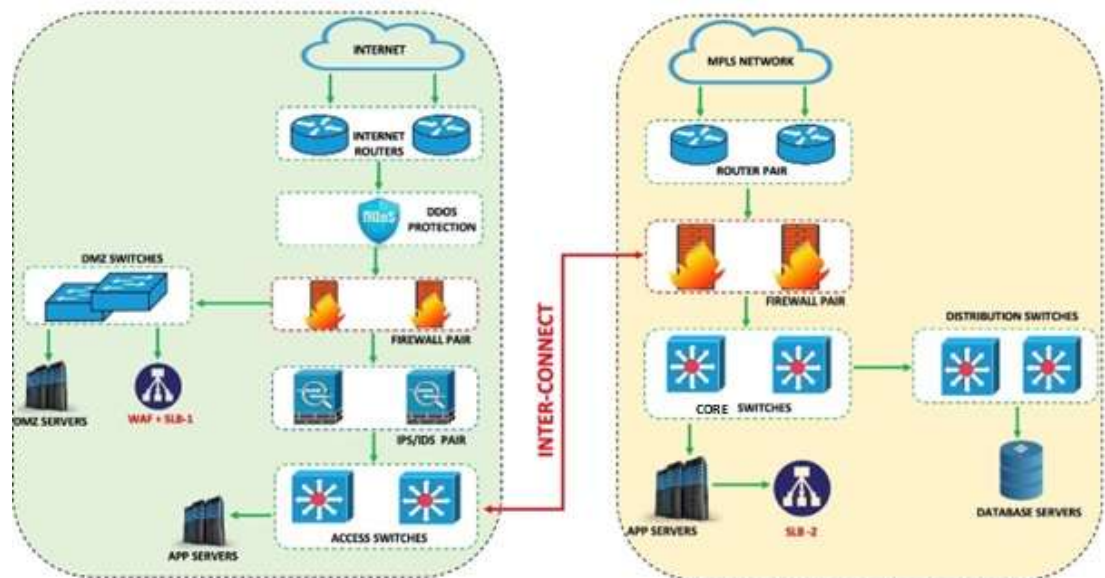


5.1.2. EXISTING NETWORK CONNECTIVITY AT FIELD OFFICES



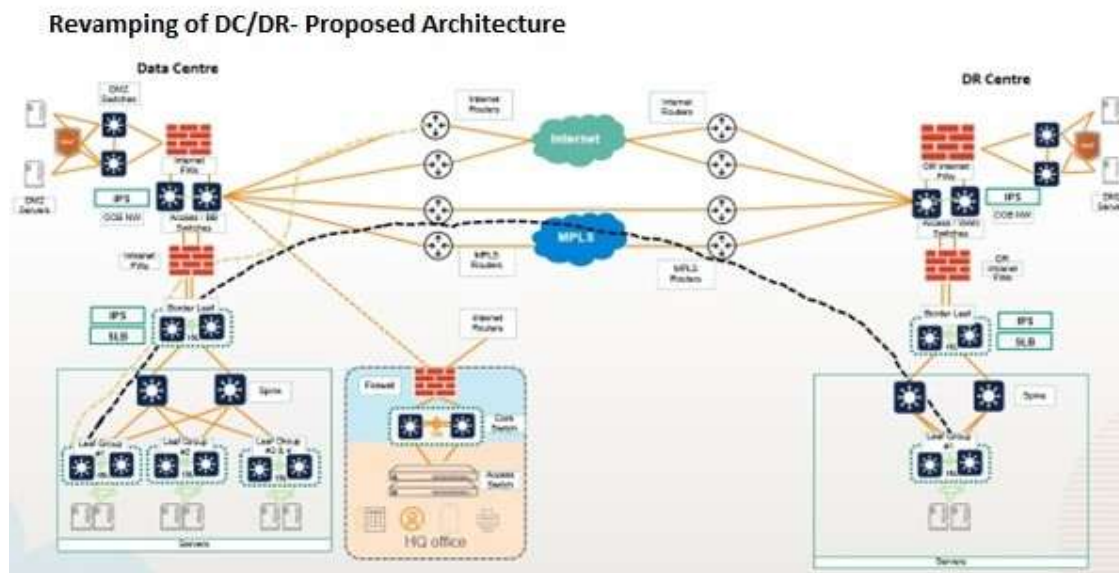
5.1.3. EXISTING NETWORK ARCHITECTURE AT DATA CENTRE / DR CENTRE

The following schematic describes the equipment housed in the Data Centre (DC), including routers, switches, firewalls, servers, SAN (Storage Area Network) storage, backup solutions, and other devices critical to the IT infrastructure. It provides a clear overview of the hardware components supporting the Data Centre's operations and their respective roles in the system.



The DR Centre located at Infopark, Cherthala is also having a similar architecture of IT infrastructure in terms of Servers, network equipment, security devices, Storage etc. The existing infrastructure at DC as well as DR is nearing obsolescence, especially the Servers, network equipments, Storage etc., which is pointing to the need for a revamping.

In view of the above, KSEB has invited RFP for revamping of the existing DC/DR IT infrastructure as per the following network architecture



The tender processes for carrying out the revamping of the DC/DR IT infrastructure as mentioned above are in progress and it is expected that the works will be completed within a period of 8 months from the date of LoA. Hence the successful bidder for SD-WAN shall have to setup the SDWAN network as per the present architecture which shall be reconfigured to work with the new architecture as and when the revamping works of DC/DR will be completed as per the ongoing RFP.

5.1.4. REVAMPING OF KSEB WAN

The following Business Function Requirements are to be met by the carrying out the revamping of the existing MPLS Network for setting up SD-WAN

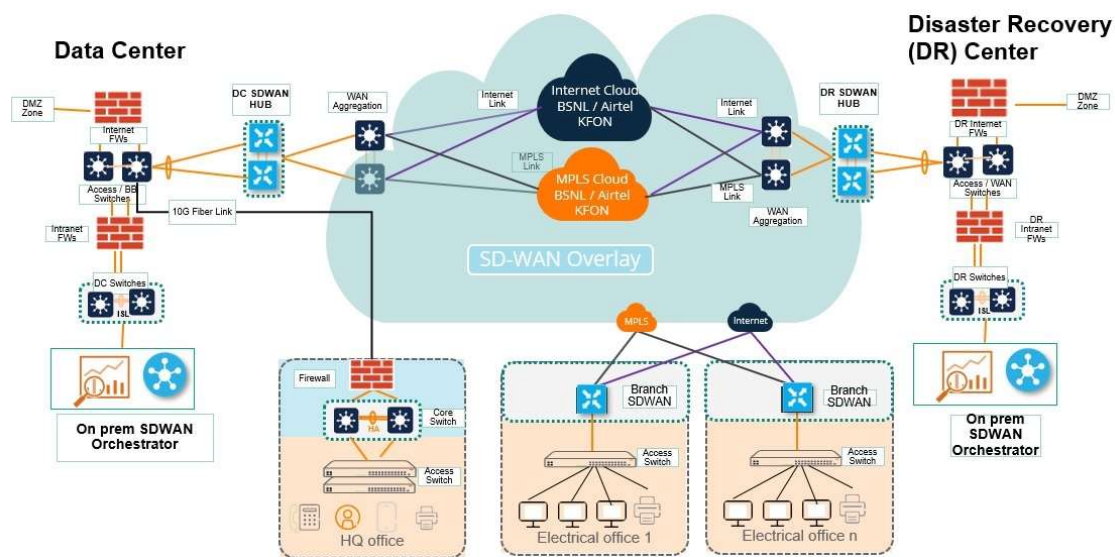
- 1) **Enhanced Performance and Capacity:** Increasing the network performance to handle growing volumes of data and increasing demand for digital services. This might involve replacement hardware at Data Centre/DR Centre and field offices and revamping of the network infrastructure.
- 2) **Improved Reliability and Redundancy:** Strengthening the WAN resilience against potential disruptions, such as power outages, natural disasters, hardware failure or cyberattacks. This could involve investing in disaster recovery measures, redundant networking equipment etc.
- 3) **Integrated advanced Security:** Implementing advanced cybersecurity measures to protect sensitive data from unauthorized access, data breaches, and other security threats. This might include implementing advanced encryption protocols, NGFW features, enhancing access controls and utilising advanced network protocols.
- 4) **Scalability:** Designing the WAN infrastructure to be easily scalable to accommodate future growth and technological advancements. This could involve adopting modular architectures, scalable hardware at Data Centre/DR Centre and field offices etc.
- 5) **Cost Efficiency:** Optimizing operational costs by improving energy efficiency, reducing maintenance overhead, and maximizing resource utilization. This might involve adopting green technologies, automating deployment, routine tasks and consolidating infrastructure resources to minimize wasted capacity.
- 6) **Supporting Innovation and Digital Transformation:** Providing a robust WAN base for innovation and digital transformation initiatives. This could involve facilitating the adoption of emerging technologies such as artificial intelligence, Internet of Things (IoT), and big data analytics.

- 7) **Compliance and Regulatory Requirements:** Ensuring compliance with relevant data protection laws, cyber security guidelines, industry regulations, and international standards. This might involve implementing data governance frameworks, conducting regular audits, and maintaining comprehensive documentation of data handling practices.
- 8) **Disaster Recovery and Business Continuity:** Developing and implementing robust disaster recovery and business continuity plans to minimize network downtime and data loss in the event of a catastrophic failure or unforeseen incident. This might involve implementing redundant hardware in active-active mode at Data Centre/DR, failover mechanisms, ensure strategies for replacement of failed equipment at field offices within a limited timeframe to ensure rapid recovery and uninterrupted service delivery.
- 9) **Supporting Economic Growth and Competitiveness:** Contributing to the country's economic growth and global competitiveness by providing a reliable and high-performance secure WAN infrastructure that attracts investment, fosters innovation, and enables businesses to thrive in the digital economy.
- 10) **Centralised Orchestration:** Centrally manages deployments, configurations, and operations with visibility, analytics, and reporting

5.1.5. PROPOSED SOLUTION COMPONENTS IN SD-WAN

The successful bidder shall carry out the Supply, installation, Configuration, Testing Commissioning, and warranty support for all components of SDWAN (hardware, software, license, firmware etc.) for establishing connectivity among the Data Centre, DR Centre and field offices in a phased manner as given in the project schedule.

KSEB SDWAN - Proposed Architecture



SDWAN solution shall have the following functional components:

1. **SD-WAN Controller / Orchestrator:** SD-WAN orchestrator is the tool that centralizes the management of Software Defined Wide Area Networks (SD-WANs). It automates the configuration and operation of SD-WANs, which can help improve network performance and security. This central management system shall provide a single interface with the capability for automation and coordination of network functions, and policy enforcement across the entire network. The Orchestrator Device installed at Data Centre/DR

Centre shall include all components like controller, orchestrator, manager etc. which may be one device or multiple devices hosting various components/tools/apps having following capabilities:

- Authentication of field office devices
- Policy pushing and management
- Pushing configuration to branch SDWAN device and headend devices.
- Templates creation, storage and management.
- Route manipulation and configuration management.
- Defining the policies and application aware routing.
- Monitoring headend and branch/edge devices

The SDWAN Orchestrator installed at the Data Centre and DR Centre (one unit each) shall configured in active-active mode in order ensure High Availability.

2. **Headend/Hub device at DC/DR:** The Headend/Hub/Gateway device is proposed to install at Data Centre/DR Centre for establishing IPSEC tunnel with branch device to forward data traffic. The devices shall at DR/DR shall be configures in High Availability.
3. **SDWAN Edge Router / Branch end device:** The SDWAN Edge router is responsible for routing traffic between the local network at field offices and the WAN. The edge devices shall be capable of making decisions about how best to direct data based on policies set through the Central management.
4. **Monitoring, dashboard, Reporting and Analytics Service:** A separate device(s) or services shall be functioning at the Data Centre for this purpose. This ability to intelligently manage traffic ensures that critical applications receive the bandwidth and priority they need, enhancing overall network performance and user experience.

The tentative hardware requirements for implementing the SD-WAN solution is furnished as follows

Sl.No	Hardware/Software	DC	DR	Field Offices
1	SDWAN Controller/Orchestrator/Manager	1	1	0
2	SDWAN Headend/Hub/Gateway	2	2	0
3	SDWAN Edge/Branch Router	0	0	890
4	Monitoring, Dashboard, Reporting & Analytics service	1	0	0
5	WAN Aggregation Switches – 24 x 1Gbps RJ45 Ports and 4x10Gbps uplink ports, stackable	2	2	0
6	Layer-2 Switch for field offices- 24 x 1Gbps RJ45 Ports, 4x1 Gbps uplink Ports	0	0	890

MPLS/Internet Connectivity available at various office locations

S/N	Location	Connectivity		
		MPLS	ILL	FTTH
1	Data Centre	BSNL-100Mbps Airtel-100Mbps KFON-500Mbps	BSNL-100Mbps Airtel-50Mbps KFON-200Mbps	Airtel-300Mbps
2	DR Centre	BSNL-20Mbps Airtel-20Mbps	BSNL-15Mbps Airtel-15Mbps	-
3	Field offices	BSNL-2Mbps Airtel-2Mbps KFON-100Mbps	-	BSNL-100Mbps KFON-100Mbps

5.2. SCOPE OF WORK

5.2.1. SURVEY AND ASSESSMENT

Conduct a comprehensive survey of the existing MPLS WAN and DC/DR components

- **Hardware Evaluation:**
 - Review of network components, Servers, storage systems and power systems to ensure optimal network performance
- **Software & Applications:**
 - Assessment of operating systems, applications etc. for efficiency, compatibility, and security.
- **Network Architecture:**
 - Analysis of network topology, bandwidth usage, latency, and redundancy for optimized connectivity and fault tolerance.
- **Security Infrastructure:**
 - Comprehensive review of firewalls, access controls, encryption mechanisms, and vulnerability management to ensure robust security measures are in place.
- **Disaster Recovery & Business Continuity:**
 - Analyse current disaster recovery plans, and failover systems to ensure resilience and minimal downtime in case of disruptions or disaster
- Assess the suitability and availability of proposed SDWAN infrastructure for integration with existing DC/DR as well as revamped DC/DR IT Infrastructure
- Assess short-listed potential areas for service rollout.

5.2.2. SD WAN DESIGN AND PLANNING

Develop a detailed design, integration and migration plan

- **Infrastructure Architecture:**
 - Design the overall architecture including network systems, security systems etc. to ensure optimal performance, scalability, and redundancy including rack design
- **Network Design:**
 - Develop a robust SWAN topology that supports high bandwidth, low latency, and redundancy, with clear paths for internal and external connectivity, load balancing, and failover mechanisms.
 - Optimal Integration with existing/revamped DC/DR, MPLS WAN, HQ network, field offices etc.
 - Co-existence with MPLS WAN- During the period of implementation till completion of migration of all field offices, the proposed SDWAN shall co-exist with the existing MPLS WAN in order to ensure uninterrupted network uptime.
- **Integration & migration:**
 - Develop and submit a comprehensive plan to setup the SDWAN network in parallel with the MPLS WAN integrate DC/DR network infrastructure to the SDWAN so as to enable parallel operation for a specific period and then facilitate for the migration of field offices to new infrastructure in a phased manner without downtime for the critical services.
- **Security Framework:**
 - Integrate with existing security solutions like DDoS, IDS/IPS, NGFW, WAF etc. and overall Organisation security policies
- **Disaster Recovery & Business Continuity:**

- Design a comprehensive disaster recovery plan for network availability, failover systems and high availability to minimize downtime and ensure quick recovery in case of disruptions.
- Compliance & Governance:
 - Ensure the design meets regulatory and industry standards (e.g., ISO, GDPR) for data security, privacy, and operational procedures.
- Submit the following documentation:
 - SDWAN Solution Design Document including HLD/LLD
 - Implementation /Migration Plan

The above mentioned documents/plan will be finalized after joint discussion with KSEB officials and OEM. The implementation/migration shall be started only after approval of the above documents from the KSEB. Bidder has to start OEM engagement immediately after receiving of LoA and has to submit the plan within 2 weeks from the date of LoA.

5.2.3. SDWAN INSTALLATION, CONFIGURATION AND INTEGRATION

- **Supply, Install, Implement, and Test DC and DR WAN infrastructure**
 - Hardware Installation:
 - Install SDWAN Headend Systems, Orchestrator/Controller and other physical components based on the approved infrastructure design.
 - Network Configuration:
 - Set up and configure the network topology and parallel integration with Bandwidth providers, switching architecture, routers, firewalls, and load balancers, ensuring connectivity, redundancy, and optimized traffic management.
 - Disaster Recovery Setup:
 - Implement disaster recovery mechanisms, and high-availability configurations to ensure data integrity and minimize downtime in case of system failure.
- **Delivery and deployment of hardware at DC/DR:** Bidder shall engage on-site OEM Professional Services to deploy and configure all Data Centre/DR components across as specified in the technical specifications. Deployment of DC hardware, OS installation, configuration, integration with different specified tools should be completed within 2 weeks after the delivery of hardware equipment.
- Bidder has to carry out the following task in Data center during deployment
 - Device unpacking & mounting in designated racks (rack space and device power will be provided by the KSEB)
 - Power On Self Test (POST) of all Data Centre devices
 - All cabling laydown required in the Data Centre for SDWAN solution including connector, Cables, Fiber patch cord, check nuts, compatible SFP (SFP for SDWAN devices) etc. shall be provide by the bidder.
 - All required data cabling for installation of the DC/DR components of SDWAN shall be under the scope of the bidder.
- **Phase-I Implementation – First 300 field offices:** On site OEM Professional Services shall be utilized for completing the migration of Data Centre, DR Centre and first 300 field offices (of different categories as provided by the KSEB) within 8 weeks from the date of LoA and shall prepare all necessary templates as per these different offices categories.
- The responsibilities of onsite OEM/bidder professional services team, engaged for the installation and commissioning of the solution, shall include the following:
 - Installation and configuration of all the DC/DR components

- Migration of first 300 field offices to SDWAN
 - Resolution of all the issues faced during commissioning of solution or migration of first 300 field offices.
 - Submission of all the documents and SOPs as detailed in below points.
 - Training session for migration of remaining field offices.
 - Security clearance of the solution, implementation of SCD (secure configuration documents) etc. as per the observations given by KSEB's Information Security Team
- **Delivery and installation of field office hardware:**
 - Bidder shall be responsible for installation and migration of 300 field offices spread across various Circles all over Kerala (Separate list will be issued to the successful bidder).
 - Bidder shall migrate all 300 field offices within 2 weeks after deployment of Data Center devices
- The bidder's responsibilities during the installation activity shall include but not be limited to –
- Unmounting of existing device
 - Unboxing of the delivered device
 - Mounting of the delivered device onto the rack
 - Required cabling activities, such as plug out from existing device, plug in to the new device, any new cabling requirement etc.
 - Any other activities required to install the delivered device.
 - Make the required configuration changes.
 - Provide remote to the central team.
- All the issues during migration of 300 field offices shall be resolved by OEM onsite PS team. All such issues and resolution shall also be recorded by OEM PS team and needs to be shared with the KSEB. A field office migration shall be considered as successful only when field office is operating without any issue for a period of 15 days from the date of migration.
 - The Downtime for the field office migration will be provided after office hours as per the discretion of KSEB.
 - Post successful migration of the first 300 field offices, OEM shall submit following updated documents within 1 week to the KSEB as per the required format given by the KSEB:
 - Solution Document
 - High Level Design
 - Low Level Design
 - The following SOP documents for Edge devices, Headend and Central Orchestrator/manager/reporting tool should also be provided.
 - Integration of New field office
 - Integration of new Headend device
 - Integration of new Central Orchestrator/manager/reporting tool
 - Troubleshooting guide for day to day operation
 - Template creation for different feature sets
 - Commissioning of SDWAN solution at DR Centre
 - Generation of all required reports
 - Patch management of all SDWAN solution components
 - Backup management of all SDWAN solution components
 - Restoration from backup
 - OS upgradation for all SDWAN solution components
 - Business Continuity Plan
 - DC/DR/Active/Standby switchover and rollback
 - The OEM/Bidder shall also carry out a detailed technology transfer session regarding the above.

- **Phase-II – Migration of remaining field offices:** Installation and migration of remaining field offices (around 590 locations) shall be carried out by KSEB IT team at respective locations within the subsequent period of 4 months after Phase-I deployment. Required support at DC level including template creation, configuration etc. shall be provided by the OEM/bidder. The configuration in Data Centre devices for the migration of all the remaining field offices (around 590) shall be done under the supervision of OEM within one week, after completion of the deployment of first 300 field offices by OEM/bidder PS team. All activities related to the migration of Phase-II offices shall be completed within 8 weeks from the date of LoA. The Downtime for the field office migration will be provided after office hours as per the discretion of KSEB.
- All issues during and after migration shall be resolved by the bidder/OEM within the time limit. A field office migration shall be considered as successful only when field office is operating without any issue for a period of 15 days from the date of migration

5.2.4. COMMISSIONING & ACCEPTANCE

1. Date of Commissioning of Phase-I shall be considered on the day when the below tasks are completed-
 - Installation and deployment of all Data Centre components.
 - Integration with all existing and required tools.
 - Fully functional MIS, Reporting and Dashboards.
 - Migration of 300 field offices
 - Submission of all concerned technical documents
2. KSEB will provide commissioning and acceptance report for minimum 50 field offices or in multiples of 50. Bidder shall submit signed installation report from the field offices through the System Administrator/System Supervisor concerned for every installation.
3. **Acceptance:** Acceptance of the total Solution will be provided by the KSEB to the bidder after migration of all the 890 allocated field offices and accomplishment of all stated below task.
 - The bidder has to submit certificate from OEM to the KSEB after thorough examination stating that all Data Center components deployment, templates created, reporting and configuration of Fifty (50) Sample Field offices(given by the KSEB) migrated by bidder are as per the OEM recommended best practices, after migration of all allocated 890 field offices.
 - All the points specified in the technical specifications of this RFP are matched.
 - The solution shall be thoroughly tested against the following (but not limited to) set of test cases for acceptance.
 - Active-Passive failover test for all the DC/DR components.
 - Power failure test.
 - Link failure test i.e., to avoid the single point of failure, the cables may be jacked out/in off the device, there should be no production impact. Howsoever, the respective alarm must be generated for the same.
 - Synchronization test between the HA component and geographical redundant devices.
 - Network Performance: Conduct network tests across all network segments (LAN, WAN, VPN) to verify optimal data flow and identify potential bottlenecks
 - Monitoring Tools: Validate that monitoring tools are correctly configured to track key performance metrics, resource usage, and security incidents.
 - Alerting Mechanisms: Test alerting systems to ensure timely notifications in case of performance issues, security breaches, or hardware failures.

4. **Onsite Resource:** The bidder shall provide one dedicated onsite L2/L3 resource at the Data Centre for a period of one year from the date of commissioning and go-live for providing post implementation support on all working days from 9am to 6pm. The onsite resource shall have professional certification in SD-WAN with at least 3 years of experience in setting up and maintaining Wide Area Networks. Prior approval of KSEB shall be sought for appointment of the above personnel at the Data Centre. The responsibilities of the Onsite Resource must include, but not be limited to, the following –

- Attend, Coordinate and Rectify all support activities/cases at Data Centre for addressing issues related to the SDWAN implementation and maintenance at DC/DR and field offices
- Raising a TAC case on behalf of KSEB.
- Onboard the relevant teams (of OEM or bidder) for support as per requirement.
- Getting the relevant updates / upgrades for the solution components and the required support for installation / application of the same.
- Resolution of any VA points by way of bug fixes, security updates etc. this shall include development of any new patches / bug fixes as required.
- OS upgradation suggestions and recommendations according to the KSEB's environment.
- Periodic assessment and suggestion regarding upgradation, mitigation of repetitive issues, possible threats, effective compliance check, better visibility and controls etc.
- Periodic assessment and suggestion for architecture flaws during the support period.

5.2.5. WARRANTY

On-site comprehensive warranty: The warranty shall be on-site and comprehensive in nature with back-to-back support from the OEM. The bidder shall warrant all the hardware and software against defects arising out of faulty design, materials and media workmanship etc. for a period of 5 years from date of Date of Installation. Warranty period starts from the Date of commissioning and SLA will be applicable as per the conditions given in Clause.7

The bidder shall also provide support for Operating Systems and other preinstalled software during the warranty period of the hardware on which this software & operating system will be installed.

The bidder shall repair or replace the worn out or defective parts including any auxiliary component/equipment (active or passive devices) at their own cost including the cost of transport.

5.2.5.1. EXTENDED WARRANTY:

Bidder shall be liable to provide Extended Warranty for a period of two years on expiry of the 5 year warranty period, if KSEB desires so at that point of time. The Extended Warranty would be on-site and comprehensive in nature with back-to-back support from the OEM. All support terms and conditions of Warranty shall be applicable for the Extended Warranty also.

Note: The Warranty and Extended Warranty should have back to back OEM Premium (Highest level) active support and supporting documents for the same should be provided for releasing of respective payments. Further, all the obligations of the warranties should be covered during the contract period including replacement of the devices & its parts.

5.2.6. INTEGRATION & MIGRATION

- The revamped SDWAN shall be integrated properly with the existing network & security infrastructure (DDoS, IDS/IPS, NGFW, WAF etc.) in the Data Centre/DR Centre
- Implement seamless communication with existing/revamped DC Infrastructure so as to facilitate secure access to the software Applications hosted in the DC from field offices through the SDWAN
- Configure and implement required policies for providing secure & restricted Internet access with Content/URL filtering for field office users through the FTTH connectivity available at field offices
- Enable parallel operation of MPLS WAN and SDWAN till completing the migration of all field offices

5.2.7. POST IMPLEMENTATION SUPPORT, MAINTENANCE AND UPGRADES

- 1) Bidders shall support the SDWAN Solution and its associated items/components including OS/firmware during the period of Warranty/Extended Warranty as per the provisions of SLA specified in this RFP.
- 2) During the warranty period, Service Provider will have to undertake comprehensive support of the entire Product (hardware/components/ operating software/firmware) supplied by them at no additional cost to KSEB. During the support period (warranty), bidder shall maintain the Product (hardware/ software, etc.) to comply with parameters defined for acceptance criteria and bidder shall be responsible for all costs relating to labour, spares, maintenance (preventive and corrective), compliance of security requirements and transport charges from and to the designated site(s) in connection with the repair/ replacement of the Product (hardware/ equipment/ components/ software or any component/ part thereunder), which, under normal and proper use and maintenance thereof, proves defective in design, material or workmanship or fails to conform to the specifications, as specified.
- 3) During the support period, bidder shall ensure that services of professionally qualified personnel are available for providing comprehensive on-site maintenance of the Product and its components as per KSEB's requirements. Comprehensive maintenance shall include, among other things, day to day maintenance of the system as per OEM guidelines, reloading of firmware/software, compliance to security requirements, etc. when required or in the event of system crash/malfunctioning, arranging and configuring facility as per the RFP, fine tuning, system monitoring, log maintenance, etc. In case of failure of Product (hardware, system software or any of its components), bidder shall ensure that the Product is made operational to the full satisfaction of KSEB within the given timelines.
- 4) On site comprehensive warranty for the Product would include free replacement of spares, parts, kits, resolution of problem, if any, in the total solution.
- 5) Support would be on-site and comprehensive in nature and must have back-to-back support from the OEM. Bidder warrants Products against defect arising out of faulty design, materials, etc. during the specified support period. Bidder will provide support for operating systems and other pre-installed software components/system software during the specified period of the hardware on which these software and operating system will be installed. Service Provider shall repair or replace worn out or defective parts including all active/passive components of the Equipment at his own cost including the cost of transport.
- 6) In the event of system break down or failures at any stage, the following measures shall be ensured by the bidder:
 - Diagnostics for identification of systems failures
 - Protection of data/ Configuration
 - Recovery/ restart facility

- Backup of system software/ Configuration
- 7) Prompt support shall be made available as desired in this RFP during the support period at the locations as and when required.
- 8) The support staff should be well trained to effectively handle queries raised by the employee(s) or authorized user(s) of KSEB.
- 9) Updated escalation matrix shall be made available to KSEB once in each quarter and each time the matrix gets changed.

5.2.8. COMPLIANCE AND REGULATORY REQUIREMENTS

- Ensure the design and implementation meets regulatory and industry standards (e.g., ISO, ISMS, GDPR etc.) for information/cyber security, privacy, and operational procedures.

5.2.9. DOCUMENTATION AND REPORTING

- Maintain detailed documentation of the WAN infrastructure, configurations, and system specifications.
- Prepare regular progress reports, including project milestones, implementation status, and key performance indicators.
- Provide comprehensive documentation and handover materials to facilitate future operations and maintenance.
- In addition, provide documentation standards for SDWAN Architecture diagrams, configurations, and operating procedures; reporting requirements, including progress reports, milestone updates, and key performance indicators; and system documentation.

5.2.10. PROJECT MANAGEMENT

- Assign a dedicated Project Manager onsite responsible for overseeing and coordinating all project activities.
- Develop a detailed project management schedule with clear milestones, timelines, and deliverables. A suitable project management tool shall be used to monitor the progress of implementation
- The project management schedule shall be submitted to KSEB Nodal Officer for approval.
- Conduct regular project meetings and maintain open communication channels with all stakeholders to ensure that timelines are met.

5.2.11. SPARES & RMA FOR DATA CENTRE/DR CENTRE

RMA of Controller and Headend Systems (Brand New) should arrive within 6 hour at the Data Centre/DR Centre irrespective of the day and time including holidays 24x7x365.

5.2.11.1. SPARES & RMA FOR FIELD OFFICES

Faulty devices at field offices shall be replaced immediately by the bidder from the respective location within the timelines as per the SLA Agreement. The faulty devices shall be taken back by the bidder from the field office.

The responsibility of collecting the faulty device from the field office and delivering and installing the new device shall lie entirely with the Bidder including packing and transportation, for which no extra cost shall be paid by the KSEB.

Bidder shall provide 30 spare Edge Routers for IT Sub Units of KSEB. At present, there are 10 IT Sub Units of the KSEB, where the spare devices will be kept. The address details of all such locations will

be provided to the successful Bidder at the time of placing the LoA. The spare shall be either used for the newly formed field offices or it can be used as emergency spare.

5.2.12. TRAINING & CERTIFICATION

- The bidder shall ensure comprehensive certification training to be conducted by the OEM for 10 KSEB officials within a period of 3 months from the date of commissioning of the project.
- The necessary study material for training shall be arranged by the bidder. The bidder shall provide all necessary means and expenses for SDWAN training (up to Expert level) to the KSEB staff without any extra cost to KSEB.
- The bidder shall provide a comprehensive training plan from Basic level up to Expert level (Highest). This should include all relevant study materials, lab access, etc. to carry out the training for the designated KSEB officials.
- The bidder shall ensure that training shall be offline (in-person) and shall include hands-on training session and labs along with theoretical sessions. A suitable venue for training shall be arranged by the Bidder after consultation with KSEB.
- The bidder shall ensure that training session should be conducted by OEM certified professional trainer / professional services resource.
- Cost of training material, trainer fees, accommodation and travel of trainer, training site and certification cost etc. shall be borne by the Bidder.

5.2.13. POC AS PART OF TECHNICAL EVALUATION

- All the bidders are required to conduct PoC for 5 field offices for one week during the Technical Evaluation phase as per discretion of the KSEB for demonstrating all technical and functional compliance as specified in the RFP without any additional cost to the KSEB.
- The PoC conducted will be deemed as a failure when the solution proposed by the bidder is not in accordance with any of these major SDWAN functionalities required as per this RFP clauses and mentioned below. The detailed technical requirements are in the Technical Specifications section of this RFP.
 - 1) Field offices can utilize both primary and secondary WAN links simultaneously.
 - 2) Application-wise traffic routing can be configured.
 - 3) Load-balancing mechanism (Packet, Session based)
 - 4) Quality of Service (QoS) can be implemented at the Data Center device and field offices without any dependency on the service provider.
 - 5) Vulnerability Assessment (VAs) and Secured Configuration Documents (SCDs) can be implemented from the central site.
 - 6) Latency, packet loss, and jitter can be monitored and auto switching to and from one to another link based on SLA violation.
 - 7) Asymmetric (origination and return path are not same) traffic flow can be avoided.
 - 8) A centralized dashboard should be available for monitoring, command & control and management of alerts.
 - 9) Integration with different reporting, monitoring, ticketing etc. tools
 - 10) Any other functionality insisted by KSEB as per RFP during PoC
- In the event of the failure of the Proof of Concept and demonstration, the bid submitted by such bidder shall not be considered for any further bid evaluation and will be rejected

5.2.14. INDICATIVE BILL OF MATERIALS

5.2.14.1. INDICATIVE BILL OF MATERIAL AT DC, DR AND FIELD OFFICES

The following is an indicative bill of materials required to carry out the revamping works as per the RFP specifications at DC, DR and Field Offices from Day 1

Sl.No	Item	Qty
Data Centre		
1	SDWAN Controller/Orchestrator/Manager	1
2	SDWAN Headend/Hub/Gateway Device	2
3	Monitoring, Dashboard, Reporting & Analytics service	1
4	WAN Aggregation Switch - 24 x 1Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2
5	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the Data Centre	1
6	Man power charges (L2/L3 resource) for one year at Data Centre	1
DR Centre		
7	SDWAN Controller/Orchestrator/Manager	1
8	SDWAN Headend/Hub/Gateway Device	2
9	WAN Aggregation Switches - 24 x 1 Gbps RJ45 Ports, 4 x 10Gbps SFP+ uplink Ports, Redundant Powersupply, with stackable	2
10	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the DR Centre	1
Field Offices		
11	SDWAN Edge/Branch Router for field offices	890
12	SDWAN Edge/Branch Router - Spare	50
13	Layer-2 Switch for field offices – 24 x 1Gbps RJ45 Ports, 4 x 1Gbps SFP ports	890
14	Supply, installation, configuration, integration, testing, commissioning and go-live of all hardware and software components in the field office	300

Note:

1. The BoQ items mentioned above are indicative only. The bidder is liable to provide additional items/services/accessories required, if any, for providing all required features/functionalities/services mentioned in the Scope of Work
2. **Cyber Security Compliance:** All products (hardware/software) quoted by the bidder shall comply with the statutory guidelines of Government of India related to Cyber Security, industry standards etc.

5.2.15. LIST OF BUY-BACK COMPONENTS FROM FIELD OFFICES

The following table shows the list of network devices to be taken back by the bidder on buy-back basis from field offices, as part of the supply of SDWAN components:

Sl.No	Specifications	Qty	Present status
Field offices			
1	MPLS Router - HP A-MSR 3020 Router	846	Working in good condition
2	MPLS Router – HPE-MSR 1002 4AC	31	Working in good condition
2	Layer II Switch - HP 3600-24 – 24 x 1Gbps RJ45 Ports	400	Working in good condition

5.2.16. INDICATIVE BILL OF MATERIAL DURING NEXT FIVE YEARS (UPGRADE BASED ON DEMAND)

The following is an indicative bill of materials that will be required to scale up the SDWAN solution during the first five years of the Contract Period (from the date of go-live) for which PO will be issued based on the Utility's demand. The below list will also be considered for price discovery and price bid evaluation purposes.

Sl.No	Specifications	Qty
Field offices		
1	SDWAN Edge/Branch Router with required license	400
2	Layer-2 Switch for field offices – 24 x 1Gbps Copper Ports, 4 x 1Gbps SFP ports	50

5.2.17. TECHNICAL SPECIFICATIONS

Secure SDWAN General Features

5.2.18. SECURE SD-WAN SOLUTION SPECIFICATIONS:

The main requirement for the Secure SD-WAN Solution is as follows:

- Provide a SD-WAN solution which is L7 application-aware, offers automatic WAN path control and multi-WAN underlay support along with NGFW security.
- NGFW Feature along with Real-time SSL/TLS Inspection capabilities and Layer 7 Firewalling / Application Control for Branch offices.
- SD-WAN solution should have self-healing capabilities for enhanced user experience.
- Simplified operations with NOC/SOC management and analytics
- Enhanced Granular Analytics for end-to-end visibility and control.
- Should have Security features like Anti-Malware, URL Filtering, IPS and Botnet protection.

Specifications for Secure SD-WAN Solution			
Sl No	Features/Specifications	Complied Yes/no	Remarks
Standard Specifications			
1	The proposed SD WAN Solution should be implemented as true software defined network architecture with a centralized control/management plane residing in the SDWAN controller/Manager/Orchestrator with logical separation of control/management and data plane. It shall integrate different types of connectivity (MPLS, ILL, FTTH, Broadband, LTE) into a single, end-to-end framework that uses policies to manage traffic		
2	The Hub and Branch CPEs should have SD-WAN features and Layer 7 Firewall / Application Control features on the same appliance.		
3	The solution should offer flexible architectures: Hub-to-Spoke (partial mesh), spoke-to-spoke (dynamic full mesh), Multi-Hub, Multi-Region, & DIA (Direct Internet Access) / RIA (Remote Internet Access) for the branches		
4	The Hub and Edge/Branch CPE appliance should have the same OS and license features across its Hub and branch locations.		
5	The Hub and Edge/Branch CPE Appliance should have the hardware and software supplied by the same SDWAN Vendor and the TAC support for both hardware and software should be by the same SDWAN Vendor.		
6	All traffic processing components of the SD-WAN solutions should support High Availability (HA) wherever necessary and indicated		
7	If any of the features and Bandwidth listed in this RFP requires license, the licenses should be provided for all devices for the entire period of contract.		
8	The proposed solution should meet the minimum requirement of bandwidth along with future scalability		
9	The Hub and Edge/Branch Devices should be supplied with Advanced Security features like IPS, AntiMalware, AntiBotnet, and Malicious URL filtering and should support the requested bandwidth.		
10	All the device should be able to support Standards based IPsec (IKEv1 and IKEv2) connectivity with a third-party device already deployed in the Organisation's network.		
11	The device should be able to support Standards based IPsec (IKEv1 and IKEv2) connectivity from a Remote IPsec Endpoint PC/Laptop. Any licenses to be provided along with the solution.		
12	Should provide BGP attributes like Weight, Local Preference, Originate, AS Path Length, Origin Code, MED etc and other BGP features like Community tags.		
13	All the components of the SDWAN solution should be hosted On-premises. None of the Organization's Business data should go to the OEM Premises or Cloud under any reason (which includes logging & scanning for AntiMalware).		
14	SD WAN edge, Software, hardware and security features must be provided by same OEM. Centralized configuration,		

	monitoring and reporting module must be common for both security and SD WAN module.		
15	All licenses of the Branch CPE should be validated with Centralized Management / Orchestrator / Controller platform		
SD-WAN Specifications			
16	The SD-WAN solution should have multi-WAN underlay support (MPLS, DIA, Broadband, LTE, VSAT etc), multiple active-active Overlay tunnel support.		
17	The SD-WAN solution should have Intelligent WAN path control feature with ability to direct traffic among WAN links based on the actual applications (L7) and users/user groups by configuring Granular Application policies and Application SLA based path selection. Should support active/active and active/standby path forwarding.		
18	The solution should support around 5000+ application signatures to achieve application visibility for efficient SD-WAN packet steering.		
19	The solution should support configuring custom application signatures and use it for SDWAN Steering.		
20	The solution should support on-device SSL/TLS decryption, including decrypting TLS v1.3 traffic, to identify Custom applications based on its Layer 7 signatures and not based on IP address. This information should be used to successfully perform SDWAN steering of Custom HTTPS application traffic.		
21	The SD-WAN Multi-path intelligence using rules should be defined by the following parameters: - Source IP address - Source MAC address - Destination IP address, Route Tag, ToS - Selection of over 5,000+ applications, application groups and Application Category - Protocol and ToS bits - path selection using particular link quality criteria or SLAs defined		
22	Should support the following WAN load balancing algorithms: Bandwidth based, source-destination IP, Source IP, and round-robin.		
23	The solution should have the capability to measure application transactions (SLAs) such as latency, jitter, and packet-loss with built-in automatic fail-over to determine preferred paths and maintain the optimal application performance of business-critical applications.		
24	Should support Active SLA probes for multiple protocols like Ping, TCP/UDP echo and HTTP		
25	The Active Probe Check interval should be configurable as low as 20 ms so that it can help in seamless failover of real-time traffic like VoIP and Video Conferencing.		
26	The Performance SLAs fail, and pass events should be logged for long term analysis as well as monitored through REST API		
27	The solution should support Dynamic Forward Error Correction (FEC) for packet loss compensation on the overlay. The Error Correction packet size should automatically & progressively increase with increase in packet loss, so that the bandwidth is		

	conserved when there is less or no packet loss. It should have the capability of being selectively applied to a particular traffic. This is a remediation feature and is mandatory as some branches can have single links of LTE/VSAT which can have packet losses for prolonged period.		
28	The solution should support On-demand Packet duplication across two or more links to support uninterrupted, zero packet-loss transmission of real-time critical traffic. On-demand feature of Packet duplication ensures that it gets enabled only when the SLA fails on the selected link.		
29	The CPE device should support Traffic Shaping based on bandwidth limits per application, or per User, prioritize application traffic per WAN link, mark/remark DSCP bits for influencing traffic QoS on egress devices, application steering based on ToS marking, Differentiated Services (DiffServ) support and Weighted Random Early Detection (WRED) queuing mechanism.		
30	The solution should have the ability to apply Interface based Traffic Shaping based on percentage value (for eg: 60% for critical traffic and 40% for non-critical traffic), for both Ingress and Egress traffic of the Branch interface. It is pertinent that Ingress Interface based Traffic Shaping should work perfectly fine as this usually causes congestion.		
31	Critical & Non-critical traffic should be allocated traffic shaping rules based on the percentage of link bandwidth capacity of the branch. Traffic shaping should be applied only when the link is congested.		
32	The SD-WAN solution should support Static routing, Internal Gateway (iBGP, OSPF v2/v3 , RIP v2), External Gateway (eBGP), VRF, route redistribution, route leaking, BGP confederation, router reflectors, summarization and route-aggregation, route asymmetry		
33	In case of a change in WAN IP Address (Private/Public) the SD-WAN solution shall detect and rebuild the VPN tunnel without manual VPN configurations		
34	The solution should support advanced features of BGP like advertisement of multiple paths (RFC 7911) and adapt to changes in SD-WAN link SLAs like sending a different route-map to an upstream third-party BGP neighbour when IP SLA is not met		
35	SDWAN devices should support 802.1x		
36	The centralized management solution shall have NMS capabilities and shall support network wide device and network visibility for all the devices in the terminated on the devices irrespective of the type of link (MPLS, broadband, FTTH, ILL, SIM etc). The NMS solution shall have capabilities including but not limited to TCP dump, ping and traceroute. Device should be equipped with the features like Visualize in real-time, graphs and reports, WAN Link utilization, Detailed bandwidth usage of applications, Link wise WAN Link Latency, jitter and packet loss, SLA monitoring, Appliance utilization, availability		

37	All types of alarms, Application performance monitoring. In case of performing any trouble shoot, the solution should have trouble tracking tools such as TCP dump, ping, traceroute etc.		
38	The solution shall store historical traffic and performance information for at least 3 months to assist with trouble analysis, traffic forecasting and SLA compliance. The solution shall have the capabilities to define, monitor and report SLA of the WAN links.		
39	The system shall automatically measure the link SLAs without any manual configuration on the devices		
40	The solution shall support email based alarm to notify the administrators when any device/link fault or network performance degradation happens.		
41	The solution should support end-to-end VRF based segmentation over a single overlay tunnel along with SDWAN based traffic steering and SLA management (multiple VRFs over a single overlay).		
42	The SD-WAN solution should support Branch-to-Branch On-demand Encrypted overlay tunnels – i.e. dynamic VPN tunnels between spoke locations. It is important that the branch-to-branch tunnels should be on-demand so that the resources would be minimally used when compared to the always-on full mesh tunnels. The branch-to-branch tunnels should automatically tear-down, when there is no traffic.		
43	These branch-to-branch tunnels should have automatic SLA tracking, which can help to fail-over to a different tunnel created on-demand over a different underlay, in case of occurrence of brownout condition.		
44	The solution should have the capability of forming multiple concurrent Branch-to-Branch tunnels between two field offices and should support various traffic steering strategies over these overlay tunnels, like active-standby, Best Quality and load balancing.		
45	The SD-WAN solution should support Multicast forwarding, PIM sparse (rfc 4601), dense mode (rfc 3973), PIM rendezvous point, with support for Multicast traffic based application steering		
46	The solution should support end-to-end IPv6 on both LAN, WAN and on the overlay.		
47	The solution should support identifying and steering IPv6 application		
48	It should also support Zero Touch Deployment of Branch CPE device Edge in a closed network using mechanisms like USB boot.		
49	The device should be managed and orchestrated with a Centralized Management / Orchestrator / Controller platform which have an option to be deployed as an On-prem VM or hardware appliance		
50	The Centralized Management / Orchestrator / Controller should be a single plane of glass solution to manage the SD-WAN and Security features, streamline provisioning and management, extensive automation-enabled management features and for Enhanced Analytics		

51	The edge devices should connect securely with the Centralized Management / Orchestration solution with Two-factor validation. The validation should be revoked on-demand for missing / lost CPE devices.		
52	The SD-WAN solution shall co-exist with non-SD-WAN sites on the any type of network with standard deployments topologies which may send traffic directly between the SD-WAN and Non-SD-WAN through routing protocols.		
NAT			
53	The SD-WAN solution shall support NAT and port forwarding of all LAN side prefixes.		
54	The SD-WAN solution shall support source NAT on location subnets to allow overlapping location subnet to communicate to the datacenter. Also, the solution shall support LAN side destination NAT for simplicity of redirecting traffic		
Advanced Security Specifications for Field Offices			
55	The SDWAN CPE Devices at Branches should have Basic Security features like Zone based Firewalls, Layer 7 based Firewall / Application Control, SSL Inspection and Advanced Security features like IPS, AntiMalware, AntiBotnet, and Malicious URL filtering. If these features require license, it should be provided for the complete period requested.		
56	The Firewall should support IP, FQDN, Device based, MAC based, and User/Group based policies		
57	Firewall Rules should support User/User-Group based policies which are obtained through integration with MS-AD, LDAP and RADIUS based Wireless Authentication server.		
58	Should have the facility to configure Firewall rules based on Geo IP Source or Destination		
59	The Devices should support retrieving External Block list for Domain Names, Web Filtering URLs, IP Address and Malware Hashes as an Object/Profile settings, which can be conveniently used in the Firewall policies. This helps in ingesting external IOCs in an easy way and blocking them on the Firewall policy.		
60	Should support IPv4 and IPv6 Rate based DOS protection with threshold settings		
61	The Hub CPE should have Hardware based DDoS Host Protection, which can mitigate DDoS attacks directed towards the appliance over the Hardware, without any impact to the CPU.		
62	The Firewall should detect 5000+ of applications over Layer 7 with the capability of Whitelisting / Blocking applications for certain hosts		
63	The Firewall should support of classifying applications based on the category they belong to (For e.g. VoIP, Video/Audio, Business, Remote Access etc.) from day one		
64	The Layer 7 Firewall should provide Custom application signature support		
65	Should support both TLS certificate only inspection as well as full TLS inspection of sessions, including TLS v1.3 sessions		
66	Should support TLS inspection exemption by site reputation DB, web categories, and/or policy addresses		

67	Should support SSL/TLS Inspection for Invalid, expired or untrusted certificate.		
68	Should support Botnet server IP based blocking with global IP reputation database. It should also support Botnet Domain based blocking to filter known “Fast flux” Botnet Domains		
69	Should support blocking known HTTPS based Botnet/Malware connections using fingerprint-based certificate blacklist.		
70	Enterprise-class URL filtering solution that has multiple categories of URLs and includes Malicious URL blocking, user overrides, local categories & category rating override and search engine keyword logging		
Operational Specifications			
71	All Operational components of the SDWAN solution should be hosted On-premises.		
72	Built-in Application Signatures for popular, standard On-premises applications used in SDWAN routing, should be automatically updated from the Central Management / Orchestrator / Controller to all Hub and Branch CPEs.		
73	The Application & Security signatures should be automatically downloaded by the Central Management / Orchestrator / Controller from the Vendor’s Update server via an Internet Proxy connection.		
74	The solution should also have an option to download these signatures from the Vendor’s site manually and upload it to the Central Management / Orchestrator / Controller		
75	The application & Security signature updates should have a frequency of less than a week.		
76	The Firmware / OS updates for the HUB and branch CPEs should be downloaded by the Central Management / Orchestrator / Controller from the Vendor’s Update server via an Internet Proxy connection. The solution should also have an option to download these Firmware / OS updates from the Vendor’s site manually and upload it to the Central Management / Orchestrator / Controller		
77	The Firmware / OS upgrades should be performed centrally from the Central Management / Orchestrator / Controller onto the CPE devices. There should be two options, On-demand upgrade or Scheduled upgrade.		
78	The Entire solution should support RESTful API based Configuration. Ansible, Terraform and Python should be supported for configuration and analytics.		
79	The Entire solution should support third-party integration like SNMPv2c, SNMPv3 AES-256, Syslog in CEF format, sFlow version 5 and Netflow V9.0.		
80	The following Remote Authentication protocols should be supported for logging in to the CPE device: - LDAP - RADIUS - TACACS+ - Two Factor Authentication		

81	The Solution should identify the different types of devices present on the Field Office network (Eg: Linux, Windows, MAC, network device etc.) with the Inbuilt Device Identification and fingerprinting feature		
82	Should support the following IPv6 features: Management over IPv6, IPv6 routing protocols, IPv6 tunneling, IPv6 based Application Steering (SDWAN), IPv6 Firewall, NAT46, NAT64, IPv6 IPsec VPN and Application Control for IPv6 traffic.		
83	The CPE devices should have a capability to run a CLI script to collect debug information (like top Processes and other info), and then email the results of the script to a specified email address when CPU/Memory usage threshold is exceeded.		
84	Should have a Packet Capture feature in both GUI and CLI with appropriate filter options, to view the packet's header and payload information. The Packet capture output from the GUI can be downloaded as a PCAP, which can be viewed with tools like WireShark		
85	The device should have automatic configuration revision feature (Automatically backing up the configuration on the inbuilt storage) on the device.		
86	The vendor should be able to demonstrate all the features requested in the RFP or partial list of features selected by the Organisation from the RFP in a satisfactory manner in the Organisation's environment. This PoC demonstration would be mandatory as part of the Technical Evaluation of bids.		

Item No. 1 & Item no. 7 of BoQ

5.2.19. SDWAN CONTROLLER/ORCHESTRATOR/MANAGER

(To be configured in Active/Active or Active/Passive mode in DC and DR)

The main objective of the Centralized Management / Orchestrator / Controller solution is to have:

- To centrally manage / orchestrate / control multiple SD-WAN Edge, HUB CPE and Internet security appliances.
- Should have provision for Scalable licenses to accommodate future growth in the number of SD-WAN Edge CPE appliances.
- Shall be provided as Appliance or Virtual Machine (VM) based platform supported by industry standard Hypervisors
- Should be licensed to manage all the quoted Hub and branch CPE devices for all the requested features.
- Should provide complete visibility of SD-WAN real-time SLAs at each Field Office
- To provide Centralized Security-update Distribution and to backup configuration revisions

Specifications for SDWAN Controller/Manager/Orchestrator			
Sl No	Features/Specifications	Complied Yes/No	Remarks
1	The Centralized Management / Orchestrator / Controller platform can be Physical appliance, Virtual Appliance or Software based. In case of a software option, the OS and hardware needs to be bundled along with the solution		

2	Shall have adequate memory, CPU etc. so that the utilization does not normally exceed 60% or impacting performance of the device while running all the functionalities. In case augmentation in any component is required, the same shall be done without any additional cost		
2	Should provision SD-WAN CPE Devices from a single console across the WAN network using templates		
3	Should perform enhanced SD-WAN monitoring for each SD-WAN link member with visibility of link status, application performance, bandwidth utilization. The SLA targets should be included in performance monitoring graphs for each WAN provider.		
4	It should have a Geo Map which shows placement of Hub and Spokes along with the color-coded overlay connectivity between them based on their health check status		
5	Centralized Management / Orchestration / Controller should have the feature of implementing global policies and Global objects, to be distributed among all NGFW feature of SDWAN Edge devices		
6	It should support downloading Essential updates (Application Signature Updates) & Security Updates (Antivirus definition updates, IPS updates, Geo DB Updates, IP Reputation updates and Web Filtering updates) from day 1 and supply them to the SDWAN CPE appliances.		
7	Should leverage automated REST API, scripts, connectors		
8	It also should have automatic configuration revision feature (Automatically backing up the configuration of SDWAN Edge devices, if there is a change)		
9	Should support HTML5 based Web UI and/or CLI		
10	The Web UI should have provision to restrict Admin access from certain IP and not from all IPs.		
11	Real time SDWAN Monitoring Dashboard should retain historical information for 180 Days, shall have traffic forecasting and SLA compliance. The solution shall have capabilities to define, monitor and report SLA of the WAN links. The solution shall support syslog export directly from the SDWAN edge devices		
12	Should be quoted and implemented in Geo-Redundant HA with one unit in DC and other in DR		

Item No. 2 & Item no. 8 of BoQ

5.2.20. SDWAN HEADEND/HUB/GATEWAY DEVICE AT DC AND DR

The main requirement for the SD-WAN Headend/Hub/Gateway device is as follows:

- Positioned at the Data Centre of KSEB
- Terminates multiple MPLS/Internet circuits from different providers.
- Aggregates all SD-WAN Tunnels (Overlays) from various Field Offices – scalable to accommodate a total of 2000 Field Offices in future.
- Should be quoted in High Availability
- High Port density with support of 1 Gig and 10 Gig interfaces.

It should comply with the parameters mentioned below:

Specifications for SDWAN Headend/Hub/Gateway Device			
Sl No	Features/Specifications	Compliance Yes/No	Remarks
Performance & Scalability Specifications			
1	The SD WAN Hub device should have 10 Gbps of encrypted (IPSec) Traffic Throughput right from Day 1. The required throughput requirement must be achieved using single appliance.		
2	Should support termination of overlay tunnels up to 2000 Field Offices from Day one and scalable to 3000 Field Offices		
3	Should have basic Security features like Zone-based firewall, Layer 7 Firewall/Application control and DoS functionality without incurring any hardware upgrade.		
4	DoS Module must be customizable to protect against Denial of Service (DOS) and DDOS attacks. Should have flexibility to configure IPv4 and IPv6 Rate based DOS protection with threshold settings against TCP Syn flood, TCP/UDP/ port scan, ICMP sweep, TCP/UDP/ SCTP/ICMP session flooding. Threshold settings must be customizable for different sources, destinations & services		
Hardware Specifications			
5	Device shall have a minimum of 6x1/10 Gig SFP+ slots with no restriction on which ports can be used for LAN or WAN. Hub devices shall have dedicated 1 X 1G RJ-45 mgmt port. Devices should be fully populated with 10G SFPs		
6	Each device should have dedicated 1 GE RJ45 Port for Management		
7	The device is to be quoted in High Availability with required licenses and identical features on both units		
8	The device should have dual Redundant, Hot-swappable Power supply		

9	The hardware should have secure crypto processor/TPM for securely storing cryptographic keys		
10	Device shall support 16 VRF segments for End to End Segmentation of traffic		
11	The device shall be able to support a min of 10 WAN links as part of SDWAN overlay		
12	Shall support Generic Routing Encapsulation (GRE), IPSec, Ethernet 801.1Q, VLAN, VxLAN		

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5.2.21. MONITORING, DASHBOARD, REPORTING & ANALYTICS SERVICE

The main objective of the Centralized Analytics solution is to have:

- High logs/sec capacity and High storage capacity for log retention for upto 6 months
- Virtual Machine (VM) based platform supporting leading industry standard hypervisors.
- Support parsing of logs from all SDWAN CPE HUB and Edge devices quoted in this RFP
- Automated Correlation capabilities

Specifications for Monitoring, Dashboard, Reporting & Analytics Service			
Sl No	Features/Specifications	Complied Yes/No	Remarks
Performance Specifications			
1	The Analytics appliance should retain all the logs(All the traffic, security and events) for 180 days after which it should upload the logs for long term archival.		
2	It should support concurrent logging from up to 1500 SDWAN CPE devices and Data Centre Internet Security from day one and it must be scalable to 2000 devices.		
3	It should have a mechanism like FTP, SFTP of exporting archived logs for long-time storage		
Hardware Specifications			
4	The Centralized Analytics platform can be Physical appliance, Virtual Appliance or Software based. In case of a software option, the OS and hardware needs to be bundled along.		
5	The device should have dual Redundant, Hot-swappable Power supplies		
Technical Specifications			
6	The Analyzer should provide Powerful Network Security Visibility with customizable interactive Dashboard and summary views		

7	It should have Drill-down capabilities to follow the trail of a user session, trace transactions, and gain new insights		
8	It should provide superior Visualization with graphical bubble charts, and a geographical Threat Map		
9	Should have log search capabilities based on Usernames, IP, service, Applications etc		
10	Should have Automated Correlation Engine to identify suspicious traffic pattern and present a prioritized list of hosts which are compromised		
11	Should have built-in report templates, which are highly customizable		
12	Should have the facility to create custom reports with intuitive chart builder		
13	Run report on-demand or on a schedule with automated email being sent (in HTML and PDF format) to a list of users. PDF based reporting should be generated by the system automatically without any manual intervention, each time the report is generated.		
14	Should have Automated alert notification for issues, problems and attacks		
15	Should leverage automation via REST API, scripts, connectors, and automation stitches to expedite network and security response		
16	Should have automated Storage Quota management based on defined policy.		
17	It should have a NOC / SOC view which provides centralized monitoring and awareness of the link outages, threats, events and network/mail activity, with predefined and customized dashboards.		
18	The solution should support Out-of-the-box playbook templates for enabling SOC analysts to quickly customize the use case, including playbooks for investigation of infections, compromised hosts, critical incidents, data enrichment for viewing Assets and Identity blocking of malware, C&C IPs		
19	The solution must have predefined MITRE ATT&CK dashboard to review security incident and event based on MITRE ATT&CK matrices		
20	The solution must automatically create incidents when an outbreak is detected		
21	It should have the feature to forward logs from itself to a third-party syslog server, a Common Event Format (CEF) server or a SIEM solution.		

22	The Centralized logging and Reporting appliance should be able to parse, correlate logs and generate reports for all the appliance supplied along with this solution like the SDWAN Headend/HUB, SDWAN Edge CPE etc.		
23	The SD-WAN solution should provide Enhanced Analytics of Bandwidth consumption, SLA metrics – jitter, packet loss, and latency, real-time monitoring, filter based on time slot, WAN link SLA reports, per-application session usage, threat information - malware signature, malware domain or URL, infected host, threat level, malware category and indicator of compromise.		
24	- Central management system should support below monitoring capabilities both in real-time and historically. - Top talkers. Identify which applications are using the most bandwidth across the WAN - Bandwidth Utilization. Observe the total amount of bandwidth being utilized for both optimized and unoptimized - Network performance. The measure (in packets per second) the performance being achieved across the WAN for both optimized and non-optimized - Flow count. Track the number of TCP and UDP flows generated across the WAN for both optimized and unoptimized - Latency. Measure average and peak latency in real-time. Drill down into the portions of the WAN with the highest latency - Packet Loss. Measure average and peak packet loss in real-time, in aggregate and on individual WAN connections. Observe the impact of Path Conditioning features - Flow data. Showing real-time user flow information for troubleshooting - Live tunnel view to show how various transports are being using by application policies Central Dashboard - The dashboards mentioned in this RFP should have the capability to drill down to granular level by clicking on the respective elements as follows: Assuming there are 25 devices with link down. The Dashboard should have the capability to drill down at granular level to identify which TSP link went down for which location, at what point of time - The proposed SDWAN dashboard solution should have visibility of all other SDWAN components/elements deployed across all the data center.		

	• The Dashboard should be able to display the current load on headend devices across DC/DR in GUI. • The reporting module of the proposed solution should provide monitoring dashboard to provide information such as • Number of successful/ failed configuration push/ pull to/ from edge devices. • Number of edge devices deployed per OS version group-wise. • All the above options should be available with further drill-down and with information i.e., IP address, location, hostname, etc. • For dashboards/ reporting, the necessary capacity planning like disk IOPS, SSD, RAM, etc. shall be done by the bidder. Any performance enhancement required to achieve the above-mentioned requirements shall be provided by the bidder at no additional cost during the whole contract period. • The dashboard of proposed SDWAN solution should populate details pertaining to authenticated, unauthenticated (rogue device trying to register), offline and online headend and branch-end devices. • The dashboard of proposed SDWAN solution should support a near real-time automated alerting mechanism and alerts can be forwarded to another monitoring tools using SNMP traps, syslog and API etc. • The alerts should be sent to users or admins through email. Branch Devices: • The dashboard of the proposed solution should be capable of doing near real-time monitoring of all the links in GUI with respect to the following (but not limited to) parameters: - o Packet loss - o Jitter - o Link errors - o Bandwidth utilization - o Latency - o Duplex, Speed • The Dashboard of the proposed solution should be capable of displaying data over the customized period pertaining to : • Top 20 users by bandwidth utilization. • Top 20 Applications by bandwidth utilization. • The Proposed SDWAN solution should have monitoring dashboard to provide application-wise and user-wise utilization according to the customizable time period in various graphical formats like Pie chart, bar graph, etc. • The proposed SDWAN solution should provide monitoring dashboard for applied per class of service		
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	bandwidth utilization as per the configured Quality of Service in forward and reverse direction in GUI. Solution should be able to display real-time in per second graphical representation of bandwidth utilization, latency, loss, jitter across all locations		
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5.2.22. WAN AGGREGATION SWITCH AT DC AND DR

WAN Aggregation Switches - 24 x 1Gbps Ports, 4 x 10Gbps uplink Ports, Redundant Power supply, with stackable and SFP+ modules

S.No	Specification	Compliance (Yes/No)
	Architecture	
1	The switch should be Rack Mountable and should have 24 x 10/100/1000 BASE-T ports and 4 x 1/10 Gbps SFP+ ports with modules	
2	Switch must have two field-replaceable and hot- swappable power supply loaded from day one. The switch should have 1x USB-C Console Port, 1x OOBM and 1x USB Type A Host and 8 MB Packet buffer size, Switch must support 32K MAC address	
3	The switch should support front plane stacking on uplink port or Backplane stacking and should have Stacking Performance of minimum 200 Gbps. The switch should support minimum 4 switch in stack. Stacking cable shall be supplied along with the Switch, if required.	
4	The proposed switch should have minimum 64,000 Ipv4 Unicast Routes, Since it's deploy in WAN aggregation it must have capable of Ipv6 Unicast Routes for future requirement. Min 8K Ipv4 & Ipv6 Multicast Routes, Ipv4/Ipv6/MAC ACL Entries (Ingress) 5000/1250/5000 and Ipv4/Ipv6/MAC ACL Entries (Egress) 2000/500/2000	
5	The switch should have 448Gbps of Switching Capacity and 330 Mpps Throughput Capacity	
6	The Switch should support Virtual Router Redundancy Protocol (VRRP) to allow groups of two routers to dynamically create highly available routed environments in IPV4 and IPV6 networks	
7	The Switch should support Uni-directional Link Detection (UDLD) to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops in STP- based networks	
8	The Switch should support IEEE 802.3ad LACP supports up to 100 LAGs, each with up to 8 links per LAG and provide support for static or dynamic groups and a user-selectable hashing algorithm	
9	The Switch should support IEEE 802.1s Multiple Spanning Tree provides high link availability in VLAN environments where multiple spanning trees are required and legacy support for IEEE 802.1d and IEEE 802.1w	
	IPv6 feature	
10	IPv6 host enables switches to be managed in an IPv6 network	
11	Dual stack (IPv4 and IPv6) transitions from IPv4 to IPv6, supporting connectivity for both protocols	
12	MLD snooping forwards IPv6 multicast traffic to the appropriate interface	
13	IPv6 ACL/QoS supports ACL and QoS for IPv6 network traffic	

S.No	Specification	Compliance (Yes/No)
14	IPv6 routing supports Static and OSPFv3 protocols	
15	RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping	
	Management	
16	The Switch should support Built-in programmable and easy to use REST API interface	
17	The Switch should support any 3rd party NMS.	
18	The Switch should support Zero-Touch Provisioning (ZTP) simplifies installation of switching infrastructure using DHCP-based	
19	The Switch should have Scalable ASIC-based wire speed network monitoring and accounting with no impact on network performance.	
20	The Switch should support Industry-standard CLI with a hierarchical structure	
21	The Switch should support Management security restricts access to critical configuration commands, provides multiple privilege levels with password protection, and local and remote syslog capabilities allow logging of all access	
22	The Switch should support SNMP v2c/v3 provides SNMP read and trap support of industry standard Management Information Base (MIB), and private extensions sFlow (RFC 3176)	
23	The Switch should support TFTP and SFTP support offers different mechanisms for configuration updates; and NTP, LLDP	
24	The Switch should support Dual flash images provides independent primary and secondary operating system files for backup while upgrading	
25	The Switch should support Ingress and egress port monitoring enable more efficient network problem solving	
26	The Switch should support IP SLA for Voice monitors quality of voice traffic using the UDP Jitter and UDP Jitter for VoIP tests	
	Multicast	
27	The Switch should support IGMP Snooping, MLD, PIM and PIM SM and DM for both IPv4 and V6	
28	The Switch should support Multicast Service Discovery Protocol (MSDP) to efficiently routes multicast traffic through core networks	
	Layer 2 & 3 Features	
29	The Switch should support VLAN and tagging for IEEE 802.1Q (4094 VLAN IDs), Jumbo packets upto 9198 Bytes	
30	The Switch should support RPVST+, MVRP, BPDU tunnel to transmits STP BPDUs transparently	
31	The Switch should support Port mirroring duplicates port traffic (ingress and egress) to a monitoring port; and support minimum 4 mirroring groups	
32	The Switch should support STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	
33	The Switch should support Border Gateway Protocol (BGP) provides IPv4 and IPv6 routing. Since it's deploying in WAN aggregation we must require the BGP peering between WAN to LAN.	
34	The Switch should support Multi-protocol BGP (MP-BGP) enables sharing of IPv6 routes using BGP and connections to BGP peers using IPv6 and OSPF v2 and v3 (Both) and static routing	
35	The Switch should support Policy-based routing and used as a classifier to select traffic that can be forwarded based on policy set by the network administrator for WAN aggregations	

S.No	Specification	Compliance (Yes/No)
36	The Switch should support Dual IP stack to maintain separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design	
	Security	
37	The Switch should support integrated trusted platform module (TPM) for platform integrity. This ensure the boot process started from a trusted combination of switches.	
38	The Switch should support Access control list (ACL) support for both IPv4 and IPv6 to allow for filtering traffic to prevent unauthorized users from accessing the network.	
39	The Switch should support ACLs filtering based on the IP field, source/ destination IP address/subnet, and source/ destination TCP/UDP port number on a per-VLAN or per-port basis	
40	The Switch should support Remote Authentication Dial-In User Service (RADIUS) and TACACS+	
41	The Switch should support multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards	
42	The Switch should support Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications	
43	The Switch should support DHCP protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks	
44	The Switch should support Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3	
45	The Switch should support Switch CPU protection to provide automatic protection against malicious network traffic trying to shut down the switch	
46	The Switch should support Source-port filtering to allow only specified ports to communicate with each other	
47	The Switch should support Secure Sockets Layer (SSL) to encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch	
48	The Switch should support Management Interface Wizard to help secure management interfaces such as SNMP, telnet/SSH, SSL, Web.	
49	The Switch should support Security banner displays a customized security policy when users log in to the switch	
	Certification	
50	EN 60950-1, EC 60950-1, EN 61000, EN 60825 or equivalent standard Certifications as per Indian Std.	

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5.2.23. SDWAN EDGE/BRANCH/CPE ROUTER

Specifications for Small SD-WAN Edge/Branch/CPE Router			
Sl No	Features/Specifications	Compliance Yes/No	Remarks
Performance Specifications			
1	The device should have 300 Mbps of Traffic Throughput (in each direction) with Encryption and with logging enabled, right from Day 1 and scalable to 500 Mbps by upgrading license. This throughput should be supported for SDWAN to the HUB and with complete security features enabled.		
2	Should support up to 100 overlay tunnels.		
3	Device shall support QoS on physical and sub interface, NAT, DHCP		
4	Device shall support Radius, LDAP and/or TACACS+, SSHv2, SNMPv3 and/or Telemetry, Syslog, NTP		
5	Device shall support deep packet inspection to identify applications and shall able to apply QoS based on application		
6	Device should be rack mountable at field offices		
7	Device shall support ILL, MPLS, Broad band, LTE		
8	Hardware and software both should be from same OEM		
9	Should have all the security features described in Advanced Security Specifications such as Zone-based firewall, Layer 7 Firewall/Application control and SSL/TLS Inspection along with Advanced Security features like IPS, AntiMalware, AntiBotnet and Malicious Web filtering with a license, without incurring any hardware upgrade.		
10	Shall be capable to support following routing protocols, IPv4, IPv6 static routes, Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), Dynamic Host Configuration Protocol (DHCP), (VRRP), RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC) or equivalent, IPsec		
Hardware Specifications			
11	The device should have 5 x 1G RJ45 ports and any port can be configured as WAN or LAN port. There should not be any restriction of running dynamic routing on any of these ports		
12	The hardware should have secure crypto processor/TPM for securely storing cryptographic keys		

Item No. 13 of BoQ

5.2.24. LAYER-2 SWITCH FOR FIELD OFFICES

24 x 1Gbps RJ45 Ports, 4 x 1Gbps SFP ports

S/N	Features/Specifications	Compliance Yes/No	Remarks
	General Requirements		
1	Manageable switch should have minimum 24x 10/100/1000BASE-T Ports and 4x 1G SFP ports		
2	Proposed switch should have a dedicated Serial console port (RJ-45 /USB)		
3	The switch should have 56 Gbps of Switching Capacity and 41 Mpps Throughput Capacity.		
4	Proposed Switch should support minimum 8K MAC address		
5	Proposed switch should support 1000 VLANs		
6	Should support min DRAM-512 MB DDR3		
	Layer 2 Requirements		
7	The Switch should support frame size of up to 9198 bytes		
8	Should support Spanning Tree Protocol MSTP and RTSP, STP and STP Root & BPDU Guard		
9	IEEE 802.1AX / IEEE 802.1AD Link Aggregation		
10	IEEE 802.1q VLAN tagging, IEEE 802.1ab Link Layer Discovery Protocol (LLDP).		
11	should support Unicast/Multicast traffic balance over trunking		
12	Should support IEEE 802.3x Flow Control and Back-pressure, IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3z , 1000Base-SX/LX, IEEE 802.3ab 1000Base-T		
	Authentication Requirements		
13	Should support 802.1x port-based authentication		
14	Should support 802.1x MAC-based authentication, IEEE 802.1x MAC Access Bypass (MAB)		
15	Should support IEEE 802.1x Guest and Fallback VLAN		
16	Switch should support local user database and can integrate with LDAP, RADIUS, TACACS+ servers		
17	The Switch should support integrated trusted platform module (TPM) for platform integrity. This ensure the boot process started from a trusted combination of switches.		
	Management		
19	Should support SSH, HTTPS with IPv4 and IPv6 Management		
20	Switch should support SNMP v2c and v3		
21	Software download/upload: TFTP/SFTP/GUI		
22	Proposed switch should be managed via both, GUI, CLI and manage via any standard NMS		
	Central Management		
23	Should support centralized security management, configuration and reporting through a single console from switch controller or from external NMS		
	Certifications		
25	EN 60950-1/IEC 60950-1, EN 60825 CAN/CSA C22.2 No. 60950, UL 60950-1 or standard Equivalent for the above		

6. QUALIFICATION REQUIREMENTS

This section covers the minimum requirement with respect to experience, capability, and other particulars of the Bidder to be considered eligible for participation in the bid for the proposed work. The Bidder must possess the requisite experience, strength, and capabilities for carrying out the migration of existing MPLS Network to SDWAN as described in the RFP document. The Bids must be complete in all respect and shall cover the entire scope of work as stipulated in the tender document. The invitation to Bid is open to all Bidders who qualify the eligibility criteria given below.

The bid should be submitted by Single Bidder and no consortium allowed.

6.1. PRE - QUALIFICATION CRITERIA FOR BIDDERS

Clause No.	Qualification Criteria	Supporting Documents Required
1	a. Bidder shall be a Company incorporated / registered under the Companies Act 1956/ 2013. b. Bidder must be registered with appropriate authorities for all applicable statutory duties/taxes Companies incorporated / registered in India under relevant legislation and authorized to carry out business in India may also participate	Valid documentary proof of: ▪ Incorporation/registration Certificate along with Memorandum & Articles of Association ▪ Certificate consequent to change of name, if applicable ▪ GST Registration Certificate
2	The bidder should have been in the IT related services for the last 5 years.	
3	The Bidder shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted with any of the Central / State Government agencies.	Declaration in this regard by the authorized signatory of the Bidder
4	Minimum Average Annual turnover of Rs. 8 Crores for any of the three financial years during the last five years ending 31 st March 2024.	Chartered Accountant certificate for annual turnover and net worth supported by copy of audited statement of account (PL account & balance Sheet) duly certified by CA.
5	Bidder shall have positive net worth in each of the last three financial years ending March 31, 2024	
6	The bidder should have experience in successfully completing WAN implementation projects during the last five years in Central/ State Government /PSUs/ Nationalised Banks/ Corporate Organisations as follows: Implementation of SDWAN solution of one project with a minimum of 1000 field/branch offices OR 1) Implementation of MPLS solution of one project with a minimum of 1000 field/branch offices and 2) Implementation of SDWAN Solution of one project with a minimum of 300 field/branch offices.	Proof of Work Order & client certificate for successful completion to be submitted
7	The Bidder/OEM from a Country which shares a land border with India will be eligible only if they are registered with the competent authority as per Govt. of India Order,	Copy of document of registration with DPIIT, Govt. of India.

Clause No.	Qualification Criteria	Supporting Documents Required
	issued by Ministry of Finance vide No.F.No.6/18/2019-PPD dated 23/07/2020	
8	The bidder should submit valid letter from the OEMs in the specified format for all active components and associated software in the BoQ confirming the following: - Authorization for bidder - Confirm that the products quoted are not end of life products within next 5 years - Undertake that the support including spares, patches etc. for the quoted products shall be available for next 7 years	OEM support letter to be submitted in the specified format
9	Bidder should be an ISO 9001: 2015 and ISO 27001:2015 or later certified company.	Copy of certification from authorized certification body
10	The bidder should have 50 technically qualified professionals in its team having a minimum experience of 5 years in the following areas: System Integration, Software defined network, Core network management, Security Management, Implementation of SDWAN solution etc. out of which, - At least two persons shall have professional OEM Certification in SDWAN - At least two persons shall have professional Certification in Networking - At least one person shall have Professional Certification in Information Security (CISSP or CISA)	- Regarding employees having professional certification in SDWAN, Networking and security, signed CVs along with copies of professional certification may be submitted - For the remaining 45 employees, report generated from the HR Management System or Payroll system of the company may be submitted
11	The OEMs of SDWAN Solution quoted by the bidder should have presence in IT industry in the country for the past 10 years.	- Self-declaration by the OEM - Proof for previously supplied orders of the OEM
12	The OEM of SDWAN should have ISO 9001, ISO 14001, ISO 27001 or above certifications.	Copy of valid Certification documents
13	All products offered by the bidder should be available with the concerned OEMs as on date and should be publicly referenceable.	Self-declaration by the OEM
14	OEM should have a minimum annual turnover of Rs. 500 crores during the last three financial years (i.e., 2021-22, 2022-23 & 2023-24).	Certificate from Chartered Accountant should be submitted
15	The OEMs of SDWAN Solution should have local Technical Assistance Centre (TAC) support in India and Should have sales office and Support/Returned Materials Authorization (RMA) depot in Kerala/South India.	Details of Technical Assistance Centre, Sales office and Support/RMA depot
16	The OEM of SDWAN should have supplied and installed at least three SDWAN implementations each with a minimum of 1000 field/branch offices in Govt./PSU/Banks/Corporate Organisations in India. Out	Copy of Work Orders and its satisfactory project completion Certificate

Clause No.	Qualification Criteria	Supporting Documents Required
	of the above three projects, one project shall be working satisfactorily for the past one year.	

Note:

- It shall be noted that merely meeting the minimum requirements does not indicate that the bidders shall be short listed for opening of financial bid. The short listing shall be made considering all the technical parameters.
- The bid documents uploaded shall be properly aligned, signed with page numbers and index relevant portions, in the documents submitted in pursuance of eligibility criterion mentioned above, shall be highlighted.
- Bidders must ensure that all required documents have been uploaded along with the bid to justify eligibility.
- Financial statements audited by a practicing Chartered Accountant shall only be accepted. In addition to the financial statements, Turnover/Networth Certificate duly certified by the practicing Chartered Accountant in the prescribed format (Appendix E & F) to be furnished. Status of registration of the Chartered Accountant will be ensured by verifying with official website of the Institute of Chartered Accountants of India www.icaai.org. Since Unique Documents Identification Number (UDIN) is mandatory for issuing certificate by practicing Chartered Accountants, the UDIN will be clearly specified in the above certificate. The authenticity of the documents will be verified in the website www.udin.icaai.org.
- An undertaking in the prescribed format given in Appendix-E shall be submitted by the bidder along with the bid.
- Stringent action including blacklisting of the firm from participating tenders of KSEBL will be taken against bidder for furnishing forged documents.
- Financial statements of the bidder in the case of Limited Companies will be verified with the published financial statements available in their website.
- Bidder should be an authorized partner/seller of all the proposed solutions/products and should provide Manufacturer Authorization in the template provided in the RFP.
- After preliminary examinations and/or opening of the Technical Bids, eligible bidders are required to conduct a Proof of Concept (PoC) demonstrating the implementation of the SD-WAN solution across 5 selected field offices identified by KSEBL. In the event of the failure of the Proof of Concept and demonstration, the bid submitted by such bidders shall not be considered for further bid evaluation and will be rejected.

7. SERVICE LEVEL AGREEMENT

7.1 PURPOSE OF THIS AGREEMENT

The purpose of this SLA is to clearly define the levels of service to be provided by bidder to Purchaser for the duration of this contract or until this SLA has been amended. The benefits of this SLA are to:

- a) Trigger a process that applies Purchaser and Bidder management attention to some aspect of performance only when that aspect drops below an agreed upon threshold, or target.
- b) Makes explicit the performance related expectations on performance required by the Purchaser
- c) Assist the Purchaser to control levels and performance of services provided by Bidder
- d) This SLA is between Bidder and Purchaser.

7.2 DESCRIPTION OF SERVICES PROVIDED

Bidder shall provide services as defined in Section VI - Scope of Work, in accordance with the definitions and conditions mentioned in the 'Terms and Conditions' of the RFP.

7.3 DURATION OF SLA

This Service level agreement would be valid for entire period of contract.

7.4 SERVICE LEVEL AGREEMENTS & TARGETS

This section is agreed to by Purchaser and Bidder as the key bidder performance indicator for this engagement. The following section reflects the measurements to be used to track and report systems performance on a regular basis. The targets shown in the following tables are for the period of contact or its revision whichever is later.

Table1: Service Level Chart

S/N	Service	Parameter	Service Level	Validation	Penalty
1	Project Management	Submission of Monthly Project Status reports & Conducting Status meetings	100%	- Minutes of Meetings - Approval of Status reports by Engineer-in-Charge	0.001% of total project cost for every default

2	Helpdesk	Resolution of tickets logged as per the Severity definition chart in a month	99%	Reports generated from Ticket logging system	95%-99% calls resolved in specified time: 0.02% penalty on the total contract amount 90%-95% calls resolved in specified time: 0.03% penalty on the total contract amount
3	Install, Moves, Add, Changes (IMAC) Services	Should be part of Monthly project status report	95%	Report	0.001% of total contract amount
4	Asset/ Inventory Management	Provide monthly MIS Asset Inventory	95%	Report	0.001% of total project cost
		Conduct Annual Physical Asset verification	100%	Approval of Physical Asset Verification report	0.001% of total project cost
5	Supplier Management Services	Evaluation of Supplier Performance on quarterly basis	100%	Approval of Supplier Performance evaluation report	0.001% of total contract amount
		Tracking of Supplier SLA & tickets logged with suppliers	95%	Status of tickets logged with Suppliers	0.001% of total contract amount
6	Security, Antispam, Antimalware Management	Rollout of latest definition file on all devices in the SDWAN on being made available on OEM's website (after carrying out required testing)	98%	Reports generated from Dashboard/Monitoring tool	0.01% of total contract amount
7	Network Monitoring & Management	Resolution of tickets logged related to Networks	99%	Reports generated from Ticket logging system	Covered under 2

		Availability of SDWAN backend infrastructure with Hub and Orchestrator at Data Centre/DR Centre - Minimum of 99.9% up time measured on a monthly basis	99.9%	Report	0.1% of total contract amount for less than 99.9% 0.2% of total contract amount for less than 99.8.0% 0.3% of total contract amount for less than 99.5%
		Regional Offices, Circles, Divisions and Sections - Network Availability Minimum of 99% uptime measured on a monthly basis	99%	Report	0.001% of total contract amount for less than 99% 0.002% of total contract amount for less than 98% 0.003% of total contract amount for less than 95%
8	SDWAN Administration / Management	Rollout of updates and patches (OS, infra, security, device level) on Headend, Orchestrator, Edge etc. after patch being approved on test environment	99.9%	Patch update report	0.01% of total contract amount for less than 99.9% 0.02% of total contract amount for less than 98% 0.03% of total contract amount for less than 95%
9	Management of Monitoring, Dashboard, Reporting and Analytics Services	Weekly MIS of SDWAN backend infrastructure components health checkup (CPU, disk space, Memory, I/O utilization etc.)	100%	Reports generated from Dashboard and monitoring services	0.001% of total contract amount for every default
10	Incident management & Ticketing Management	Resolution of ticket logged in Incident Management tool	99%	Reports generated from Ticket logging system	0.003% of total contract amount for less than 99%

11	Problem Management	Supplier shall analyze all the incidents and provide a root cause report every month if there are more than 10 incidents of the same type. Supplier shall take the needed corrective action to prevent further issues due to the same cause.	100% timely submission covering all incidents logged in that month	Root cause report Incident report stating problems faced by the users Document detailing corrective action	0.003% penalty on total contract amount, if the Supplier does not submit problem report for that month. 0.003% penalty on total contract amount, if the Supplier does not perform the corrective action for more than One calendar month.
12	LAN Management-field offices	LAN Availability at field offices - measured on monthly basis	98%	Reports generated from Ticket logging system	0.001% of total contract amount for less than 98%

Note:

1. The bidder is liable to provide post implementation support (during Warranty/Extended Warranty period) services as mentioned in the detailed descriptions in the Scope of Work in accordance with the concerned SLA Clauses listed above.
2. In case of Breach of SLA Clauses, penalty will be deducted from the Performance Bank Guarantee submitted by the bidder.
3. The total deduction of penalty per month shall not exceed 0.2% of the total contract amount
4. The Agreement Authority shall have the right to make suitable amendments in the above SLA conditions based on the requirements from time to time, on mutually agreed terms and conditions

Uptime Calculation for the month:

$$\{[(\text{Actual Uptime} + \text{Scheduled Downtime}) / \text{Total No. of Hours in a Month}] \times 100\}$$

"Actual Uptime" means, of the Total Hours, the aggregate number of hours in any month during which each equipment, is actually available for use.

"Scheduled Downtime" means the aggregate number of hours in any month during which each equipment, is down during total Hours, due to preventive maintenance, scheduled maintenance, infrastructure problems or any other situation which is not attributable to Supplier's (or Service provider's) failure to exercise due care in performing Supplier's responsibilities.

The Purchaser would provide a maximum of 04 hours of planned downtime for the preventive maintenance (as part of scheduled downtime) per month per equipment/service, if required.

The downtime for scheduled maintenance (patch application, upgrades – OS, Database, etc.) would need to be mutually agreed between Utility and the Bidder. To reduce this time, various maintenance activities can be clubbed together with proper planning.

"Total Hours" means the total hours over the measurement period i.e. one month (24 * number of days in the month).

Downtime Calculation:

The recording of downtime shall commence at the time of registering the call with Supplier or Service Provider for any downtime situation for the equipment.

Downtime shall end when the problem is rectified, and the application/ service is available to the user.

Down time will not be considered for following:

- 1) Pre-scheduled preventive maintenance and health checks (Scheduled Downtime).
- 2) Failover time (30 minutes) in case of cluster environment. Beyond which the service would not be available and appropriate penalty shall be imposed on the Supplier.
- 3) Bug in any application which causes the non-availability of the service.

If the utility elects to continue the operation of the machine / equipment, when a part of the machine is giving problem and leading to downtime, the commencement of downtime shall be deferred until the utility releases the machine / equipment to the Bidder for remedial action.

FMS DURATIONS/ SERVICE LEVELS/ CRITICALITY

Typical Facility Management Services Availability & duration of their requirements are tabulated below for reference.

SERVICE AVAILABILITY & CRITICALITY CHART

SERVICE	DURATION	CRITICALITY
SERVICE DESK	24 HOURS	URGENT – 12X7 REST - HIGH
ASSET MANAGEMENT SERVICES	8X6	MEDIUM
VENDOR MANAGEMENT SERVICES	8X6	MEDIUM
SDWAN ADMINISTRATION	24X7	CRITICAL
ANTIMALWARE & SECURITY ADMINISTRATION	12x7	URGENT
NETWORK MANAGEMENT - WAN	24X7	CRITICAL
NETWORK MANAGEMENT -LAN	12X7	URGENT

Table 2: Severity Definition Chart

S/N	Support Category	Criteria	Resolution	Maximum Response Time
1	Critical	The system is unable to be used for normal business activities. There is certainty of financial loss to PURCHASER.	90 Minutes	15 Minutes
2	Urgent	There is a problem with part of the system, which impacts on Purchaser's decision making. No viable workaround is available. There is a likelihood of financial loss.	4 Hours	1 Hour
3	High	The efficiency of users is being impacted, but has a viable workaround.	6 hours	2 Hours
4	Medium	A low impact problem that affects the efficiency of users but has a simple workaround.	12 Hours	8 Hours
5	Low	A fault, which has no particular impact on processing of normal business activities.	One Week	8 Hours

7.5 BREACH OF SLA

In case the Supplier does not meet the service levels mentioned in document, for three (3) continuous time-periods as specified in the relevant clause, the Purchaser will treat it as a case of breach of Service Level Agreement. The following steps will be taken in such a case:-

- 1) Purchaser issues a show cause notice to the Supplier.
- 2) Supplier should reply to the notice within three working days.
- 3) If the Purchaser authorities are not satisfied with the reply, the Purchaser will initiate termination process as per the 'Terms & Conditions' of the RFP.

7.6 EXCLUSIONS

The Supplier will be exempted from any delays or slippages on SLA parameters arising out of following reasons:-

- 1 Delay in execution due to delay (in approval, review etc) from Purchaser's side. Any such delays will be notified in written to the IT Team.
- 2 The network links will be provided by a third party and the Supplier will monitor and report any problems on behalf of third party. If Supplier notifies and Purchaser approves that the delay or fault was due to the third party link services then such loss will not be considered for tracking Supplier's SLA parameters (Also reduced from total service time).

7.7 MONITORING AND AUDITING

IT Team of Purchaser will review the performance of Supplier against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the Supplier as soon as possible. Purchaser reserves the right to appoint a third-party auditor to validate the SLA.

7.8 REPORTING PROCEDURE

The Supplier's representative will prepare and distribute SLA performance reports in an agreed upon format by the 10th working day of subsequent month of the reporting period. The reports will include "actual versus target" SLA performance, a variance analysis and discussion of appropriate issues or significant events. Performance reports will be distributed to the Purchaser's IT Team.

7.9 ISSUE MANAGEMENT PROCEDURE

7.9.1. General

This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached between Purchaser and Supplier. It is expected that this pre-defined process will only be used on an exception basis if issues are not resolved at lower management levels.

7.9.2. ISSUE MANAGEMENT PROCESS

- Either Purchaser or Supplier may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.
- Purchaser and the Supplier's representative will determine which committee or executive level should logically be involved in resolution.
- A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.

- Management of Purchaser and Supplier will develop a temporary, if needed, and the permanent solution for the problem at hand. The Supplier will then communicate the resolution to all interested parties.
- In the event of a significant business issue is still unresolved, the dispute will be resolved as specified in Section.4 “Terms and Conditions” , Clause 4.22 – Governing Law and Dispute Resolution

7.10 SLA CHANGE CONTROL

7.10.1. General

It is acknowledged that this SLA may change as Purchaser’s business needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

- A process for negotiating changes to the SLA.
- An issue management process for documenting and resolving particularly difficult issues.
- Purchaser and Supplier management escalation process to be used in the event that an issue is not being resolved in a timely manner.

Any changes to the levels of service provided during the term of this agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this document and consequently the contract.

Changes/modification in the application, which require development efforts less than one month shall be considered as included in the scope. Any changes/modifications with require development effort more than one month will be considered for the payment based on mutually agreed terms and conditions.

7.10.2. SLA CHANGE PROCESS

Both the parties may amend this SLA by mutual agreement in accordance. Changes can be proposed by either party. Normally the forum for negotiating SLA changes will be Purchaser’s monthly review meetings.

7.10.3. VERSION CONTROL

All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

7.11 MANAGEMENT ESCALATION PROCEDURES

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that purchaser and Supplier management are communicating at the appropriate levels. Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

- a. All issues would be raised to the project management team, which is completely responsible for the day to day aspects of the provided services. The project management team shall classify the issues based on their severity level and resolve them within appropriate timelines.
- b. If project management team is unable to resolve an issue, the issue would be escalated to the top management with options/ risks detailed for decision. Top management will make decisions based on the options/ risks presented by the IT team.

8. PROPOSAL SUBMISSION FORMS

Note:

Technical proposal to be furnished by the bidder on its letter head and each page should signed by the authorized signatory.

An affidavit indicating that all the information, affirmation made in this proposal shall be complied with shall be provided.

The Technical Proposal shall be given strictly in same sequence of order as given in this document.

8.1. BID FORM

(To be submitted along with price Bid)
(To be executed on Rs.200/- non-judicial Kerala Stamp Paper)

RFP No. CE(IT,CR&CAPs)/10/2024-2025 dated 29.09.2024

To

The Chief Engineer (IT, CR & CAPs)
8th Floor, Vidyuthi Bhavanam,
Pattom, Thiruvananthapuram

Sir,

Having examined the conditions of contract and specification I/we, the undersigned offer to appointment of IT Implementation Agency (ITIA) for 'Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme' in conformity with the said conditions of Contract and specification for the sum of or such other sums as may be ascertained in accordance with the schedule of prices attached herewith and made part of this tender.

We undertake, if our tender is accepted, to commence delivery withindays and to complete delivery of all the items specified in the contract withindays, calculated from the date of your Purchase order.

If our tender is accepted we will deposit the amount specified in RFP for the due performance of the contract. We agree to abide by this bid for a period specified and it shall remain binding upon us for acceptance by the K.S.E. Board, at any time before the stipulated expiry.

Until a formal contract is prepared and executed, our offer as per the price bid shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any other tender you may receive.

Dated thisday of20.....

Signature
(In the capacity of)

Duly authorized to sign bid for and on behalf of:

Witness:

Address:

Signature:

Note: Scanned copy of Bid agreement in Rs 200/- stamp paper to be submitted online.

8.2. TECHNICAL PROPOSAL SUBMISSION SHEET

To,

Chief Engineer (IT, CR & CAPs)
8th floor, Vidyuthi Bhavanam,
Pattom, Thiruvananthapuram – 695 004

SUBJECT: Submission of Bid for “ ”.

Dear Sir,

We hereby submit our bid for RFP for “ ” RFP No. Dated

We, the undersigned, declare that:

A. Declaration

1. We have examined and have no reservations to the Bidding Document, including Addenda No. (if Any);
2. We offer to supply in conformity with the Bidding Document and in accordance with the delivery schedule, the following Goods and Related Services:
3. Our Bid shall be valid for a minimum period of 90 days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
4. If our Bid is accepted, we commit to obtain a Performance Security in the amount of 10 % of the Contract Price for the due performance of the Contract;
5. We are not participating, as Bidders, in more than one Bid in this bidding process in accordance with the Bidding Document;
6. Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the KSEBL;
7. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed.
8. We understand that you are not bound to accept the best evaluated bid or any other bid that you may receive.
9. We hereby confirm that the bid comply all requirements set out in the bidding document and NO TECHNICAL and COMMERCIAL Deviation are contained in the Bid.

Name:

In the capacity of:

Signed:

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

Date& Seal:

8.3. INFORMATION ABOUT THE BIDDER

Details	Supplier Response
Legal Name of the Bidder	
Date of Incorporation and Number	
Registered Office Address	
Authorized person(s) to be contacted Name (s) Title (s) Telephone (s) E-mail id (s)	
Name of the Chairman/ MD/ CEO/ Partners	
Nature of Ownership	
GST Registration Number	
Other Office Locations, Functions and Personnel Strength	
Number of Employees by Function • Implementation • Sales • Support • Quality Assurance • Administrative • Management	
Other Businesses, if any.	

Note:

1. Please enclose the ownership structure of the company, Incorporation Certificate, MOA, AOA duly attested by Company Secretary/ Director of the Company.
2. The above table should be furnished for all the members of the bid mentioned section 8.2 Bid Structure.

We hereby certify that the above information is correct.

Name:

In the capacity of:

Signed:

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

Date & Seal:

8.5. BIDDER EXPERIENCE

Sl. No	Name of project	Brief Scope Necessarily including role played by Bidder, modules implemented, Sector classification	Client Name and Contact details	Currency of payment (in INR or USD)	Cost of assignment	Date of Awarded commencement	Date of completion	Was assignment Satisfactorily completed	Was it a Power Sector Project? (Y/N) Provide Detail	Node base (wherever applicable)
1										
2										
3										
..										

Please provide separate client details for bidder & each consortium member

Note:

1. Bidder has to provide all relevant details of all quoted the experiences for Qualification Requirements in the above format.
2. Relevant supporting documents as per Section 6. Qualification Requirements has to be submitted against each projects.

We hereby certify that the above information is correct.

Name:

In the capacity of:

Signed:

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

Date& Seal:

8.6. TECHNICAL SPECIFICATIONS

Refer to Section 2: Technical Specifications, for details. Please respond to each specification in following format.

Technical Specification for Equipment offered

Name of Item:

Make & Model:

Sr. No	Specifications	Compliance. Yes/No	Remarks
1			
2			
..			

Please note bidder has to provide above compliance sheet for all the products/equipment offered.

We hereby certify that the above information is correct.

Name:

In the capacity of:

Signed:

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

Date& Seal:

8.7. APPROACH AND METHODOLOGY

The following points elaborate various requirements within Approach and Methodology.

- 1) Understanding of Purchaser and its requirement with clear mention of the deliverables
- 2) Details of proposed methodology
- 3) Project Team Structure
- 4) Resource planning and estimation
- 5) Risk planning
- 6) Detailed work plan with timelines

Understanding of Utility and its requirement

Bidder should depict complete understanding of the as-is system of the Utility based on the information provided in the Bid Document. It should also require to list down all the deliverables that has been planned as a part of the overall project with timelines. Also provide details of prior interaction with Utility, if any.

Details of proposed methodology

Please provide details of methodology followed by your organization in successfully implementing similar projects. Also highlight the special steps that your organization/ consortium intends to take in order to ensure that the change from current system to proposed one will be smooth and effective.

Project Team Structure

In this section please provide detail of the team that would be deployed by your organization to execute the project. Please provide details of the team structure in the following format:

Table: Proposed Project Team Structure

Name of Staff	Position Assigned	International or Domestic	Firm	Employment status with the firm (Full time/ Associate)	Education (Degree, Year, Institution)	Area of Expertise and number of years of relevant experience	Task Assigned
A. Professional Staff							
B. Support Staff							

Resource planning and estimation

Bidder shall provide detailed staffing schedule of the professional and support staff in the following format:

- For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: IT administrator, field survey staff etc.).
- Months are counted from the start of the assignment. For each staff indicate separately staff input for off-site and on-site work.

Table: Proposed Resource Planning and Estimation

No.	Name of Staff	Position	Staff Input							Total
			In Weeks	W1	W2	W3	W4	W5		
	A. Professional Staff									
	B. Support Staff									

Risk planning

Bidder shall assess underlying risks in implementation of the Project and detail out the methodology to mitigate them. It may include development of a risk assessment matrix indicating severity of the risk, chance of its occurrence and its mitigation approach.

Project Experience

Bidder shall provide details of projects with application modules and other requirements (as mentioned in Eligibility Criteria). Please do not supply the names of clients who are no longer using your product/system. Bidders need to submit the details as per the format in the table provided and necessary supporting documents should be attached.

12.4.11 Team details (CVs)

Use the following format for key personnel who would be involved in the project. Please include details of team members proposed to provide field support etc., please ensure that the CV has a maximum length of 3 pages. In case of replacement of personal from the project team, Supplier is required to submit the CV of the new person with equivalent or better education qualification and relevant professional experience who will be joining the team and get in duly approved. The new person can start working in the project only after his/her CV has been approved by the KSEB.

Table: Format of Curriculum Vitae

- Proposed Position:
- Name of Firm:

3. Name of Staff:
4. Date of Birth:
5. Nationality:
6. Education:

Year	Degree/Examination	Institute/Board

7. Membership of Professional Associations:
8. Other Training:
9. Countries of Work Experience:
10. Languages:

Language	Speaking	Reading	Writing

11. Employment Record:

From	To	Employer	Positions Held

12. Detailed Tasks Assigned:
13. Work Undertaken that best illustrates capability to handle the tasks assigned:
14. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature of authorized
Representative of the staff

Date:

Full name of authorized representative:

Quality Certifications

ISO 9001	(Yes/No)	
ISO 14001	(Yes/No)	
ISO 27001	(Yes/No)	

Certificate copies need to be attached.

Project Management Practices

Please provide high-level details of the project management practices that will be followed to manage the project.

The project management practices would include (but not be limited to) details of:-

- Bidder must provide details of how they envisage the contract being managed including principles such as (but not limited to) joint planning and control mechanisms; regular and active review meetings; Project management of individual work streams and overall program management of the entire service; Performance reporting
- Bidder should outline their proposed governance structure and designate a Service Manager to co-ordinate their activities and provide a focal point of contact to whom Utility can refer on any matter concerning the service.
- Reporting lines and decision-making powers within the bidder's organization must be explained
- Reporting formats and templates that would be followed by the bidders
- Outline the proposed escalation procedures in the event that issues arise.

Quality Assurance

- Quality of service - Suppliers must provide details of their proposed approach to quality assurance to ensure the quality of services. This should include:
 - Responsibility of quality of service;
 - How the supplier will ensure quality service is provided;
 - How quality will be measured
- Does your company (and consortium partner) have any quality certification / Assessment? If so, please provide your responses for the following:

Table: Details of Certification

Description	Bidder's Response
Certification / Assessment Name	
Who issued the certification/assessment?	
When was the certification/assessment obtained?	

Does this certification/assessment process involve periodic reviews and observations/ remarks after such review? If so, please provide details and specify when your company is due for its next quality review?	
--	--

- Please specify your company's process for product development and enhancements

Documentation

Please provide a list of all user documents that will be provided along with the software package. This must include the following minimum documents:

- System and administration manuals
- Technical support handbook
- User Manuals;
- Error Messages and their Meanings;
- Training Manuals;
- Analysis & Design Manuals with the relevant data flow diagrams, entity relationship diagrams, schemas etc.;
- Additions/ changes to the documents after upgrades; and
- Operations Manuals.

Note: All the provided documents should be in English/Malayalam

Deviations Sheet

Only "non-material deviations" (which means only those deviations that do not qualify as material deviations of bid document) will be considered by the purchaser. Please describe all the non-material deviations w.r.t Terms & Conditions described in the General Conditions of Contract, and Special Conditions of Contract.

If bidder desires to take any non-material deviation from the terms & conditions of the tender, it should be mentioned specifically in this deviation sheet. Unless such deviations are mentioned in this deviation sheet, the same will not be taken into consideration.

Table: Format for Deviations

Tender Clarifications – Terms and Conditions			
Sl. No.	Tender Reference (Section /Clause number)	Details of Clauses / Section needing deviation	Deviation proposed

Except aforesaid deviations, the entire order, if placed, shall be executed in accordance with specifications and any other conditions, variations/deviations etc. if found, elsewhere in this proposal should not be given any consideration while finalizing the tender.

It is not mandatory to consider and accept the deviation mentioned on deviation sheet proposed by the bidder.

Note: - Continuation sheet of like size & format may be used as per bidder's requirement wherever necessary.

8.8. PERFORMA FOR NO DEVIATION DECLARATION

(To be furnished on Bidder's Letterhead)

To:

Chief Engineer (IT, CR & CAPs)
8th floor, Vydyuthi Bhavanam,
Pattom, Thiruvananthapuram – 695 004

Reference: RFN No.dated

Sir,

There are no deviations (null deviations) from the terms and conditions of the tender. All the terms and conditions of the tender are acceptable to us.

Yours faithfully

Name:

In the capacity of:

Signed:

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

Date& Seal:

8.9. BIDDER'S AUTHORISATION CERTIFICATE

(To be furnished on Bidder's Letterhead.)

Please attach the board resolution / valid power of attorney in favour of person signing this authorizing letter.

8.10. MANUFACTURER'S AUTHORIZATION

(To be obtained from all OEMs)

To:

Chief Engineer (IT, CR & CAPs)
8th floor, Vidyuthi Bhavanam,
Pattom, Thiruvananthapuram – 695 004

Reference: RFP No.dated

We....., who are established and reputable manufacturers of having facilities in India, do hereby authorizeto submit a bid, and subsequently negotiate and sign the Contract with you against RFP for Replacement of Network equipment in various offices of KSEBL – Migration of existing MPLS Network to SDWAN under RDSS Scheme of GoI against RFP Noincluding the equipment or goods produced by us.

We hereby extend our full guarantee and warranty for the above specified equipment or goods offered supporting the supply, installation and achieving of Operational Acceptance by the Bidder against these Bidding Documents, and duly authorize said Bidder to act on our behalf in fulfilling these guarantee and warranty obligations. We also hereby declare that we and, have entered into a formal relationship in which, during the duration of the Contract (including warranty / defects liability) we, the Manufacturer or Producer, will make our technical and engineering staff fully available to the technical and engineering staff of the successful Bidder to assist that Bidder, on a reasonable and best effort basis, in the performance of all its obligations to the Purchaser under the Contract.

For and on behalf of the Manufacturer

Signed:

Date:

Place:

8.11. SELF DECLARATION OF NO BLACKLISTING

To:

Chief Engineer (IT, CR & CAPs)
8th floor, Vidyuthi Bhavanam,
Pattom, Thiruvananthapuram – 695 004

Reference: RFP No.dated

Sir,

I have carefully gone through the Terms & Conditions contained in the RFP Document

[No.] regardingfor the period of the project. I hereby declare that my company has not been debarred/black listed by any Government / Semi-Government organizations in India. I further certify that I am competent officer in my company to make this declaration.

Yours faithfully,

Name:

In the capacity of:

Signed:

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

Date& Seal:

9. APPENDIX A - CONTRACT AGREEMENT FORM

Kerala Stamp Paper
(value of Stamp paper is
Rs 1/- for every 1000/- rupees or part thereof on
the amount agreed in the Contract subject to a
maximum of Rs 1,00,000/-)

Agreement

THIS AGREEMENT is made on this day of, Year 20.... , between Shri.....Chief Engineer (IT, CR& CAPs) of Kerala State Electricity Board Ltd, VydyuthiBhavanam, Thiruvananthapuram – 695004, Kerala, India (hereinafter called “the Purchaser”) which expression shall unless repugnant to the context thereof include his successors, heirs, assigns, of the one part, and ----- (hereinafter called “the Supplier”) which expression shall unless repugnant to the context thereof include his successors, heirs, assigns, of the other part.

WHEREAS the Purchaser had invited RFP for..... vide E-Tender No.dated.....2020.

AND WHEREAS various bids were received pursuant to the said bid

AND WHEREAS the Purchaser has accepted a Bid by the Supplier for the above said work in the sum of INR (Indian Rupees); inclusive of all Taxes & Duties (hereinafter “the Contract Price”).

And in pursuance of having accepted the said bid the parties have agreed to enter into this agreement.
NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract referred to.

2. The following documents (collectively referred to as “Contract Documents”) shall be deemed to form and be read and construed as part of this Agreement, viz.:

- i. the detailed award of contract;
- ii. the Service level agreement and Contract Agreement;
- iii. Terms & Conditions of Contract;
- iv. the Scope of Work;
- v. Technical Specifications
- vi. the Instructions to bidders;
- vii. the Purchaser’s Notification to the Supplier for Award of Contract;
- viii. Supplier’s response (proposal) to the RFP, including the Bid Submission Sheet and the Price Proposal submitted by the Supplier;
- ix. Acceptance of purchaser’s notification
- x. RFP document (.....) along with all corrigendum, clarifications and related documents issued by the Purchaser.

In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

3. In consideration of the payments to be made by the Purchaser to the Supplier as indicated in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Related Services and to remedy the defects therein and bring them in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Related Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of the India on the day, month and year indicated above.

Signed by Chief Engineer (IT, CR& CAPs)/ Kerala State Electricity Board Ltd (Authorized Utility official)

Witness-1 - Name & Designation of the Witness to be decided by KSEBL

Witness-2 - Name & Designation of the Witness to be decided by KSEBL

Signed by
(for the Supplier)

Witness-1 – Name & Designation of the Witness of the Supplier

Witness-2 - Name & Designation of the Witness of the Supplier

10. APPENDIX B - PROFOMA FOR PERFORMANCE BANK GUARANTEE

ON STAMP PAPER OF RS.200/-

PERFORMANCE BANK GUARANTEE

BG No. _____

Date: _____

This guarantee is made on this day of 20.... by (complete postal address of the bank) hereinafter called 'the **Bank**', which expression shall unless repugnant to the context or meaning thereof shall include its successors and assigns.

WHEREAS the Kerala State Electricity Board Limited, a Company incorporated by the Government of Kerala under the Companies Act, 1956 having its registered office at Vidyuthi Bhavanam, Pattom, Thiruvananthapuram, Kerala, PIN – 695 004, represented by [name of the agreement authority hereinafter called as 'the **Purchaser**', which expression shall unless repugnant to the context or meaning thereof shall include its successors and assigns] if having agreed to exempt (hereinafter called **contractor(s)**) which expression unless repugnant to the context and meaning thereof shall include its successors and assigns) from depositing with the **Purchaser** a sum of Rs. towards Performance Security Deposit in lieu of the said **contractor(s)** having agreed to furnish a bank guarantee for the said sum of Rs. as required under the terms and conditions of Purchase Order No. dated (hereinafter referred as the 'order') placed by the **Purchaser** on the said **contractor(s)** and on specific request on the part of the said **contractor(s)**, we the **Bank** hereby unconditionally and irrevocably affirm and undertake-

- (a) At the request of the **contractor(s)**, we 'the **Bank**', do hereby unconditionally and irrevocably affirm and undertake that we are the Guarantor and are responsible to the **Purchaser** up to a total sum of [Rupees only] such sum being payable by us to the **Purchaser** immediately upon receipt of first written demand from the said **Purchaser**.
- (b) We unconditionally and irrevocably undertake to pay to the **Purchaser** on an immediate basis, upon receipt of first written demand from the said **Purchaser** and without any cavil or argument or delaying tactics or reference by us to the **contractor(s)** and without any need for the **Purchaser** to convey to us any

reasons for invocation of the guarantee or to prove the failure to perform on the part of the **contractor(s)** or to show grounds or reasons for the demand or the sum specified therein, the entire sum or sums within the limits of
[Rupees only].

- (c) We hereby waive the necessity of the **Purchaser** demanding the said amount from the **contractor(s)** prior to serving the demand notice upon us.
- (d) We further agree and affirm that no change or addition to or other modification to the terms of the agreement, shall in any way release us from any liability under this unconditional and irrevocable guarantee and we hereby waive notice of any such change, addition or modification. We further agree with the **Purchaser** that the **Purchaser** shall be the sole and exclusive judge to determine that whether or not any sum or sums are due and payable to him by the **contractor(s)**, which are recoverable by the **Purchaser** by invocation of this guarantee.
- (e) This guarantee will not be discharged due to the change in constitution of the **Bank** or the **Purchaser**. We undertake not to withdraw or revoke this guarantee during its currency/validity period, except with the previous written consent of the **Purchaser**.
- (f) We unconditionally and irrevocably undertake to pay to the **Purchaser**, any amount so demanded not exceeding [Rupees only] notwithstanding any dispute or disputes raised by the Employer or anyone else in any suit or proceedings before any dispute review expert, arbitrator, court, tribunal or other authority, our liability under this guarantee being absolute, unconditional and unequivocal. The payment so made by us under this guarantee to the **Purchaser**, shall be a valid discharge of our liability for payment under this guarantee and the **contractor(s)** shall have no claim against us for making such payment.
- (g) This unconditional and irrevocable guarantee shall remain in full force and effect and shall remain valid until and shall be extended from time to time for such period as may be desired by the **contractor(s)** on whose behalf it is

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed (value in figures) [value in words].

2. This unconditional and irrevocable Bank Guarantee shall be valid with effect from..... to

3. We are liable to pay the guaranteed amount or any part thereof under this unconditional and irrevocable Bank Guarantee only and only if the **Purchaser** serves upon us a written claim or demand on or before [validity date].

For and on behalf of the Bank

[Signature of authorized signatory(ies)]

Signature:

Name :

Designation:

POA Number:

Contact Nos. : Tel..... Mobile.....

Fax No.

Email

Common seal of the Bank:

Witness: .

1.

2.

Signature:

Name:

Address:

Contact No. Tel.

Mobile

email:

11. APPENDIX C- SERVICE LEVEL AGREEMENT

1. Purpose of this Agreement

The purpose of this SLA is to clearly define the levels of service to be provided by Supplier to Purchaser for the duration of this contract or until this SLA has been amended. The benefits of this SLA are to:

1. Trigger a process that applies Purchaser and Supplier management attention to some aspect of performance only when that aspect drops below an agreed upon threshold, or target.
2. Makes explicit the performance related expectations on performance required by the Purchaser
3. Assist the Purchaser to control levels and performance of services provided by Supplier
4. This SLA is between Supplier and Purchaser.

2. Description of Services Provided

Supplier shall provide service as defined in Scope of Work, in accordance to the definitions and conditions as defined in the Terms and Conditions.

3. Duration of SLA

This Service level agreement would be valid for entire period of contract. This SLA may be reviewed and revised according to the procedures detailed in SLA Change Control.

4. Service Level Agreements & Targets

This section is agreed to by Purchaser and Supplier as the key supplier performance indicator for this engagement. The following section reflects the measurements to be used to track and report systems performance on a regular basis. The targets shown in the following tables are for the period of contact or its revision whichever is later.

4.1 Service Level Chart

(Add the Service Level Chart Table-1 given in Section.7 'Service Level Agreement')

a. Severity Definition Chart

Table-2: Severity Definition Chart

6	Support Category	Criteria	Resolution	Maximum Response Time
6.1	Critical	The system is unable to be used for normal business activities. There is certainty of financial loss to PURCHASER.	90 Minutes	15 Minutes
6.2	Urgent	There is a problem with part of the system, which impacts on Purchaser's decision making. No viable workaround is available. There is a likelihood of financial loss.	4 Hours	1 Hour

6	Support Category	Criteria	Resolution	Maximum Response Time
6.3	High	The efficiency of users is being impacted, but has a viable workaround.	6 hours	2 Hours
6.4	Medium	A low impact problem that affects the efficiency of users but has a simple workaround.	12 Hours	8 Hours
6.5	Low	A fault, which has no particular impact on processing of normal business activities.	One Week	8 Hours

5. Breach of SLA

In case the Supplier does not meet the service levels mentioned in the Service Level Chart, for three (3) continuous time periods as specified in the relevant clause, the Purchaser will treat it as a case of breach of Service Level Agreement. The following steps will be taken in such a case:-

1. Purchaser issues a show cause notice to the Supplier.
2. Supplier should reply to the notice within three working days.
3. If the Purchaser authorities are not satisfied with the reply, the Purchaser will initiate termination process of contract with prior notice.

6. Exclusions

The Supplier will be exempted from any delays or slippages on SLA parameters arising out of following reasons:-

1. Delay in execution due to delay (in approval, review etc.) from Purchaser's side. Any such delays will be notified in written to the IT Team.
2. The network links will be provided by a third party and the Supplier will monitor and report any problems on behalf of third party. If Supplier notifies and Purchaser approves that the delay or fault was due to the third party link services then such loss will not be considered for tracking Supplier's SLA parameters (Also reduced from total service time).

7. Monitoring and Auditing

IT Team of Purchaser will review the performance of Supplier against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the Supplier as soon as possible. Purchaser reserves the right to appoint a third-party auditor to validate the SLA.

8. Reporting Procedures

The Supplier's representative will prepare and distribute SLA performance reports in an agreed upon format by the 10th working day of subsequent month of the reporting period. The reports will include "actual versus target" SLA performance, a variance analysis and discussion of appropriate issues or significant events. Performance reports will be distributed to the Purchaser's IT Team.

9. Issue Management Procedures

9.1 General

This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached between Purchaser and Supplier. It is expected that this pre-defined process will only be used on an exception basis if issues are not resolved at lower management levels.

9.2 Issue Management Process

- Either Purchaser or Supplier may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.
- Purchaser and the Supplier's representative will determine which committee or executive level should logically be involved in resolution.
- A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least
- 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.
- Management of Purchaser and Supplier will develop a temporary, if needed, and the permanent solution for the problem at hand. The Supplier will then communicate the resolution to all interested parties.
- In the event of a significant business issue is still unresolved, the dispute will be resolved as specified in Section.4 "Terms and Conditions", Clause 4.22 – Governing Law and Dispute Resolution

10. SLA Change Control

10.1 General

It is acknowledged that this SLA may change as Purchaser's business needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

1. A process for negotiating changes to the SLA.
2. An issue management process for documenting and resolving particularly difficult issues.
3. Purchaser and Supplier management escalation process to be used in the event that an issue is not being resolved in a timely manner.

Any changes to the levels of service provided during the term of this agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this document and consequently the contract.

Changes/modification in the application, which require development efforts less than one month shall be considered as included in the scope. Any changes/modifications with require development effort more than one month will be considered for the payment based on mutually agreed terms and conditions.

10.2 SLA Change Process

Both the parties may amend this SLA by mutual agreement in accordance. Changes can be proposed by either party. Normally the forum for negotiating SLA changes will be Purchaser's monthly review meetings.

10.3 Version Control

All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

11. Management Escalation Procedures

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that purchaser and Supplier management are communicating at the appropriate levels. Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

1. All issues would be raised to the project nodal officer, which is completely responsible for the day to day aspects of the implementation/service. The project nodal officer shall classify the issues based on their severity level and resolve them within appropriate timelines.
2. If project nodal officer is unable to resolve an issue, the issue would be escalated to the top management with options/ risks detailed for decision. Top management will make decisions based on the options/ risks presented by the IT team.

12. APPENDIX D - BOUNDEN AGREEMENT TO ACCOMPANY THE TENDER

(To be submitted along with EMD)

(To be executed on a Rs.200 /- non-judicial Kerala Stamp Paper)

Articles of agreement executed on this.....the day of Two thousand and between the Kerala State Electricity Board Ltd. acting through (here enter the designation of the officer who has invited this tender (herein after referred to as "The KSEB Ltd") of the one part and Sri..... here enter name and address of the tenderer) hereinafter referred to as "The bounden" of the other part

WHEREAS in response to the invitation for tenders as per Notification No. datedand subsequent amendments thereto, the bounden has submitted to the KSEB Ltd a tender for the specified therein subject to the terms and conditions contained in the said tender documents.

WHEREAS the bounden has also deposited with the KSEB Ltd a sum of Rs. as earnest money for execution of an agreement undertaking the due fulfilment of the contract in case his tender is accepted by the KSEB Ltd.

Now THESE PRESENTS WITNESS and it is hereby mutually agreed as follows

1. In case the tender submitted by the bounden is accepted by the KSEB Ltd and the contract foris awarded to the bounden, the bounden shall within 15 days of acceptance of this tender execute an agreement with the KSEB Ltd incorporating all the terms and conditions under which the KSEB Limited accepts his tender.

2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract the KSEB Ltd shall have power and authority to recover from the bounden any loss or damages caused to the KSEB Ltd by such breach as may be determined by the KSEB Ltd, appropriating the earnest money deposited by the bounden and if the earnest money is found to be inadequate, the deficit amount may be recovered from the bounden and his properties movable and immovable also in the manner here in after contained.

3. All sums found due to the KSEB Ltd under or by virtue of this agreement shall be recoverable from the bounden and his properties, movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue and also in such other manner as the KSEB Ltd may deem fit.

In witness where of Sri.....(here enter name and designation) for and on behalf of the KSEB Ltd and Sri.....(here enter the name of the bounden) have hereunto set their hands the day and year shown against their respective signatures.

Signed by Sri.....(date)

In the presence of witness.

- 1.
- 2.

Signed by Shri.....(date)

In the presence of witness

- 1.
- 2.

13. APPENDIX E- DECLARATION

DECLARATION CERTIFICATE

We do hereby declare that the contents of the offer submitted vide No. against this tender (Tender No. dated) have been given after fully understanding and the same are true and complete in every particular and that if any untrue abetment/information contained therein, the said offer shall be considered absolutely null and void and we shall be liable for any penal action as per the provisions of Law for the time being in force.

1. I/We Partner/Legal Attorney/Proprietor/Accredited Representative of M/s..... declare that we are submitting our tender for the supply of materials/execution of work vide our offer No. dated
2. The contents of the offer given after fully understanding and all information furnished by me/us are correct and true and complete in every respect.
3. All documents/credentials submitted along with the tender are genuine, authentic, true and valid.
4. If any information or document submitted is found to be false/incorrect, the said offer shall be considered absolutely null & void and action as deemed fit may be taken against me/us including termination of the contract, forfeiture of all dues including Earnest Money Deposit/Security Deposit and blacklisting of my/our firm and all partners of the firm as per provisions of Law.

Place:
Date:

Signature of the Tenderer

(Seal of the Firm)

KS/EB/2019/1000
Tender No. 1000/2019

14. APPENDIX F- NON-DISCLOSURE AGREEMENT (NDA)

Format for Non-Disclosure Agreement

This 'Non – Disclosure Agreement' is entered on this the day of, 20.... between Kerala State Electricity Board Limited, Vidyuthi Bhavanam, Pattom, Thiruvananthapuram, Kerala -695 004 represented by the Chief Engineer (IT,CR&CAPs), which expression unless excluded by or repugnant to the context or meaning thereof shall include his successors, representatives and assignees on the one part [hereinafter referred to as the 'Disclosing Party'] and the (the complete postal address) represented by its, which expression unless excluded by or repugnant to the context or meaning thereof shall include his successors, representatives and assignees on the other part [hereinafter referred to as the 'Receiving Party']. The said Non-disclosure Agreement is entered for the purpose of ensuring confidentiality of the data and other information associated with the contract and for the protection of such information from any unauthorized use and disclosure.

1. For purposes of this Agreement, “**Confidential Information**” shall mean *Information relating to the business, clients, customers, and business practices of the Disclosing Party and shall include but not limited to commercial, technical, scientific, operational, administrative, financial, marketing, business, or intellectual property nature or otherwise, whether oral or written, relating to disclosing party and any other information that is reasonably determined to be confidential or proprietary.*

but the same will not include information that:

- (i) *is now or thereafter becomes generally known or available to the public, through no act or omission on the part of the Receiving Party; or*
- (ii) *was known by the Receiving Party prior to receiving such information from the Disclosing Party and without restriction as to use or disclosure; or*
- (iii) *is rightfully acquired by the Receiving Party from a third party who has the right to disclose it and who provides it without restriction as to use or disclosure; or*
- (iv) *is independently developed by the Receiving Party without access to any Confidential Information of the Disclosing Party*

2. Receiving Party agrees:

- (i) *to maintain the Disclosing Party's Confidential Information in strict confidence;*
- (ii) *not to disclose such Confidential Information to any third parties; in any form and*

(iii) *not to use any such Confidential Information for any purpose except as specified in this Agreement.*

However, Receiving Party may disclose the Confidential Information to its partners/directors and employees, who have a bonafide need to know such Confidential Information for the Purpose and to perform quality or performance review processes. Each such partner/director and employee shall be bound by the terms of this agreement. Additionally, the Receiving Party may disclose such Confidential

Information to its professional advisers for the purposes of seeking advice and in the said circumstance the said professional advisers will be bound by confidentiality not less onerous than this Agreement. Nothing contained in this Agreement will restrict the Receiving Party from disclosing the Confidential Information to the extent required by any law or regulation; provided that the Receiving Party will beforehand make reasonable efforts to give the Disclosing Party advance notice of such disclosure required, to the extent the same is practical and legally permissible, in order to enable the Disclosing Party to prevent or limit such disclosure.

3. All Confidential Information remains the sole and exclusive property of the Disclosing Party. It is agreed that nothing in this Agreement will be construed as granting any rights to the Receiving Party, by license or otherwise, in or to any Confidential Information of the Disclosing Party, or any patent, copyright or other intellectual property or proprietary rights of the Disclosing Party, except as specified in this Agreement.
4. It is agreed that unless and until a definitive agreement is entered between the parties to this agreement with respect to the Purpose has been executed and delivered, neither Party will be under any legal obligation of any kind whatsoever with respect to achievement of such Purpose whether through written or oral expression by any of their partners, directors, officers, employees, stakeholders, agents, or any other representatives, fiduciaries or advisors.
5. All confidential information is provided by the disclosing party on an "AS IS" basis. Neither party makes any representations or warranties as to the accuracy or completeness of the Confidential Information, it being understood that neither party shall have any liability to the other party resulting from the use of the Confidential Information supplied by the Disclosing Party, except as may be expressly provided in a definitive agreement entered between the parties.
6. That no delay or failure in exercising any right, power or privilege hereunder shall be construed to be a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege hereunder.
7. Receiving Party acknowledges that unauthorized use or disclosure or threatened disclosure of the Confidential Information may cause irreparable harm and significant damages to the Disclosing

Party. Accordingly, Receiving Party agrees that the Disclosing Party will have absolute right to obtain immediate relief from the Receiving Party on account of any unauthorized use or disclosure or threatened disclosure of its Confidential Information, in addition to any other rights and remedies that it may have in law or otherwise without establishing any actual proof of damages.

8. Receiving Party shall treat the existence of this Agreement, its contents, and its subject matter as Confidential Information and require the written approval of Disclosing Party prior to any public acknowledgement of this Agreement, its contents, or its subject matter except as stated in clause 2 above.
9. This Agreement shall be governed by and construed in accordance with Indian laws and any dispute arising from it shall be subject to the exclusive jurisdiction of the Civil Courts at Thiruvananthapuram.
10. This Agreement is the complete and exclusive statement regarding the subject matter of this Agreement and supersedes all prior agreements, understandings, and communications, oral or written, between the parties regarding the subject matter of this Agreement. Receiving Party shall not assign this Agreement, in whole or in part, without the Disclosing Party's prior written consent, and any attempted assignment without such consent will be void.

IN WITNESS WHEREOF, the parties hereto have executed this Mutual Non-Disclosure Agreement.

KSEBL

.....

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

Witness

Signature: _____

Signature: _____

Name: _____

Name: _____

Designation: _____

Designation: _____

15. APPENDIX G- TRAINING

Training & Certification

- The bidder shall ensure comprehensive certification training to be conducted by the OEM for 10 KSEB officials within a period of 3 months from the date of commissioning of the project.
- The necessary study material for training shall be arranged by the bidder. The bidder shall provide all necessary means and expenses for SDWAN training (up to Expert level) to the KSEB staff without any extra cost to KSEB.
- The bidder shall provide a comprehensive training plan from Basic level up to Expert level (Highest). This should include all relevant study materials, lab access, etc. to carry out the training for the designated KSEB officials.
- The bidder shall ensure that training shall be offline (in-person) and shall include hands-on training session and labs along with theoretical sessions. A suitable venue for training shall be arranged by the Bidder after consultation with KSEB.
- The bidder shall ensure that training session should be conducted by OEM certified professional trainer / professional services resource.
- Cost of training material, trainer fees, accommodation and travel of trainer, training site and certification cost etc. shall be borne by the Bidder.

16. APPENDIX H – LIST OF OFFICES

Please refer Annexure 1 & 2

Annexure - 1			
List of Section Offices - Phase 1			
Sl.No	District	Parent_Office	Section_Office
1	THIRUVANANTHAPURAM	Electrical Sub Division Kattakada	Electrical Section Amboori
2	THIRUVANANTHAPURAM	Electrical Sub Division Kattakada	Electrical Section Kattakada
3	THIRUVANANTHAPURAM	Electrical Sub Division Kattakada	Electrical Section Maranalloor
4	THIRUVANANTHAPURAM	Electrical Sub Division Kattakada	Electrical Section Ottasekharamangalam
5	THIRUVANANTHAPURAM	Electrical Sub Division Kattakada	Electrical Section Poovachal
6	THIRUVANANTHAPURAM	Electrical Sub Division Peyad	Electrical Section Peyad
7	THIRUVANANTHAPURAM	Electrical Sub Division Peyad	Electrical Section Vellanadu
8	THIRUVANANTHAPURAM	Electrical Sub Division Peyad	Electrical Section Aryanad
9	THIRUVANANTHAPURAM	Electrical Sub Division Peyad	Electrical Section Malayinkeezh
10	THIRUVANANTHAPURAM	Electrical Sub Division Nedumangad	Electrical Section Nedumangad
11	THIRUVANANTHAPURAM	Electrical Sub Division Nedumangad	Electrical Section Chullimanoor
12	THIRUVANANTHAPURAM	Electrical Sub Division Nedumangad	Electrical Section Tholicode
13	THIRUVANANTHAPURAM	Electrical Sub Division Nedumangad	Electrical Section Uzhamalakkal
14	THIRUVANANTHAPURAM	Electrical Sub Division Venjarammoodu	Electrical Section Venjarammoodu
15	THIRUVANANTHAPURAM	Electrical Sub Division Venjarammoodu	Electrical Section Kanyakulangara
16	THIRUVANANTHAPURAM	Electrical Sub Division Venjarammoodu	Electrical Section Kallara
17	THIRUVANANTHAPURAM	Electrical Sub Division Venjarammoodu	Electrical Section Vamanapuram
18	THIRUVANANTHAPURAM	Electrical Sub Division, Palode	Electrical Section Palode
19	THIRUVANANTHAPURAM	Electrical Sub Division, Palode	Electrical Section Vithura
20	THIRUVANANTHAPURAM	Electrical Sub Division, Palode	Electrical Section Peringamala
21	THIRUVANANTHAPURAM	Electrical Sub Division Balaramapuram	Electrical Section Balaramapuram
22	THIRUVANANTHAPURAM	Electrical Sub Division Balaramapuram	Electrical Section Nemom
23	THIRUVANANTHAPURAM	Electrical Sub Division Balaramapuram	Electrical Section Kottukal
24	THIRUVANANTHAPURAM	Electrical Sub Division Balaramapuram	Electrical Section Kalliyoor
25	THIRUVANANTHAPURAM	Electrical Sub Division Neyyattinkara	Electrical Section Neyyattinkara
26	THIRUVANANTHAPURAM	Electrical Sub Division Neyyattinkara	Electrical Section Udiyankulangara
27	THIRUVANANTHAPURAM	Electrical Sub Division Neyyattinkara	Electrical Section Marayamuttom
28	THIRUVANANTHAPURAM	Electrical Sub Division Neyyattinkara	Electrical Section Kamukinkode
29	THIRUVANANTHAPURAM	Electrical Sub Division Neyyattinkara	Electrical Section Poozhikunnu
30	THIRUVANANTHAPURAM	Electrical Sub Division Parassala	Electrical Section Kunnathukal
31	THIRUVANANTHAPURAM	Electrical Sub Division Parassala	Electrical Section Parassala
32	THIRUVANANTHAPURAM	Electrical Sub Division Parassala	Electrical Section Uchakkada
33	THIRUVANANTHAPURAM	Electrical Sub Division Parassala	Electrical Section Vellarada
34	THIRUVANANTHAPURAM	Electrical Sub Division Vizhinjam	Electrical Section Poovar
35	THIRUVANANTHAPURAM	Electrical Sub Division Vizhinjam	Electrical Section Kanjiramkulam
36	THIRUVANANTHAPURAM	Electrical Sub Division Vizhinjam	Electrical Section Vizhinjam
37	THIRUVANANTHAPURAM	Electrical Sub Division Attingal	Electrical Section Attingal
38	THIRUVANANTHAPURAM	Electrical Sub Division Attingal	Electrical Section Avanavanchery
39	THIRUVANANTHAPURAM	Electrical Sub Division Beach Trivandrum	Electrical Section Sreevaraham
40	THIRUVANANTHAPURAM	Electrical Sub Division Beach Trivandrum	Electrical Section Pettah
41	THIRUVANANTHAPURAM	Electrical Sub Division Beach Trivandrum	Electrical Section Beach Trivandrum
42	THIRUVANANTHAPURAM	Electrical Sub Division Fort Trivandrum	Electrical Section Manacaud
43	THIRUVANANTHAPURAM	Electrical Sub Division Fort Trivandrum	Electrical Section Thiruvallam
44	THIRUVANANTHAPURAM	Electrical Sub Division Fort Trivandrum	Electrical Section Fort
45	THIRUVANANTHAPURAM	Electrical Sub Division Fort Trivandrum	Electrical Section Poonthura
46	THIRUVANANTHAPURAM	Electrical Sub Division Kadakkavur	Electrical Section Kadakkavoor
47	THIRUVANANTHAPURAM	Electrical Sub Division Kadakkavur	Electrical Section Chirayinkeezhu
48	THIRUVANANTHAPURAM	Electrical Sub Division Kadakkavur	Electrical Section Vakkom
49	THIRUVANANTHAPURAM	Electrical Sub Division Kallambalam	Electrical Section Palachira
50	THIRUVANANTHAPURAM	Electrical Sub Division Kallambalam	Electrical Section Kallambalam
51	THIRUVANANTHAPURAM	Electrical Sub Division Kallambalam	Electrical Section Pallickal
52	THIRUVANANTHAPURAM	Electrical Sub Division Kaniyapuram	Electrical Section Mangalapuram
53	THIRUVANANTHAPURAM	Electrical Sub Division Kaniyapuram	Electrical Section Pothencode
54	THIRUVANANTHAPURAM	Electrical Sub Division Kaniyapuram	Electrical Section Kaniyapuram
55	THIRUVANANTHAPURAM	Electrical Sub Division Kazhakkuttam	Electrical Section Sreekariam
56	THIRUVANANTHAPURAM	Electrical Sub Division Kazhakkuttam	Electrical Section Kulathur
57	THIRUVANANTHAPURAM	Electrical Sub Division Kazhakkuttam	Electrical Section Kazhakkuttam
58	THIRUVANANTHAPURAM	Electrical Sub Division Kesavadasapuram	Electrical Section Kesavadasapuram
59	THIRUVANANTHAPURAM	Electrical Sub Division Kesavadasapuram	Electrical Section Ulloor
60	THIRUVANANTHAPURAM	Electrical Sub Division Kesavadasapuram	Electrical Section Nalanchira

61	THIRUVANANTHAPURAM	Electrical Sub Division Kesavadasapuram	Electrical Section Vattappara
62	THIRUVANANTHAPURAM	Electrical Sub Division Kilimanoor	Electrical Section Kilimanoor
63	THIRUVANANTHAPURAM	Electrical Sub Division Kilimanoor	Electrical Section Madavoor
64	THIRUVANANTHAPURAM	Electrical Sub Division Kilimanoor	Electrical Section Nagaroor
65	THIRUVANANTHAPURAM	Electrical Sub Division Poojappura	Electrical Section Poojappura
66	THIRUVANANTHAPURAM	Electrical Sub Division Poojappura	Electrical Section Karamana
67	THIRUVANANTHAPURAM	Electrical Sub Division Poojappura	Electrical Section Thirumala
68	THIRUVANANTHAPURAM	Electrical Sub Division Puthenchanthai Trivandrum	Electrical Section Puthenchantha
69	THIRUVANANTHAPURAM	Electrical Sub Division Puthenchanthai Trivandrum	Electrical Section Thycaud
70	THIRUVANANTHAPURAM	Electrical Sub Division Puthenchanthai Trivandrum	Electrical Section Cantonment
71	THIRUVANANTHAPURAM	Electrical Sub Division Varkala	Electrical Section Edava
72	THIRUVANANTHAPURAM	Electrical Sub Division Varkala	Electrical Section Kedakulam
73	THIRUVANANTHAPURAM	Electrical Sub Division Varkala	Electrical Section Varkala
74	THIRUVANANTHAPURAM	Electrical Sub Division Vellayambalam	Electrical Section Kachani
75	THIRUVANANTHAPURAM	Electrical Sub Division Vellayambalam	Electrical Section Vellayambalam
76	THIRUVANANTHAPURAM	Electrical Sub Division Vellayambalam	Electrical Section Peroorkada
77	THIRUVANANTHAPURAM	Electrical Sub Division Vellayambalam	Electrical Section Vattiyoorkavu
78	THIRUVANANTHAPURAM	Electrical Sub Division Vellayambalam	Electrical Section Kudappanakunnu
79	KOTTAYAM	Electrical Sub Division Changanacherry	Electrical Section Changanacherry
80	KOTTAYAM	Electrical Sub Division Changanacherry	Electrical Section Kurichy
81	KOTTAYAM	Electrical Sub Division Karukachal	Electrical Section Karukachal
82	KOTTAYAM	Electrical Sub Division Karukachal	Electrical Section Manimala
83	KOTTAYAM	Electrical Sub Division Karukachal	Electrical Section Pathanadu
84	KOTTAYAM	Electrical Sub Division Thengana	Electrical Section Thengana
85	KOTTAYAM	Electrical Sub Division Thengana	Electrical Section Vakathanam
86	KOTTAYAM	Electrical Sub Division Thengana	Electrical Section Thrikodithanam
87	KOTTAYAM	Electrical Sub Division Kottayam	Electrical Section Kottayam (C)
88	KOTTAYAM	Electrical Sub Division Kottayam	Electrical Section Kottayam (E)
89	KOTTAYAM	Electrical Sub Division Gandhinagar	Electrical Section Gandhi Nagar
90	KOTTAYAM	Electrical Sub Division Gandhinagar	Electrical Section Aymanam
91	KOTTAYAM	Electrical Sub Division Gandhinagar	Electrical Section Kumarakom
92	KOTTAYAM	Electrical Sub Division Manarcadu	Electrical Section Manarcadu
93	KOTTAYAM	Electrical Sub Division Manarcadu	Electrical Section Ayarkunnam
94	KOTTAYAM	Electrical Sub Division Manarcadu	Electrical Section Puthuppally
95	KOTTAYAM	Electrical Sub Division Manarcadu	Electrical Section Meenadom
96	KOTTAYAM	Electrical Sub Division Pallom	Electrical Section Pallom
97	KOTTAYAM	Electrical Sub Division Pallom	Electrical Section Punja
98	KOTTAYAM	Electrical Sub Division Pallom	Electrical Section Nattakom
99	KOTTAYAM	Electrical Sub Division Ettumanoor	Electrical Section Athirampuzha
100	KOTTAYAM	Electrical Sub Division Ettumanoor	Electrical Section Ettumanoor
101	KOTTAYAM	Electrical Sub Division Ettumanoor	Electrical Section Kurupanthara
102	KOTTAYAM	Electrical Sub Division Ettumanoor	Electrical Section Neendoor
103	KOTTAYAM	Electrical Sub Division Kurvilangad	Electrical Section Kuravilangad
104	KOTTAYAM	Electrical Sub Division Kurvilangad	Electrical Section Thalayolaparambu
105	KOTTAYAM	Electrical Sub Division Kurvilangad	Electrical Section Kaduthuruthy
106	KOTTAYAM	Electrical Sub Division Kurvilangad	Electrical Section Peruva
107	KOTTAYAM	Electrical Sub Division Vaikom	Electrical Section Vaikom
108	KOTTAYAM	Electrical Sub Division Vaikom	Electrical Section Chempu
109	KOTTAYAM	Electrical Sub Division Vaikom	Electrical Section Thalayazham
110	KOLLAM	Electrical Sub Division Chathanoor	Electrical Section Chathanoor
111	KOLLAM	Electrical Sub Division Chathanoor	Electrical Section Paravoor
112	KOLLAM	Electrical Sub Division Chathanoor	Electrical Section Parippally
113	KOLLAM	Electrical Sub Division Chathanoor	Electrical Section, Poothakulam
114	KOLLAM	Electrical Sub Division Kottiyam	Electrical Section Kottiyam
115	KOLLAM	Electrical Sub Division Kottiyam	Electrical Section Kannanalloor
116	KOLLAM	Electrical Sub Division Kottiyam	Electrical Section Mayyanad
117	KOLLAM	Electrical Sub Division Karunagappally	Electrical Section Karunagappally(S)
118	KOLLAM	Electrical Sub Division Karunagappally	Electrical Section Chavara
119	KOLLAM	Electrical Sub Division Karunagappally	Electrical Section Thevalakkara
120	KOLLAM	Electrical Sub Division Karunagappally	Electrical Section Panmana
121	KOLLAM	Electrical Sub Division Oachira	Electrical Section Manapally
122	KOLLAM	Electrical Sub Division Oachira	Electrical Section Oachira
123	KOLLAM	Electrical Sub Division Oachira	Electrical Section Karunagappally(N)

124	KOLLAM	Electrical Sub Division Sasthamkotta	Electrical Section Sooranadu
125	KOLLAM	Electrical Sub Division Sasthamkotta	Electrical Section Mynagapally
126	KOLLAM	Electrical Sub Division Sasthamkotta	Electrical Section Sasthamkotta
127	KOLLAM	Electrical Sub Division Kollam	Electrical Section Olai
128	KOLLAM	Electrical Sub Division Kollam	Electrical Section Cantonment Kollam
129	KOLLAM	Electrical Sub Division Kollam	Electrical Section Kadappakkada
130	KOLLAM	Electrical Sub Division Pallimukku	Electrical Section Ayathil
131	KOLLAM	Electrical Sub Division Pallimukku	Electrical Section Pallimukku
132	KOLLAM	Electrical Sub Division Perinad	Electrical Section Perinad
133	KOLLAM	Electrical Sub Division Perinad	Electrical Section Kilikolloor
134	KOLLAM	Electrical Sub Division Perinad	Electrical Section Kanjiramkuzhy
135	KOLLAM	Electrical Sub Division Sakthikulangara	Electrical Section Sakthikulangara
136	KOLLAM	Electrical Sub Division Sakthikulangara	Electrical Section Thangasseri
137	KOLLAM	Electrical Sub Division Ayoor	Electrical Section Ayoor
138	KOLLAM	Electrical Sub Division Ayoor	Electrical Section Valakom
139	KOLLAM	Electrical Sub Division Ayoor	Electrical Section Chadayamangalam
140	KOLLAM	Electrical Sub Division Kottarakkara	Electrical Section Kottarakkara
141	KOLLAM	Electrical Sub Division Kottarakkara	Electrical Section Kulakkada
142	KOLLAM	Electrical Sub Division Kottarakkara	Electrical Section Puthoor
143	KOLLAM	Electrical Sub Division Kottarakkara	Electrical Section Chengamanad
144	KOLLAM	Electrical Sub Division Kottarakkara	Electrical Section, Kottarakkara East
145	KOLLAM	Electrical Sub Division Kottarakkara	Electrical Section, Pattazhy
146	KOLLAM	Electrical Sub Division Kundara	Electrical Section East kallada
147	KOLLAM	Electrical Sub Division Kundara	Electrical Section Veliyam
148	KOLLAM	Electrical Sub Division Kundara	Electrical Section Perumbuzha
149	KOLLAM	Electrical Sub Division Kundara	Electrical Section Nallila
150	KOLLAM	Electrical Sub Division Kundara	Electrical Section Oyoor
151	KOLLAM	Electrical Sub Division Kundara	Electrical Section Kundara
152	KOLLAM	Electrical Sub Division Kundara	Electrical Section Ezhukone
153	KOLLAM	Electrical Sub Division Punalur	Electrical Section Punalur
154	KOLLAM	Electrical Sub Division Punalur	Electrical Section Thenmala
155	KOLLAM	Electrical Sub Division Punalur	Electrical Section Pathanapuram
156	KOLLAM	Electrical Sub Division Punalur	Electrical Section Vilakkudy
157	KOLLAM	Electrical Sub Division Punalur	Electrical Section Anchal
158	KOLLAM	Electrical Sub Division Punalur	Electrical Section Kulathupuzha
159	KOLLAM	Electrical Sub Division Punalur	Electrical Section Kadakkal
160	KOLLAM	Electrical Sub Division Punalur	Electrical Section Karukon
161	KOLLAM	Electrical Sub Division Punalur	Electrical Section Chithara
162	KOLLAM	Electrical Sub Division Punalur	Electrical Section Piravanthur
163	KOLLAM	Electrical Sub Division Punalur	Electrical Section Anchal (West)
164	KOLLAM	Electrical Sub Division Punalur	Electrical Section Karavaloor
165	ERNAKULAM	Electrical Sub Division Central Ernakulam	Electrical Section Ernakulam Central
166	ERNAKULAM	Electrical Sub Division Central Ernakulam	Electrical Section Vaduthala
167	ERNAKULAM	Electrical Sub Division Central Ernakulam	Electrical Section Cheranalloor
168	ERNAKULAM	Electrical Sub Division College Ernakulam	Electrical Section Girinagar
169	ERNAKULAM	Electrical Sub Division College Ernakulam	Electrical Section College Ernakulam
170	ERNAKULAM	Electrical Sub Division College Ernakulam	Electrical Section Thevara
171	ERNAKULAM	Electrical Sub Division Palarivattom	Electrical Section Palarivattom
172	ERNAKULAM	Electrical Sub Division Palarivattom	Electrical Section Edappally
173	ERNAKULAM	Electrical Sub Division Palarivattom	Electrical Section Vennala
174	ERNAKULAM	Electrical Sub Division Palarivattom	Electrical Section Kaloor
175	ERNAKULAM	Electrical Sub Division Palluruthy	Electrical Section Palluruthy
176	ERNAKULAM	Electrical Sub Division Palluruthy	Electrical Section Kannamali
177	ERNAKULAM	Electrical Sub Division Palluruthy	Electrical Section Kumbalangi
178	ERNAKULAM	Electrical Sub Division Thoppumpady	Electrical Section Thoppumpady
179	ERNAKULAM	Electrical Sub Division Thoppumpady	Electrical Section Mattancherry
180	ERNAKULAM	Electrical Sub Division Thoppumpady	Electrical Section Fort Kochi
181	ERNAKULAM	Electrical Sub Division Vypeen	Electrical Section Vypeen
182	ERNAKULAM	Electrical Sub Division Vypeen	Electrical Section Njarakkal
183	ERNAKULAM	Electrical Sub Division Chottanikkara	Electrical Section Amballoor
184	ERNAKULAM	Electrical Sub Division Chottanikkara	Electrical Section Arakkunnam
185	ERNAKULAM	Electrical Sub Division Chottanikkara	Electrical Section Chottanikkara
186	ERNAKULAM	Electrical Sub Division Chottanikkara	Electrical Section Mulanthuruthy

187	ERNAKULAM	Electrical Sub Division Puthencruz	Electrical Section Kolencherry
188	ERNAKULAM	Electrical Sub Division Puthencruz	Electrical Section Puthencruz
189	ERNAKULAM	Electrical Sub Division Puthencruz	Electrical Section Thiruvaniyoor
190	ERNAKULAM	Electrical Sub Division Tripunithura	Electrical Section Tripunithura
191	ERNAKULAM	Electrical Sub Division Tripunithura	Electrical Section Udayamperoor
192	ERNAKULAM	Electrical Sub Division Tripunithura	Electrical Section Maradu
193	ERNAKULAM	Electrical Sub Division Tripunithura	Electrical Section Panangad
194	ERNAKULAM	Electrical Sub Division Tripunithura	Electrical Section Eror
195	ERNAKULAM	Electrical Sub Division Vyttila	Electrical Section Vyttila
196	ERNAKULAM	Electrical Sub Division Vyttila	Electrical Section Thrikkakara West
197	ERNAKULAM	Electrical Sub Division Vyttila	Electrical Section Thrikkakara
198	KOZHIKODE	Electrical Sub Division Balussery	Electrical Section Balussery
199	KOZHIKODE	Electrical Sub Division Balussery	Electrical Section Koottalida
200	KOZHIKODE	Electrical Sub Division Balussery	Electrical Section Kakkur
201	KOZHIKODE	Electrical Sub Division Balussery	Electrical Section Koorachundu
202	KOZHIKODE	Electrical Sub Division Thamarassery	Electrical Section Thamarassery
203	KOZHIKODE	Electrical Sub Division Thamarassery	Electrical Section Koduvally
204	KOZHIKODE	Electrical Sub Division Thamarassery	Electrical Section Unnikulam
205	KOZHIKODE	Electrical Sub Division Thamarassery	Electrical Section Puthuppady
206	KOZHIKODE	Electrical Sub Division Thiruvampady	Electrical Section Thiruvambady
207	KOZHIKODE	Electrical Sub Division Thiruvampady	Electrical Section Kodancheri
208	KOZHIKODE	Electrical Sub Division Thiruvampady	Electrical Section Koombara
209	KOZHIKODE	Electrical Sub Division Thiruvampady	Electrical Section Omassery
210	KOZHIKODE	Electrical Sub Division Feroke	Electrical Section Feroke
211	KOZHIKODE	Electrical Sub Division Feroke	Electrical Section Kadalundi
212	KOZHIKODE	Electrical Sub Division Feroke	Electrical Section Ramanattukara
213	KOZHIKODE	Electrical Sub Division Mankavu	Electrical Section Perumanna
214	KOZHIKODE	Electrical Sub Division Mankavu	Electrical Section Mankavu
215	KOZHIKODE	Electrical Sub Division Mankavu	Electrical Section Pantheerankavu
216	KOZHIKODE	Electrical Sub Division Kallai	Electrical Section, Areekkad
217	KOZHIKODE	Electrical Sub Division Kallai	Electrical Section Beach Kozhikode
218	KOZHIKODE	Electrical Sub Division Kallai	Electrical Section Kallai
219	KOZHIKODE	Electrical Sub Division Kallai	Electrical Section Beypore
220	KOZHIKODE	Electrical Sub Division Kovoov	Electrical Section Kovoov
221	KOZHIKODE	Electrical Sub Division Kovoov	Electrical Section Mavoov
222	KOZHIKODE	Electrical Sub Division Kovoov	Electrical Section Pottammal
223	KOZHIKODE	Electrical Sub Division Kakkodi	Electrical Section Kakkody
224	KOZHIKODE	Electrical Sub Division Kakkodi	Electrical Section Narikkuni
225	KOZHIKODE	Electrical Sub Division Kakkodi	Electrical Section Vellimadukunnu
226	KOZHIKODE	Electrical Sub Division Kakkodi	Electrical Section Chelannur
227	KOZHIKODE	Electrical Sub Division Kunnamangalam	Electrical Section Kunnamangalam
228	KOZHIKODE	Electrical Sub Division Kunnamangalam	Electrical Section Mukkam
229	KOZHIKODE	Electrical Sub Division Kunnamangalam	Electrical Section, Pannikode
230	KOZHIKODE	Electrical Sub Division Kunnamangalam	Electrical Section Kattangal
231	KOZHIKODE	Electrical Sub Division Nadakkavu	Electrical Section Karaparamba
232	KOZHIKODE	Electrical Sub Division Nadakkavu	Electrical Section Nadakkavu
233	KOZHIKODE	Electrical Sub Division Nadakkavu	Electrical Section Central Kozhikode
234	KOZHIKODE	Electrical Sub Division Westhill	Electrical Section Westhill
235	KOZHIKODE	Electrical Sub Division Westhill	Electrical Section Eranhikkal
236	KOZHIKODE	Electrical Sub Division Westhill	Electrical Section Atholy
237	KOZHIKODE	Electrical Sub Division Nadapuram	Electrical Section Edachery
238	KOZHIKODE	Electrical Sub Division Nadapuram	Electrical Section Parakkadavu
239	KOZHIKODE	Electrical Sub Division Nadapuram	Electrical Section Thuneri
240	KOZHIKODE	Electrical Sub Division Nadapuram	Electrical Section Parappupara
241	KOZHIKODE	Electrical Sub Division Nadapuram	Electrical Section Nadapuram
242	KOZHIKODE	Electrical Sub Division Perambra	Electrical Section Perambra (South)
243	KOZHIKODE	Electrical Sub Division Perambra	Electrical Section Meppayoor
244	KOZHIKODE	Electrical Sub Division Perambra	Electrical Section Naduvannoor
245	KANNUR	Electrical Sub Division Chovva	Electrical Section Peralasseri
246	KANNUR	Electrical Sub Division Chovva	Electrical Section Thayyil
247	KANNUR	Electrical Sub Division Chovva	Electrical Section Chovva
248	KANNUR	Electrical Sub Division Chovva	Electrical Section Kadachira
249	KANNUR	Electrical Sub Division Eachur	Electrical Section Eaichur

250	KANNUR	Electrical Sub Division Eachur	Electrical Section Chakkarakkal
251	KANNUR	Electrical Sub Division Eachur	Electrical Section Chalode
252	KANNUR	Electrical Sub Division Kannur	Electrical Section Pallikkunnu
253	KANNUR	Electrical Sub Division Kannur	Electrical Section Kannur
254	KANNUR	Electrical Sub Division Kannur	Electrical Section Burnassery
255	KANNUR	Electrical Sub Division Pappinisseri	Electrical Section Azhikode
256	KANNUR	Electrical Sub Division Pappinisseri	Electrical Section Pappinissery
257	KANNUR	Electrical Sub Division Pappinisseri	Electrical Section Cherukunnu
258	KANNUR	Electrical Sub Division Valapattanam	Electrical Section Kolachery
259	KANNUR	Electrical Sub Division Valapattanam	Electrical Section Mayyil
260	KANNUR	Electrical Sub Division Valapattanam	Electrical Section Valapattanam
261	KANNUR	Electrical Sub Division Kuthuparamb	Electrical Section Kuthuparamb
262	KANNUR	Electrical Sub Division Kuthuparamb	Electrical Section Patiam
263	KANNUR	Electrical Sub Division Kuthuparamb	Electrical Section Kathirur
264	KANNUR	Electrical Sub Division Kuthuparamb	Electrical Section Kolayad
265	KANNUR	Electrical Sub Division Panoor	Electrical Section Chokly
266	KANNUR	Electrical Sub Division Panoor	Electrical Section Panoor
267	KANNUR	Electrical Sub Division Panoor	Electrical Section Parad
268	KANNUR	Electrical Sub Division Panoor	Electrical Section Peringathur
269	KANNUR	Electrical Sub Division Pinarayi	Electrical Section Dharmadam
270	KANNUR	Electrical Sub Division Pinarayi	Electrical Section Vengad
271	KANNUR	Electrical Sub Division Pinarayi	Electrical Section Pinarayi
272	KANNUR	Electrical Sub Division Thalassery	Electrical Section Thalassery South
273	KANNUR	Electrical Sub Division Thalassery	Electrical Section Thalassery North
274	KANNUR	Electrical Sub Division Thalassery	Electrical Section Kodiyei
275	MALAPPURAM	Electrical Sub Division Areacode	Electrical Section Keezhuparamba
276	MALAPPURAM	Electrical Sub Division Areacode	Electrical Section Areacode
277	MALAPPURAM	Electrical Sub Division Areacode	Electrical Section Edavannappara
278	MALAPPURAM	Electrical Sub Division Areacode	Electrical Section Kizhissery
279	MALAPPURAM	Electrical Sub Division Kondotty	Electrical Section Kondotty
280	MALAPPURAM	Electrical Sub Division Kondotty	Electrical Section Pulikkal (P)
281	MALAPPURAM	Electrical Sub Division Kondotty	Electrical Section, Karad
282	MALAPPURAM	Electrical Sub Division Kondotty	Electrical Section Mundakkulam
283	MALAPPURAM	Electrical Sub Division Malappuram	Electrical Section Chattiparamba
284	MALAPPURAM	Electrical Sub Division Malappuram	Electrical Section Velluvambrom (P)
285	MALAPPURAM	Electrical Sub Division Malappuram	Electrical Section Malappuram East
286	MALAPPURAM	Electrical Sub Division Malappuram	Electrical Section Malappuram West
287	MALAPPURAM	Electrical Sub Division Manjeri (South)	Electrical Section Anakkayam
288	MALAPPURAM	Electrical Sub Division Manjeri (South)	Electrical Section Thrikkalangode
289	MALAPPURAM	Electrical Sub Division Manjeri (South)	Electrical Section Manjeri (South)
290	MALAPPURAM	Electrical Sub Division Manjeri (South)	Electrical Section Manjeri (North)
291	MALAPPURAM	Electrical Sub Division Edakkara	Electrical Section Moothedam
292	MALAPPURAM	Electrical Sub Division Makkaraparambu	Electrical Section Makkaraparambu
293	MALAPPURAM	Electrical Sub Division Makkaraparambu	Electrical Section Kolathur (P)
294	MALAPPURAM	Electrical Sub Division Makkaraparambu	Electrical Section Mankada
295	MALAPPURAM	Electrical Sub Division Makkaraparambu	Electrical Section Puzhakkattiri
296	MALAPPURAM	Electrical Sub Division Perinthalmanna	Electrical Section Pattikkad Chungam
297	MALAPPURAM	Electrical Sub Division Perinthalmanna	Electrical Section Pulamanthol
298	MALAPPURAM	Electrical Sub Division Perinthalmanna	Electrical Section Thazhecode
299	MALAPPURAM	Electrical Sub Division Perinthalmanna	Electrical Section Angadipuram
300	MALAPPURAM	Electrical Sub Division Perinthalmanna	Electrical Section Perinthalmanna

Annexure - 2**List of Section Offices - Phase 2**

Sl. No	District	Parent_Office	Section_Office
1	PATHANAMTHITTA	Electrical Sub Division Adoor	Electrical Section Adoor
2	PATHANAMTHITTA	Electrical Sub Division Adoor	Electrical Section Elavumthitta
3	PATHANAMTHITTA	Electrical Sub Division Adoor	Electrical Section Thengamom-Pallick
4	PATHANAMTHITTA	Electrical Sub Division Adoor	Electrical Section Kaippattoor
5	PATHANAMTHITTA	Electrical Sub Division Adoor	Electrical Section Pandalam Thekkekk
6	PATHANAMTHITTA	Electrical Sub Division Ezhamkulam	Electrical Section Ezhamkulam
7	PATHANAMTHITTA	Electrical Sub Division Ezhamkulam	Electrical Section Kalanjoor
8	PATHANAMTHITTA	Electrical Sub Division Ezhamkulam	Electrical Section Kadampanad
9	PATHANAMTHITTA	Electrical Sub Division Ezhamkulam	Electrical Section Enathu
10	PATHANAMTHITTA	Electrical Sub Division Kozhencherry	Electrical Section Ayroor Kathakali Gr
11	PATHANAMTHITTA	Electrical Sub Division Kozhencherry	Electrical Section Kozhencherry
12	PATHANAMTHITTA	Electrical Sub Division Kozhencherry	Electrical Section Aranmula
13	PATHANAMTHITTA	Electrical Sub Division Mallappally	Electrical Section Vaipur
14	PATHANAMTHITTA	Electrical Sub Division Mallappally	Electrical Section Vennikulam
15	PATHANAMTHITTA	Electrical Sub Division Mallappally	Electrical Section Mallappally
16	PATHANAMTHITTA	Electrical Sub Division Manippuzha	Electrical Section Manippuzha
17	PATHANAMTHITTA	Electrical Sub Division Manippuzha	Electrical Section Kadapra
18	PATHANAMTHITTA	Electrical Sub Division Pandalam	Electrical Section Pandalam
19	PATHANAMTHITTA	Electrical Sub Division Pandalam	Electrical Section Kulanada
20	PATHANAMTHITTA	Electrical Sub Division Pathanamthitta	Electrical Section Vakayar
21	PATHANAMTHITTA	Electrical Sub Division Pathanamthitta	Electrical Section Pathanamthitta
22	PATHANAMTHITTA	Electrical Sub Division Pathanamthitta	Electrical Section Kumbazha
23	PATHANAMTHITTA	Electrical Sub Division Pathanamthitta	Electrical Section Konni
24	PATHANAMTHITTA	Electrical Sub Division Ranny	Electrical Section Ranny(N)
25	PATHANAMTHITTA	Electrical Sub Division Ranny	Electrical Section Vechoochira
26	PATHANAMTHITTA	Electrical Sub Division Ranny	Electrical Section Ranny(S)
27	PATHANAMTHITTA	Electrical Sub Division Thiruvalla	Electrical Section Thiruvalla
28	PATHANAMTHITTA	Electrical Sub Division Thiruvalla	Electrical Section Thottabhagam
29	PATHANAMTHITTA	Electrical Sub Division Thiruvalla	Electrical Section Kumbanad
30	PATHANAMTHITTA	Electrical Sub Division Vadasserikkara	Electrical Section Vadasserikkara
31	PATHANAMTHITTA	Electrical Sub Division Vadasserikkara	Electrical Section Kakkad
32	PATHANAMTHITTA	Electrical Sub Division Vadasserikkara	Electrical Section Ranny Perunad
33	IDUKKI	Electrical Sub Division Chithirapuram	Electrical Section Chithirapuram
34	IDUKKI	Electrical Sub Division Chithirapuram	Electrical Section Marayoor
35	IDUKKI	Electrical Sub Division Chithirapuram	Electrical Section Adimali
36	IDUKKI	Electrical Sub Division Chithirapuram	Electrical Section Rajakumari
37	IDUKKI	Electrical Sub Division Chithirapuram	Electrical Section Kambilikandom
38	IDUKKI	Electrical Sub Division Chithirapuram	Electrical Section Rajakkad
39	IDUKKI	Electrical Sub Division Kattappana	Electrical Section Kattappana
40	IDUKKI	Electrical Sub Division Kattappana	Electrical Section Vandenmedu
41	IDUKKI	Electrical Sub Division Kattappana	Electrical Section Anakkara
42	IDUKKI	Electrical Sub Division Kattappana	Electrical Section Kanchiyar
43	IDUKKI	Electrical Sub Division Nedumkandam	Electrical Section Udumbanchola
44	IDUKKI	Electrical Sub Division Nedumkandam	Electrical Section Nedumkandam
45	IDUKKI	Electrical Sub Division Nedumkandam	Electrical Section Thookkupalam
46	IDUKKI	Electrical Sub Division Nedumkandam	Electrical Section Erattayar
47	IDUKKI	Electrical Sub Division Vazhathoppe	Electrical Section Painavu
48	IDUKKI	Electrical Sub Division Vazhathoppe	Electrical Section Murikkassery
49	IDUKKI	Electrical Sub Division Vazhathoppe	Electrical Section Kanjikkuzhy
50	IDUKKI	Electrical Sub Division Vandiperiyar	Electrical Section Peermade
51	IDUKKI	Electrical Sub Division Vandiperiyar	Electrical Section Upputhara
52	IDUKKI	Electrical Sub Division Vandiperiyar	Electrical Section Vandiperiyar
53	IDUKKI	Electrical Sub Division Vandiperiyar	Electrical Section Kumily
54	IDUKKI	Electrical Sub Division Vandiperiyar	Electrical Section Peruvanathanam
55	IDUKKI	Electrical Sub Division Thodupuzha	Electrical Section Purappuzha
56	IDUKKI	Electrical Sub Division Thodupuzha	Electrical Section Nol Thodupuzha
57	IDUKKI	Electrical Sub Division Thodupuzha	Electrical Section Moolamatom
58	IDUKKI	Electrical Sub Division Thodupuzha East	Electrical Section Alakode Thodupuzh

59	IDUKKI	Electrical Sub Division Thodupuzha East	Electrical Section Noll Thodupuzha
60	IDUKKI	Electrical Sub Division Thodupuzha East	Electrical Section Karimannoor
61	IDUKKI	Electrical Sub Division Thodupuzha East	Electrical Section Vannappuram
62	KOTTAYAM	Electrical Sub Division Erattupetta	Electrical Section Pinnakkanadu
63	KOTTAYAM	Electrical Sub Division Erattupetta	Electrical Section Erattupetta
64	KOTTAYAM	Electrical Sub Division Erattupetta	Electrical Section Poonjar
65	KOTTAYAM	Electrical Sub Division Erattupetta	Electrical Section Teekoy
66	KOTTAYAM	Electrical Sub Division Kanjirappally	Electrical Section Erumely
67	KOTTAYAM	Electrical Sub Division Kanjirappally	Electrical Section Mundakkayam
68	KOTTAYAM	Electrical Sub Division Kanjirappally	Electrical Section Kanjirappally
69	KOTTAYAM	Electrical Sub Division Kanjirappally	Electrical Section Kootickal
70	KOTTAYAM	Electrical Sub Division Kanjirappally	Electrical Section Parathode
71	KOTTAYAM	Electrical Sub Division Pala	Electrical Section Pala
72	KOTTAYAM	Electrical Sub Division Pala	Electrical Section Kidangoor
73	KOTTAYAM	Electrical Sub Division Pala	Electrical Section Paika
74	KOTTAYAM	Electrical Sub Division Ponkunnam	Electrical Section Pallikkathodu
75	KOTTAYAM	Electrical Sub Division Ponkunnam	Electrical Section Vazhoor
76	KOTTAYAM	Electrical Sub Division Ponkunnam	Electrical Section Pampady
77	KOTTAYAM	Electrical Sub Division Ponkunnam	Electrical Section Kooroppada
78	KOTTAYAM	Electrical Sub Division Ponkunnam	Electrical Section Ponkunnam
79	KOTTAYAM	Electrical Sub Division Ramapuram	Electrical Section Marangattupilly
80	KOTTAYAM	Electrical Sub Division Ramapuram	Electrical Section Ramapuram
81	KOTTAYAM	Electrical Sub Division Ramapuram	Electrical Section Kollappally
82	KOTTAYAM	Electrical Sub Division Ramapuram	Electrical Section Bharananganam
83	ALAPPUZHA	Electrical Sub Division Alappuzha (North)	Electrical Section Alappuzha (Town)
84	ALAPPUZHA	Electrical Sub Division Alappuzha (North)	Electrical Section Alappuzha (South)
85	ALAPPUZHA	Electrical Sub Division Alappuzha (North)	Electrical Section Alappuzha (North)
86	ALAPPUZHA	Electrical Sub Division Ambalappuzha	Electrical Section Punnappa
87	ALAPPUZHA	Electrical Sub Division Ambalappuzha	Electrical Section Ambalappuzha
88	ALAPPUZHA	Electrical Sub Division Edathua	Electrical Section Thakazhy
89	ALAPPUZHA	Electrical Sub Division Edathua	Electrical Section Edathua
90	ALAPPUZHA	Electrical Sub Division Edathua	Electrical Section Champakulam
91	ALAPPUZHA	Electrical Sub Division Mancombu	Electrical Section Mancombu
92	ALAPPUZHA	Electrical Sub Division Mancombu	Electrical Section Kidangara
93	ALAPPUZHA	Electrical Sub Division Mancombu	Electrical Section Kainakary
94	ALAPPUZHA	Electrical Sub Division Cherthala	Electrical Section Cherthala
95	ALAPPUZHA	Electrical Sub Division Cherthala	Electrical Section Thannermukkom
96	ALAPPUZHA	Electrical Sub Division Cherthala	Electrical Section Cherthala East
97	ALAPPUZHA	Electrical Sub Division Pattanakkad	Electrical Section Kuthiyathodu
98	ALAPPUZHA	Electrical Sub Division Pattanakkad	Electrical Section Pattanakkad
99	ALAPPUZHA	Electrical Sub Division Pattanakkad	Electrical Section Arthunkal
100	ALAPPUZHA	Electrical Sub Division Poochakkal	Electrical Section Poochakkal
101	ALAPPUZHA	Electrical Sub Division Poochakkal	Electrical Section Aroor
102	ALAPPUZHA	Electrical Sub Division Poochakkal	Electrical Section Arookutty
103	ALAPPUZHA	Electrical Sub Division SLPuram	Electrical Section Muhamma
104	ALAPPUZHA	Electrical Sub Division SLPuram	Electrical Section SLPuram
105	ALAPPUZHA	Electrical Sub Division SLPuram	Electrical Section Pathirappally
106	ALAPPUZHA	Electrical Sub Division SLPuram	Electrical Section Kalavoor
107	ALAPPUZHA	Electrical Sub Division Chengannoor	Electrical Section Chengannoor
108	ALAPPUZHA	Electrical Sub Division Chengannoor	Electrical Section Mulakkuzha
109	ALAPPUZHA	Electrical Sub Division Chengannoor	Electrical Section Kallisserry
110	ALAPPUZHA	Electrical Sub Division Kollakadavu	Electrical Section Venmony
111	ALAPPUZHA	Electrical Sub Division Kollakadavu	Electrical Section Kollakadavu
112	ALAPPUZHA	Electrical Sub Division Kollakadavu	Electrical Section Chennithala
113	ALAPPUZHA	Electrical Sub Division Kollakadavu	Electrical Section Mannar
114	ALAPPUZHA	Electrical Sub Division Haripad	Electrical Section Haripad
115	ALAPPUZHA	Electrical Sub Division Haripad	Electrical Section Karuvatta
116	ALAPPUZHA	Electrical Sub Division Haripad	Electrical Section Karthikappally
117	ALAPPUZHA	Electrical Sub Division Haripad	Electrical Section Pallippad
118	ALAPPUZHA	Electrical Sub Division Haripad	Electrical Section Arattupuzha
119	ALAPPUZHA	Electrical Sub Division Kayamkulam	Electrical Section Kayamkulam West

120	ALAPPUZHA	Electrical Sub Division Kayamkulam	Electrical Section Muthukulam
121	ALAPPUZHA	Electrical Sub Division Charummood	Electrical Section Charummood
122	ALAPPUZHA	Electrical Sub Division Charummood	Electrical Section Vallikunnam
123	ALAPPUZHA	Electrical Sub Division Charummood	Electrical Section Kattanam
124	ALAPPUZHA	Electrical Sub Division Charummood	Electrical Section Nooranadu
125	ALAPPUZHA	Electrical Sub Division Kayamkulam	Electrical Section Chepad
126	ALAPPUZHA	Electrical Sub Division Mavelikkara	Electrical Section Mavelikkara
127	ALAPPUZHA	Electrical Sub Division Mavelikkara	Electrical Section Thattarambalam
128	ALAPPUZHA	Electrical Sub Division Mavelikkara	Electrical Section Krishnapuram
129	ALAPPUZHA	Electrical Sub Division Mavelikkara	Electrical Section Kayamkulam East
130	ERNAKULAM	Electrical Sub Division Aluva Town	Electrical Section Aluva North
131	ERNAKULAM	Electrical Sub Division Aluva Town	Electrical Section Aluva West
132	ERNAKULAM	Electrical Sub Division Aluva Town	Electrical Section Aluva Town
133	ERNAKULAM	Electrical Sub Division Aluva Town	Electrical Section Edayar
134	ERNAKULAM	Electrical Sub Division Chengamanad	Electrical Section Chengamanad
135	ERNAKULAM	Electrical Sub Division Chengamanad	Electrical Section Athani
136	ERNAKULAM	Electrical Sub Division Chengamanad	Electrical Section Chowara
137	ERNAKULAM	Electrical Sub Division Chengamanad	Electrical Section Kunnukara
138	ERNAKULAM	Electrical Sub Division Kalamassery	Electrical Section Kalamassery
139	ERNAKULAM	Electrical Sub Division Kalamassery	Electrical Section Thevakkal
140	ERNAKULAM	Electrical Sub Division Kalamassery	Electrical Section Eloor
141	ERNAKULAM	Electrical Sub Division Angamaly	Electrical Section Mookkannur
142	ERNAKULAM	Electrical Sub Division Angamaly	Electrical Section Angamaly
143	ERNAKULAM	Electrical Sub Division Angamaly	Electrical Section Parakadavu
144	ERNAKULAM	Electrical Sub Division Angamaly	Electrical Section Karukutty
145	ERNAKULAM	Electrical Sub Division Kalady	Electrical Section Malayattoor
146	ERNAKULAM	Electrical Sub Division Kalady	Electrical Section Kalady
147	ERNAKULAM	Electrical Sub Division Kalady	Electrical Section Thuravoor
148	ERNAKULAM	Electrical Sub Division Kalady	Electrical Section Manjapra
149	ERNAKULAM	Electrical Sub Division Kalady	Electrical Section Kanjoor
150	ERNAKULAM	Electrical Sub Division Kothamangalam	Electrical Section Nellikuzhy
151	ERNAKULAM	Electrical Sub Division Kothamangalam	Electrical Section Kothamangalam I
152	ERNAKULAM	Electrical Sub Division Kothamangalam	Electrical Section Kothamangalam II
153	ERNAKULAM	Electrical Sub Division Kothamangalam	Electrical Section Keerampara
154	ERNAKULAM	Electrical Sub Division Moovattupuzha	Electrical Section Moovattupuzha I
155	ERNAKULAM	Electrical Sub Division Moovattupuzha	Electrical Section Pothanicaad
156	ERNAKULAM	Electrical Sub Division Moovattupuzha	Electrical Section Kalloorkad
157	ERNAKULAM	Electrical Sub Division Moovattupuzha	Electrical Section Manjalloor
158	ERNAKULAM	Electrical Sub Division Piravom	Electrical Section Pampakuda
159	ERNAKULAM	Electrical Sub Division Piravom	Electrical Section Piravom
160	ERNAKULAM	Electrical Sub Division Piravom	Electrical Section Koothattukulam
161	ERNAKULAM	Electrical Sub Division Velloorkunnam	Electrical Section Moovattupuzha II
162	ERNAKULAM	Electrical Sub Division Velloorkunnam	Electrical Section Velloorkunnam
163	ERNAKULAM	Electrical Sub Division Velloorkunnam	Electrical Section Valayanchirangara
164	ERNAKULAM	Electrical Sub Division Chennamangalam	Electrical Section Chennamangalam
165	ERNAKULAM	Electrical Sub Division Chennamangalam	Electrical Section Vadakkekara
166	ERNAKULAM	Electrical Sub Division Chennamangalam	Electrical Section Moothakunnam
167	ERNAKULAM	Electrical Sub Division NParavur	Electrical Section NParavur
168	ERNAKULAM	Electrical Sub Division NParavur	Electrical Section Cherai
169	ERNAKULAM	Electrical Sub Division NParavur	Electrical Section Mannam
170	ERNAKULAM	Electrical Sub Division Varapuzha	Electrical Section Varapuzha
171	ERNAKULAM	Electrical Sub Division Varapuzha	Electrical Section Ezhikkara
172	ERNAKULAM	Electrical Sub Division Varapuzha	Electrical Section Alangad
173	ERNAKULAM	Electrical Sub Division Kizhakkambalam	Electrical Section Vengola
174	ERNAKULAM	Electrical Sub Division Kizhakkambalam	Electrical Section Kizhakkambalam
175	ERNAKULAM	Electrical Sub Division Kizhakkambalam	Electrical Section Pattimattom
176	ERNAKULAM	Electrical Sub Division Kizhakkambalam	Electrical Section Edathala
177	ERNAKULAM	Electrical Sub Division Kuruppampady	Electrical Section Koovapady
178	ERNAKULAM	Electrical Sub Division Kuruppampady	Electrical Section Kuruppampady
179	ERNAKULAM	Electrical Sub Division Kuruppampady	Electrical Section Vengoor
180	ERNAKULAM	Electrical Sub Division Perumbavoor	Electrical Section Perumbavoor

181	ERNAKULAM	Electrical Sub Division Perumbavoor	Electrical Section Vazhakkulam
182	ERNAKULAM	Electrical Sub Division Perumbavoor	Electrical Section Okkal
183	THRISSUR	Electrical Sub Division Guruvayur	Electrical Section Guruvayur
184	THRISSUR	Electrical Sub Division Guruvayur	Electrical Section Chavakkad
185	THRISSUR	Electrical Sub Division Guruvayur	Electrical Section Beach Chavakkad
186	THRISSUR	Electrical Sub Division Kechery	Electrical Section Mundur
187	THRISSUR	Electrical Sub Division Kechery	Electrical Section Koonamoochy
188	THRISSUR	Electrical Sub Division Kechery	Electrical Section Kechery
189	THRISSUR	Electrical Sub Division Kunnankulam	Electrical Section Perumbilavu
190	THRISSUR	Electrical Sub Division Kunnankulam	Electrical Section Kunnankulam
191	THRISSUR	Electrical Sub Division Kunnankulam	Electrical Section Pazhanji
192	THRISSUR	Electrical Sub Division Punnayurkulam	Electrical Section Big Bazar
193	THRISSUR	Electrical Sub Division Punnayurkulam	Electrical Section Punnayurkulam
194	THRISSUR	Electrical Sub Division Ayyanthole	Electrical Section Ayyanthole
195	THRISSUR	Electrical Sub Division Ayyanthole	Electrical Section Arimboor
196	THRISSUR	Electrical Sub Division Koorkenchery	Electrical Section Koorkenchery
197	THRISSUR	Electrical Sub Division Koorkenchery	Electrical Section Ammadam
198	THRISSUR	Electrical Sub Division Koorkenchery	Electrical Section Kuriachira
199	THRISSUR	Electrical Sub Division Mannuthy (Madakkal)	Electrical Section Pattikkad
200	THRISSUR	Electrical Sub Division Mannuthy (Madakkal)	Electrical Section Nadathara
201	THRISSUR	Electrical Sub Division Mannuthy (Madakkal)	Electrical Section Mannuthy (Madakkal)
202	THRISSUR	Electrical Sub Division Ollur	Electrical Section Marathakkara
203	THRISSUR	Electrical Sub Division Ollur	Electrical Section Puthur
204	THRISSUR	Electrical Sub Division Ollur	Electrical Section Ollur
205	THRISSUR	Electrical Sub Division Kandassankadavu	Electrical Section Vadanappilly
206	THRISSUR	Electrical Sub Division Kandassankadavu	Electrical Section Kandasankadavu
207	THRISSUR	Electrical Sub Division Kandassankadavu	Electrical Section Venkitangu
208	THRISSUR	Electrical Sub Division Muduvara	Electrical Section Muduvara
209	THRISSUR	Electrical Sub Division Muduvara	Electrical Section Parappur
210	THRISSUR	Electrical Sub Division Muduvara	Electrical Section Pavarty
211	THRISSUR	Electrical Sub Division Viyyur	Electrical Section Mamavarmapuram
212	THRISSUR	Electrical Sub Division Viyyur	Electrical Section Mulamkunnathukavu
213	THRISSUR	Electrical Sub Division Viyyur	Electrical Section Viyyur
214	THRISSUR	Electrical Sub Division Chelakkara	Electrical Section Chelakkara
215	THRISSUR	Electrical Sub Division Chelakkara	Electrical Section Pazhayannur
216	THRISSUR	Electrical Sub Division Chelakkara	Electrical Section Thiruvilwamala
217	THRISSUR	Electrical Sub Division Kundannur	Electrical Section Kundannur
218	THRISSUR	Electrical Sub Division Kundannur	Electrical Section Desamangalam
219	THRISSUR	Electrical Sub Division Kundannur	Electrical Section Cheruthuruthy
220	THRISSUR	Electrical Sub Division Wadakkanchery	Electrical Section Wadakkanchery
221	THRISSUR	Electrical Sub Division Wadakkanchery	Electrical Section Punnamparambu
222	THRISSUR	Electrical Sub Division Wadakkanchery	Electrical Section Medical College (Pe
223	THRISSUR	Electrical Sub Division Chalakudy	Electrical Section Chalakudy
224	THRISSUR	Electrical Sub Division Chalakudy	Electrical Section Pariyaram(Chalakk
225	THRISSUR	Electrical Sub Division Chalakudy	Electrical Section Vellikulangara
226	THRISSUR	Electrical Sub Division Chalakudy	Electrical Section Kuttichira
227	THRISSUR	Electrical Sub Division Kodakara	Electrical Section Kodakara
228	THRISSUR	Electrical Sub Division Kodakara	Electrical Section Pudukkad
229	THRISSUR	Electrical Sub Division Kodakara	Electrical Section Varandarappilly
230	THRISSUR	Electrical Sub Division Koratty	Electrical Section Annamanada
231	THRISSUR	Electrical Sub Division Koratty	Electrical Section Koratty
232	THRISSUR	Electrical Sub Division Koratty	Electrical Section Meloor
233	THRISSUR	Electrical Sub Division Mala	Electrical Section Puthenvelikkara
234	THRISSUR	Electrical Sub Division Mala	Electrical Section Kuzhur
235	THRISSUR	Electrical Sub Division Mala	Electrical Section Mala
236	THRISSUR	Electrical Sub Division Karuvannur	Electrical Section Cherpu
237	THRISSUR	Electrical Sub Division Karuvannur	Electrical Section Karuvannur
238	THRISSUR	Electrical Sub Division Karuvannur	Electrical Section Parappukkara
239	THRISSUR	Electrical Sub Division Kattoor	Electrical Section Chirakkal
240	THRISSUR	Electrical Sub Division Kattoor	Electrical Section Kattoor
241	THRISSUR	Electrical Sub Division Kattoor	Electrical Section Irinjalakuda Nol

242	THRISSUR	Electrical Sub Division Vellangallur	Electrical Section Vellangallur
243	THRISSUR	Electrical Sub Division Vellangallur	Electrical Section Irinjalakuda Noll
244	THRISSUR	Electrical Sub Division Vellangallur	Electrical Section Kombodinjammakkal
245	THRISSUR	Electrical Sub Division Vellangallur	Electrical Section Puthenchira
246	THRISSUR	Electrical Sub Division Kodungallur	Electrical Section Kodungallur Noll
247	THRISSUR	Electrical Sub Division Kodungallur	Electrical Section Kodungallur Noll
248	THRISSUR	Electrical Sub Division Kodungallur	Electrical Section Eriyad
249	THRISSUR	Electrical Sub Division Perinjanam	Electrical Section Perinjanam
250	THRISSUR	Electrical Sub Division Perinjanam	Electrical Section Kaipamangalam
251	THRISSUR	Electrical Sub Division Perinjanam	Electrical Section Mathilakam
252	THRISSUR	Electrical Sub Division Triprayar	Electrical Section Peringottukara
253	THRISSUR	Electrical Sub Division Triprayar	Electrical Section Valappad
254	THRISSUR	Electrical Sub Division Triprayar	Electrical Section Thalikulam
255	THRISSUR	Electrical Sub Division Triprayar	Electrical Section Triprayar
256	PALAKKAD	Electrical Sub Division Alathur	Electrical Section Padoor
257	PALAKKAD	Electrical Sub Division Alathur	Electrical Section Pudukode
258	PALAKKAD	Electrical Sub Division Alathur	Electrical Section Alathur
259	PALAKKAD	Electrical Sub Division Alathur	Electrical Section Kunnisseri
260	PALAKKAD	Electrical Sub Division Chittur	Electrical Section Chittur
261	PALAKKAD	Electrical Sub Division Chittur	Electrical Section Kozhinjampara
262	PALAKKAD	Electrical Sub Division Chittur	Electrical Section Velanthavalam
263	PALAKKAD	Electrical Sub Division Koduvayur	Electrical Section Thathamangalam
264	PALAKKAD	Electrical Sub Division Koduvayur	Electrical Section Koduvayoor
265	PALAKKAD	Electrical Sub Division Koduvayur	Electrical Section Pudunagaram
266	PALAKKAD	Electrical Sub Division Koduvayur	Electrical Section Vandithavalam
267	PALAKKAD	Electrical Sub Division Kollengode	Electrical Section Kollengode
268	PALAKKAD	Electrical Sub Division Kollengode	Electrical Section Muthalamada
269	PALAKKAD	Electrical Sub Division Kollengode	Electrical Section Nelliampathy(P)
270	PALAKKAD	Electrical Sub Division Kollengode	Electrical Section Vadavannur
271	PALAKKAD	Electrical Sub Division Kuzhalmannam	Electrical Section Kuzhalmannam
272	PALAKKAD	Electrical Sub Division Kuzhalmannam	Electrical Section Kottayi
273	PALAKKAD	Electrical Sub Division Kuzhalmannam	Electrical Section Kuthannur
274	PALAKKAD	Electrical Sub Division Kuzhalmannam	Electrical Section Peringottukurissi
275	PALAKKAD	Electrical Sub Division Vadakkumcherry	Electrical Section Nenmara
276	PALAKKAD	Electrical Sub Division Vadakkumcherry	Electrical Section Mudappallur
277	PALAKKAD	Electrical Sub Division Vadakkumcherry	Electrical Section Vadakkumcherry
278	PALAKKAD	Electrical Sub Division Vadakkumcherry	Electrical Section Kizhakkancherry
279	PALAKKAD	Electrical Sub Division Vadakkumcherry	Electrical Section Kayaradi
280	PALAKKAD	Electrical Sub Division Kalpathy	Electrical Section Kalpathy
281	PALAKKAD	Electrical Sub Division Kalpathy	Electrical Section Olavakkode
282	PALAKKAD	Electrical Sub Division Kalpathy	Electrical Section Malampuzha
283	PALAKKAD	Electrical Sub Division Kanjikode	Electrical Section Elappully
284	PALAKKAD	Electrical Sub Division Kanjikode	Electrical Section Kanjikode
285	PALAKKAD	Electrical Sub Division Kanjikode	Electrical Section Walayar
286	PALAKKAD	Electrical Sub Division Kongad	Electrical Section Kadampazhipuram
287	PALAKKAD	Electrical Sub Division Kongad	Electrical Section Kongad
288	PALAKKAD	Electrical Sub Division Kongad	Electrical Section Mundur
289	PALAKKAD	Electrical Sub Division Parli	Electrical Section Pathiripala
290	PALAKKAD	Electrical Sub Division Parli	Electrical Section Melamuri
291	PALAKKAD	Electrical Sub Division Parli	Electrical Section Parli
292	PALAKKAD	Electrical Sub Division Sulthanpet	Electrical Section Sulthanpet
293	PALAKKAD	Electrical Sub Division Sulthanpet	Electrical Section Marutha Road
294	PALAKKAD	Electrical Sub Division Sulthanpet	Electrical Section Bigbazar
295	PALAKKAD	Electrical Sub Division Agali	Electrical Section Agali
296	PALAKKAD	Electrical Sub Division Agali	Electrical Section Kottathara
297	PALAKKAD	Electrical Sub Division Mannarkkad	Electrical Section Mannarkkad
298	PALAKKAD	Electrical Sub Division Mannarkkad	Electrical Section Alanellur
299	PALAKKAD	Electrical Sub Division Mannarkkad	Electrical Section Thachampara
300	PALAKKAD	Electrical Sub Division Mannarkkad	Electrical Section Kumaramputhur
301	PALAKKAD	Electrical Sub Division Mannarkkad	Electrical Section Kanjirapuzha
302	PALAKKAD	Electrical Sub Division Pattambi	Electrical Section Pattambi

303	PALAKKAD	Electrical Sub Division Pattambi	Electrical Section Thiruvegapura
304	PALAKKAD	Electrical Sub Division Pattambi	Electrical Section Koppam
305	PALAKKAD	Electrical Sub Division Pattambi	Electrical Section Ongallur
306	PALAKKAD	Electrical Sub Division Pattambi	ELECTRICAL SECTION VILAYUR
307	PALAKKAD	Electrical Sub Division Pattambi	Electrical Section Vallapuzha
308	PALAKKAD	Electrical Sub Division Pattambi	Electrical Section Muthuthala
309	PALAKKAD	Electrical Sub Division Thrithala	Electrical Section Chalissery
310	PALAKKAD	Electrical Sub Division Thrithala	Electrical Section Thrithala
311	PALAKKAD	Electrical Sub Division Thrithala	Electrical Section Koottupatha
312	PALAKKAD	Electrical Sub Division Thrithala	Electrical Section Kumbidi
313	PALAKKAD	Electrical Sub Division Thrithala	Electrical Section Padinjarangadi
314	PALAKKAD	Electrical Sub Division Thrithala	Electrical Section Peringode
315	PALAKKAD	Electrical Sub Division Cherplassery	Electrical Section Sreekrishnapuram
316	PALAKKAD	Electrical Sub Division Cherplassery	Electrical Section Cherplassery
317	PALAKKAD	Electrical Sub Division Cherplassery	Electrical Section Kothakkurussi
318	PALAKKAD	Electrical Sub Division Cherplassery	Electrical Section Pengattiri
319	PALAKKAD	Electrical Sub Division Shoranur	Electrical Section Ambalappara
320	PALAKKAD	Electrical Sub Division Shoranur	Electrical Section Shoranur
321	PALAKKAD	Electrical Sub Division Shoranur	Electrical Section Lakkidi
322	PALAKKAD	Electrical Sub Division Shoranur	Electrical Section Ottappalam
323	PALAKKAD	Electrical Sub Division Shoranur	Electrical Section Vaniyamkulam
324	KOZHIKODE	Electrical Sub Division Perambra	Electrical Section Chakkittapara
325	KOZHIKODE	Electrical Sub Division Perambra	Electrical Section Perambra (North)
326	KOZHIKODE	Electrical Sub Division Kuttiady	Electrical Section Kakkattil
327	KOZHIKODE	Electrical Sub Division Kuttiady	Electrical Section Kutiady
328	KOZHIKODE	Electrical Sub Division Kuttiady	Electrical Section Thottilpalam
329	KOZHIKODE	Electrical Sub Division Koyilandy North	Electrical Section Thikkody
330	KOZHIKODE	Electrical Sub Division Koyilandy North	Electrical Section Areekkulam
331	KOZHIKODE	Electrical Sub Division Koyilandy North	Electrical Section Moodadi
332	KOZHIKODE	Electrical Sub Division Koyilandy North	Electrical Section Koyilandy North
333	KOZHIKODE	Electrical Sub Division Koyilandy North	Electrical Section Melady
334	KOZHIKODE	Electrical Sub Division Koyilandy North	Electrical Section Koyilandy South
335	KOZHIKODE	Electrical Sub Division Muttungal	Electrical Section Azhiyoor
336	KOZHIKODE	Electrical Sub Division Muttungal	Electrical Section Muttungal
337	KOZHIKODE	Electrical Sub Division Muttungal	Electrical Section Orkkatteri
338	KOZHIKODE	Electrical Sub Division Vadakara - South	Electrical Section Maniyoor
339	KOZHIKODE	Electrical Sub Division Vadakara - South	Electrical Section Vadakara Beach
340	KOZHIKODE	Electrical Sub Division Vadakara - South	Electrical Section Thiruvallur
341	KOZHIKODE	Electrical Sub Division Vadakara - South	Electrical Section Vadakara South
342	KOZHIKODE	Electrical Sub Division Vadakara - South	Electrical Section Vadakara North
343	KOZHIKODE	Electrical Sub Division Vadakara - South	Electrical Section Ayanchery
344	KANNUR	Electrical Sub Division Iritty	Electrical Section Iritty
345	KANNUR	Electrical Sub Division Iritty	Electrical Section Mattannur
346	KANNUR	Electrical Sub Division Iritty	Electrical Section Edoor
347	KANNUR	Electrical Sub Division Iritty	Electrical Section Ulikkal
348	KANNUR	Electrical Sub Division Iritty	Electrical Section Vallithode
349	KANNUR	Electrical Sub Division Sreekandapuram	Electrical Section Sreekandapuram
350	KANNUR	Electrical Sub Division Sreekandapuram	Electrical Section Irikkur
351	KANNUR	Electrical Sub Division Sreekandapuram	Electrical Section Payyavur
352	KANNUR	Electrical Sub Division Sreekandapuram	Electrical Section Chemperi
353	KANNUR	Electrical Sub Division, Sivapuram	Electrical Section Thondiyil
354	KANNUR	Electrical Sub Division, Sivapuram	Electrical Section Kelakam
355	KANNUR	Electrical Sub Division, Sivapuram	Electrical Section Kakkayangad
356	KANNUR	Electrical Sub Division, Sivapuram	Electrical Section Sivapuram
357	KANNUR	Electrical Sub Division Payyannur	Electrical Section Payyanur
358	KANNUR	Electrical Sub Division Payyannur	Electrical Section Kunhimangalam
359	KANNUR	Electrical Sub Division Payyannur	Electrical Section Ramanthali
360	KANNUR	Electrical Sub Division Pazhayangadi	Electrical Section Mathamangalam
361	KANNUR	Electrical Sub Division Pazhayangadi	Electrical Section Pazhayangadi
362	KANNUR	Electrical Sub Division Pazhayangadi	Electrical Section Madayi
363	KANNUR	Electrical Sub Division Taliparambu	Electrical Section Taliparamba

364	KANNUR	Electrical Sub Division Taliparambu	Electrical Section Karimbam
365	KANNUR	Electrical Sub Division Taliparambu	Electrical Section Dharmasala
366	KANNUR	Electrical Sub Division Taliparambu	Electrical Section Pariyaram
367	KANNUR	Electrical Sub Division Vellur	Electrical Section Karivellur
368	KANNUR	Electrical Sub Division Vellur	Electrical Section Padiyottuchal
369	KANNUR	Electrical Sub Division Vellur	Electrical Section Vellur
370	KANNUR	Electrical Sub Division Vellur	Electrical Section Cherupuzha
371	KANNUR	Electrical Sub Division, Alakode	Electrical Section Alakode
372	KANNUR	Electrical Sub Division, Alakode	Electrical Section Karthikapuram
373	KANNUR	Electrical Sub Division, Alakode	Electrical Section Chapparappadavu
374	WAYANAD	Electrical Sub Division Kalpetta	Electrical Section Muttil
375	WAYANAD	Electrical Sub Division Kalpetta	Electrical Section Kambalakkad
376	WAYANAD	Electrical Sub Division Kalpetta	Electrical Section Kalpetta
377	WAYANAD	Electrical Sub Division Kalpetta	Electrical Section Vythiri
378	WAYANAD	Electrical Sub Division Kalpetta	Electrical Section Meppadi
379	WAYANAD	Electrical Sub Division Sulthan Bathery	Electrical Section Ambalavayal
380	WAYANAD	Electrical Sub Division Sulthan Bathery	Electrical Section Sulthan Bathery
381	WAYANAD	Electrical Sub Division Sulthan Bathery	Electrical Section Meenangady
382	WAYANAD	Electrical Sub Division Sulthan Bathery	Electrical Section Sulthan Batheri Wes
383	WAYANAD	Electrical Sub Division Mananthavady	Electrical Section Mananthavady
384	WAYANAD	Electrical Sub Division Mananthavady	Electrical Section Vellamunda
385	WAYANAD	Electrical Sub Division Mananthavady	Electrical Section Thavinhal
386	WAYANAD	Electrical Sub Division Mananthavady	Electrical Section Kattikulam
387	WAYANAD	Electrical Sub Division Mananthavady	Electrical Section Korom
388	WAYANAD	Electrical Sub Division Panamaram	Electrical Section Panamaram
389	WAYANAD	Electrical Sub Division Panamaram	Electrical Section Pulpally
390	WAYANAD	Electrical Sub Division Panamaram	Electrical Section Padinjarethara
391	WAYANAD	Electrical Sub Division Panamaram	Electrical Section Padichira
392	MALAPPURAM	Electrical Sub Division Edakkara	Electrical Section Edakkara
393	MALAPPURAM	Electrical Sub Division Edakkara	Electrical Section Chungathara
394	MALAPPURAM	Electrical Sub Division Edakkara	Electrical Section Vazhikadavu
395	MALAPPURAM	Electrical Sub Division Edakkara	Electrical Section Pothukallu
396	MALAPPURAM	Electrical Sub Division Nilamboor	Electrical Section Karulai
397	MALAPPURAM	Electrical Sub Division Nilamboor	Electrical Section Nilamboor
398	MALAPPURAM	Electrical Sub Division Nilamboor	Electrical Section Pookkattumpadam (
399	MALAPPURAM	Electrical Sub Division Nilamboor	Electrical Section Akampadam
400	MALAPPURAM	Electrical Sub Division Wandoor	Electrical Section Thiruvalli
401	MALAPPURAM	Electrical Sub Division Wandoor	Electrical Section Edavana
402	MALAPPURAM	Electrical Sub Division Wandoor	Electrical Section Wandoor
403	MALAPPURAM	Electrical Sub Division Wandoor	Electrical Section Vaniyambalam
404	MALAPPURAM	Electrical Sub Division Wandoor	Electrical Section Mampad
405	MALAPPURAM	Electrical Sub Division Wandoor	Electrical Section Pandikkad (P)
406	MALAPPURAM	Electrical Sub Division, Kalikavu	Electrical Section Melattur
407	MALAPPURAM	Electrical Sub Division, Kalikavu	Electrical Section Kalikavu (P)
408	MALAPPURAM	Electrical Sub Division, Kalikavu	Electrical Section Tuvvur
409	MALAPPURAM	Electrical Sub Division, Kalikavu	Electrical Section Karuvarakundu
410	MALAPPURAM	Electrical Sub Division Edappal	Electrical Section Thavannur
411	MALAPPURAM	Electrical Sub Division Valancherry	Electrical Section Valancherry
412	MALAPPURAM	Electrical Sub Division Valancherry	Electrical Section Kuttipuram
413	MALAPPURAM	Electrical Sub Division Valancherry	Electrical Section Edayur
414	MALAPPURAM	Electrical Sub Division Ponnani	Electrical Section Ezhuvathiruthy
415	MALAPPURAM	Electrical Sub Division Ponnani	Electrical Section Perumpadappu
416	MALAPPURAM	Electrical Sub Division Ponnani	Electrical Section Ponnani
417	MALAPPURAM	Electrical Sub Division Ponnani	Electrical Section Purang
418	MALAPPURAM	Electrical Sub Division Edappal	Electrical Section Edappal
419	MALAPPURAM	Electrical Sub Division Edappal	Electrical Section Changaramkulam
420	MALAPPURAM	Electrical Sub Division Edappal	Electrical Section Kandanakam
421	MALAPPURAM	Electrical Sub Division Kottakkal	Electrical Section Othukungal
422	MALAPPURAM	Electrical Sub Division Kottakkal	Electrical Section Vengara
423	MALAPPURAM	Electrical Sub Division Kottakkal	Electrical Section Kottakkal
424	MALAPPURAM	Electrical Sub Division Kottakkal	Electrical Section Edarikode

425	MALAPPURAM	Electrical Sub Division Kottakkal	Electrical Section Oorakam
426	MALAPPURAM	Electrical Sub Division Parappanangadi	Electrical Section Vallikunnu
427	MALAPPURAM	Electrical Sub Division Parappanangadi	Electrical Section Parappanangadi
428	MALAPPURAM	Electrical Sub Division Parappanangadi	Electrical Section Chelari
429	MALAPPURAM	Electrical Sub Division Tirurangadi	Electrical Section Tirurangadi
430	MALAPPURAM	Electrical Sub Division Tirurangadi	Electrical Section Venniyoor
431	MALAPPURAM	Electrical Sub Division Tirurangadi	Electrical Section Thalappara (P)
432	MALAPPURAM	Electrical Sub Division Tirurangadi	Electrical Section Kunnumpuram (AR)
433	MALAPPURAM	Electrical Sub Division Alathiyoor	Electrical Section Thirunavaya (P)
434	MALAPPURAM	Electrical Sub Division Alathiyoor	Electrical Section Alathiyoor
435	MALAPPURAM	Electrical Sub Division Alathiyoor	Electrical Section Vettom
436	MALAPPURAM	Electrical Sub Division Alathiyoor	Electrical Section Purathur
437	MALAPPURAM	Electrical Sub Division Puthenathani	Electrical Section Kadungathukundu
438	MALAPPURAM	Electrical Sub Division Puthenathani	Electrical Section Thuvvakkad
439	MALAPPURAM	Electrical Sub Division Puthenathani	Electrical Section Puthenathani
440	MALAPPURAM	Electrical Sub Division Puthenathani	Electrical Section Ponmundam (P) (Vy)
441	MALAPPURAM	Electrical Sub Division Tirur (East)	Electrical Section Tanur East
442	MALAPPURAM	Electrical Sub Division Tirur (East)	Electrical Section Tirur (West)
443	MALAPPURAM	Electrical Sub Division Tirur (East)	Electrical Section Tirur (East)
444	MALAPPURAM	Electrical Sub Division Tirur (East)	Electrical Section Thanalur
445	MALAPPURAM	Electrical Sub Division Tirur (East)	Electrical Section, Thanoor
446	MALAPPURAM	Electrical Sub Division Valancherry	Electrical Section Kadampuzha
447	KASARAGOD	Electrical Sub Division Kanhangad	Electrical Section Chittari
448	KASARAGOD	Electrical Sub Division Kanhangad	Electrical Section Kanhangad
449	KASARAGOD	Electrical Sub Division Kanhangad	Electrical Section Padannakkad
450	KASARAGOD	Electrical Sub Division Mavungal	Electrical Section Mavungal
451	KASARAGOD	Electrical Sub Division Mavungal	Electrical Section Rajapuram
452	KASARAGOD	Electrical Sub Division Mavungal	Electrical Section Periya Bazar
453	KASARAGOD	Electrical Sub Division Mavungal	Electrical Section Balamthode
454	KASARAGOD	Electrical Sub Division Nileshtar	Electrical Section Nallompuzha
455	KASARAGOD	Electrical Sub Division Nileshtar	Electrical Section Choyamkode
456	KASARAGOD	Electrical Sub Division Nileshtar	Electrical Section Nileshtar
457	KASARAGOD	Electrical Sub Division Nileshtar	Electrical Section Bheemanady
458	KASARAGOD	Electrical Sub Division Pilicode	Electrical Section Pilicode
459	KASARAGOD	Electrical Sub Division Pilicode	Electrical Section Kayyur
460	KASARAGOD	Electrical Sub Division Pilicode	Electrical Section Trikaripur
461	KASARAGOD	Electrical Sub Division Pilicode	Electrical Section Padanna
462	KASARAGOD	Electrical Sub Division Cherkala	Electrical Section Mulleriya
463	KASARAGOD	Electrical Sub Division Cherkala	Electrical Section Cherkala
464	KASARAGOD	Electrical Sub Division Cherkala	Electrical Section Badiadkka
465	KASARAGOD	Electrical Sub Division Cherkala	Electrical Section Perla
466	KASARAGOD	Electrical Sub Division Kasaragod	Electrical Section Kasaragod
467	KASARAGOD	Electrical Sub Division Kasaragod	Electrical Section Nellikunnu
468	KASARAGOD	Electrical Sub Division Kasaragod	Electrical Section Kumbala
469	KASARAGOD	Electrical Sub Division Kasaragod	Electrical Section Seethangoli
470	KASARAGOD	Electrical Sub Division Udma	Electrical Section Kuttikkole
471	KASARAGOD	Electrical Sub Division Udma	Electrical Section Udma
472	KASARAGOD	Electrical Sub Division Udma	Electrical Section, Chattenchal
473	KASARAGOD	Electrical Sub Division Uppala	Electrical Section Uppala
474	KASARAGOD	Electrical Sub Division Uppala	Electrical Section Manjeshwaram
475	KASARAGOD	Electrical Sub Division Uppala	Electrical Section Vorkady
476	KASARAGOD	Electrical Sub Division Uppala	Electrical Section Paivalika

List of Circle/Division/Other Offices - Phase 3		
Sl No	Office	Location
1	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, Vydhuti Bhavanam,Aroor road, Pathanamthitta Dist.
2	Circle Office	Office of The Deputy Chief Engineer, KSEB, Generation Circle Moozhiyar PO, Patahnamthitta Dist.
3	Division Office	Office of The Executive Engineer, KSEB, Genaration Division,Seethathodu PO, Kakkadu, Patahanamthitta Dist.
4	Circle Office	Office of The Deputy Chief Engineer, KSEB, Electrical Circle, Kattakada, Thiruvananthapuram Dist.
5	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Kattakkada, Thiruvananthapuram Dist.
6	Division Office	Office of The Executive Engineer, KSEB,Electrical Division Kazhakoottum, , Thiruvananthapuram
7	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Thiruvananthapuram, LA complex, Vikas bhavan PO ,
8	Circle Office	Office of The Deputy Chief Engineer, ,Transmission Circle , Vydhuthybhavanam,Power house compound,Alappuzha Dist.
9	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, Brahmapuram, Ernakulam Dist.
10	Division Office	Office of The Executive Engineer, KSEB, Transmission Division ,Old Jangar Jetty road,near High court Jn,Ernakulam Dist.
11	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Mavelikkara, Alappuzha Dist.
12	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Chengannur, Alappuzha Dist.
13	Circle Office	Office of The Deputy Chief Engineer, KSEB, Electrical Circle Harippad, Madhava Junction, Harippad, Alappuzha Dist.
14	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Mavelikara, Alappuzha Dist.
15	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, Kolothumpady, Nadavarambu PO,Thrissur Dist.
16	Division Office	Office of The Executive Engineer, KSEB, Transmission Division , 101Kv Substation,Koodapuzha PO Thrissur Dist.
17	Circle Office	Office of The Deputy Chief Engineer, KSEB, Electrical Circle Kalpetta, Wayanad Dist.

18	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Kalpetta, Wayanad Dist.
19	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, 220KV SubStation,Kaniyampatta, Wayanad Dist.
20	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Babanish arcade, Logans road,Thalassery, Kannur Dist.
21	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Taida complex, near bus stand Iritty, Kannur Dist.
22	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, Kanhirode, Kannur Dist.
23	Circle Office	Office of The Deputy Chief Engineer, System Operation Circle, Kanhirode,Koodali PO, Kannur Dist.
24	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, Kasaragode, 220KV SubStation, Mylatti POKasaragode Dist.
25	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Kundara, Kundara, Kollam Dist.
26	Circle Office	Office of The Deputy Chief Engineer, Vydhuthy bhavanam, Transmission Circle Kottarakkara, Kollam Dist.
27	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Kundara, Kundara, Kollam Dist.
28	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Tholikode PO, Punalur,Kollam Dist.
29	Circle Office	Office of The Deputy Chief Engineer, KSEB, Electrical Circle ,Pakkil PO , Pallom, Kottayam Dist.
30	Circle Office	The Deputy Chief Engineer, KSEB, Transmission Circle, Poovanthuruthu PO, Kottayam Dist.
31	Circle Office	Office of The Deputy Chief Engineer, KSEB, Civil Circle, Pallom PO, Kottayam Dist.
32	Circle Office	Office of The Deputy Chief Engineer, KSEB, Transmission Circle, KSEB LTD,Nallalam PO, Kozhikode Dist.
33	Circle Office	Office of The Deputy Chief Engineer, KSEB, Civil circle Kakkayam, Kozhikode Dist.
34	Division Office	Office of The Executive Engineer, KSEB, Kuttyadi Generation Division,Kakkayam PO Kozhikode Dist.
35	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Kondotty, Kuzhimanna PO, Malappuram Dist.

36	Circle Office	Office of The Deputy Chief Engineer, KSEB, Transmission Circle Munduparambu PO, Malappuram Dist.
37	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Tirur,Edarikode PO, Tirur, Malappuram Dist.
38	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Wandoor, Vaniyambalam PO, Malappuram Dist.
39	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, Pala, Kottayam Dist.
40	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Alathur, Palakkad Dist.
41	Circle Office	Office of The Deputy Chief Engineer, KSEB, Transmission Circle,220kv Subststion ,NIDA Kanjiode PO, Palakkad Dist.
42	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Vennakkara, Thirunellayi PO Palakkad Dist.
43	Division Office	Office of The Executive Engineer, KSEB, Transmission Division , Kacherimedu,Chittoor PO, Palakkad Dist.
44	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Muvattupuzha, Muvattupuzha,
45	Regional Office	Office of The Chief Engineer, KSEB, System Operation, HMT college PO,Kalamaserry, Ernakulam Dist.
46	Circle Office	Office of The Deputy Chief Engineer, KSEB, Transmission Circle, Kalamasserry,HMT colony PO, Ernakulam Dist.
47	Division Office	Office of The Executive Engineer, KSEB, Transmission Division, MA college PO,Kothamangalam, Ernakulam Dist
48	Circle Office	Office of The Deputy Chief Engineer, KSEB, Generation Circle, Substation compound,Kothamangalam college PO, Ernakulam Dist.
49	Division Office	Office of The Executive Engineer, KSEB, Generation Division Idamalayar, Ernakulam Dist.
50	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Mannarkkad, Palakkad Dist.
51	Division Office	Office of The Executive Engineer,Electrical Division , Building NO.111/58(C),KSEB LTD,Pattambi, Palakkad Dist.
52	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Shoranur, Palakkad Dist.

53	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Kattappana, Idukki Dist.
54	Division Office	Office of The Executive Engineer, KSEB, Electrical Division Adimaly, Kallarukutty PO , Kathippara ,Idukki Dist.
55	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Kuttykanam PO, Idukki Dist.
56	Circle Office	Office of The Deputy Chief Engineer, KSEB, Transmission Circle Thodupuzha, Ernakulam Dist.
57	Regional Office	Office of The Chief Engineer, KSEB, Generation, Moolamattam, Idukki Dist.
58	Circle Office	Office of The Deputy Chief Engineer, KSEB, Generation Circle Meencut, Chithirapuram PO,Idukki Dist.
59	Circle Office	Office of The Deputy Chief Engineer, KSEB, Civil Circle Meencut PO,Munnar, Idukki Dist.
60	Division Office	Office of The Executive Engineer, KSEB, Generation Division Kallarkutty, Kathippara, Adimali,Idukki Dist.
61	Division Office	Office of The Executive Engineer, KSEB, Generation Division Chithirapuram, Idukki Dist.
62	Division Office	Office of The Executive Engineer, KSEB, Transmission Division Madakkathara, Thrissur Dist.
63	Division Office	Office of The Executive Engineer, KSEB, Generation Division Porigalkuthu, Thrissur Dist.
64	Division Office	Office of The Executive Engineer, KSEB, Electrical Division ,Kakkad po , Malappuram Dist.
65	Division Office	Office of The Executive Engineer, KSEB, Electrical Division , Nadapuram PO , kallachi,Kozhikode Dist.
66	Division Office	Office of The Executive Engineer, KSEB, Transmission Division office,Puthoor PO Vadakara, Kozhikode Dist.
67	Division Office	O/o The Executive Engineer,Electrical Division Office, KSEB,Near Perunna bus stand ,Changanassery
68	Circle office	O/o The Deputy Chief Engineer, KSEB, Electrical Circle, Kallipadam P.O, Shoranur. Pin
69	Division Office	O/o The Executive Engineer, Electrical Division KSEB, Punalur, Tholicode(PO)
70	Division Office	O/o The Executive Engineer, Electrical Division, KSEB Neyyattinkara(PO), Trivandrum
71	Division Office	O/o The Executive Engineer, KSEB Electrical Division Payyannur, Payyannur(PO)
72	Circle office	O/o The Deputy Chief Engineer, KSEB Electrical Circle, Sreekandapuram, Kannur.

73	Division Office	O/o The Executive Engineer, Electrical Division, KSEB Nedumangad(PO), Trivandrum
74	T.Division Office	O/o The Executive Engineer, KSEB, Electrical Division, Kasargod, Murali Mukund building, Kasargod PO, Pin
75	Division Office	O/o The Executive Engineer, Electrical Division,KSEB, Pathanamthitta
76	Division Office	O/o The Executive Engineer ,Electrical Division Office,Thrissur East
77	Division Office	O/o The Executive Engineer ,Electrical Division Office,Thrissur(west),chembukkavu p.o city post office
78	Circle office	O/o The Deputy Chief Engineer, KSEB, Cantonment, Power House Building, Block No.1, Ground Floor, YMCA Road, Near Public Library, Kollam
79	Division Office	O/o The Executive Engineer, KSEB, Electrical Division, 110kV Technopark Substation Yard, Kazhakuttam, Thiruvananthapuram.
80	Division Office	O/o The Executive Engineer, KSEB Electrical Division Office,Vydyuthi Bhavanam Kannur
81	Division Office	O/o The Executive Engineer, KSEB, Electrical Division Chittur, Chittur P O,Palakkad
82	Division Office	O/o The Executive Engineer, Electrical Division, Vydyuthi Bhavanam, Gandhi Road Kozhikode
83	Division Office	O/o The Executive Engineer, Electrical Division, KSEB, Balussery, Kozhikode
84	Division Office	O/o The Executive Engineer, Electrical Division, KSEB, Mattancherry, Moolamkuzhy, Kochi
85	Division Office	O/o The Executive Engineer, Electrical Division, KSEB, Near Power House, Aluva Pin
86	Regional office	O/o Chief Engineer (Dist. Central), KSEB, Gandhi Square, D.H. Road, Ernakulam, Kochi
87	Division Office	O/o The Executive Engineer, Electrical Division ,Kanhangad, Kasargod Dist.
88	Division Office	O/of The Executive Engineer KSEB Electrical Division Angamaly Angamaly South Opposite TELK Ernakulam District PIN 683573
89	PETARC	PETARC, KSEB Ltd,Moolamattom,Idukki
90	RPTI	Office of The Executive Engineer, RPTI, KSEB, Vydyuthi Bhavanam, Vellayil, Beach, Kozhikode Dist.
91	RPTI	Office of The Executive Engineer, RPTI, KSEB, Thiruvananthapuram, Thiruvananthapuram Dist.
92	RPTI	Office of The Executive Engineer, RPTI, KSEB, Pallom, Kottayam Dist.

93	RITU	Office of The Executive Engineer (IT), Regional IT Unit, KSEB, Vydhyuthi Bhavanam, Vellayil, Beach, Kozhikode.
94	RITU	Office of The Executive Engineer,Regional IT Unit ,110kv substation,vytilla,kochi-
95	RPTI	Office of The Executive Engineer,RPTI, KSEB, Eravimangalam, Thrissur Dist
96	IT Sub Unit	IT sub Unit Vidyuthi bhavanam Kottapuram, Thrissur,
97	Other Offices	18 Nos