## CORRIGENDUM - I

Tender Name: Request for Proposal for Procurement, Installation, Commissioning and Management of SDWAN for MSEDCL Remote Offices

Tender No: MSEDCL/IT/SDWAN/2020-21

Sr No	Page No.	Section (Name & No.)	Statement as per RFP	Revised Clause
1	16	Scope of Work	Bidder has to migrate existing WAN links (MPLS/ILL/FTTH Broadband/Broadband links) on new SD-WAN devices and Its bidders responsibility to commission any new FTTH broadband, MPLS, ILL, broadband link on supplied wifi enabled SD-WAN device during the contract period.	Bidder has to migrate existing WAN links (MPLS/ILL/FTTH Broadband/Broadband links) on new SD-WAN devices and Its bidders responsibility to commission any new FTTH broadband, MPLS, ILL, broadband link on supplied wifi enabled SD-WAN device during the contract period. The SD WAN Device either may be WiFi enabled or integrated with external WiFi access point.
2	19	Scope of Work	It is bidders responsibility to Install ,configure the SD-WAN controller HUB at MSEDCL cloud. Spoke devices are at Remote Office locations. All the location communicate with each other and forming the full MESH topology ( Refer the Methodology under Section D Scope of Work 4 Methodology ) .	It is bidders responsibility to Install ,configure the SD-WAN controller at MSEDCL Cloud or Bidders responsibility to provide SD-WAN controller as a service using MSEDCL cloud credentials as HUB device at MSEDCL/AWS transit VPC cloud. Spoke devices are at Remote Office locations. All the location communicate with each other and forming the full MESH topology ( Refer the Methodology under Section D Scope of Work 4 Methodology )

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3	19	Scope of Work	It is bidders responsibility to provide MSEDCL Cloud infra requirement like Instance type ,Storage Space, Nos. of Public IP etc. at the time of bidding in Annexure 18.	It is bidders responsibility to provide MSEDCL Cloud infra requirement like Instance type, Storage Space, Nos. of Public IP etc. at the time of bidding in Annexure 18. or Those providing SD-WAN controller as a service using MSEDCL cloud credential in this case its bidders responsibility to born all charges for Dedicated Cloud infra requirement like Instance type, Storage Space, Nos. of Public IP, Management, Patches, Upgradation, Licenses etc
4	19	Scope of Work	Bidder should provide the Centralized Management (Configuration, Network Management, Backup etc.) and Centralised Reporting tool for managing complete SD-WAN solution and should have the capacity to store the logs for 12 months on MSEDCL Cloud	Bidder should provide the Centralized Management (Configuration, Network Management, Backup etc.) and Centralised Reporting tool for managing complete SD-WAN solution and should have the capacity to store the logs for minimum 12 months on MSEDCL Cloud OR those who are providing Centralized Management (Configuration, Network Management, Backup etc.) and Centralised Reporting tool for managing complete SD-WAN solution as a service in this case bidder will born all cost associated with it to run smooth operation of solution

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5	20	3. Hardware/Virtual Instance Requirements Details	Requirement SD WAN Devices L2 Switches Central Management and reporting Solution		Sr No	Regularement SD-WAN Devices L2 Switches Central Management and reporting Solution	MSEDCL CLOUD, CLOUD HOSTED SERVICE Virtual Instance in HA NIL Virtual Instance in HA	Reporte Offices  1 Device at each Location 1 Device at each Location NIL
6	21	4. Methodology 4.1 Architecture	Solution should be Amazon cloud ready with supported software image at Hub location i.e. MSEDCL Cloud and Hardware based at Spoke location.	suppo MSED	orte OCL (	hould be Ama d software im Cloud or AWS e based at Spo	age at Hub Shosted Se	location i.e. r <u>vice</u> and
7	21	4. Methodology 4.1 Architecture	Solution should be provided with centralized Management tool, reporting tool on MSEDCL Amazon cloud. All the proposed virtual software images should be certified and supported by MSEDCL Cloud. Solution should have support for cloud based architecture.	Mana cloud softw MSED	gen or I are CL (	Hosted AWS S images should	orting tool ( i <u>ervice</u> . All t d be certifie . Solution s	centralized on MSEDCL Amazon he proposed virtual ed and supported by hould have support for
8	25	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	Must have complete traffic visibility in terms of per user/per Tunnel bandwidth consumption, per user /Per Tunnel no. of sessions creation, per user /Per Tunnel traffic analyses such as no. of send and receive bytes, per use /Per Tunnel application access, destination traffic.	user/ consu	per ımp	tunnel or per	user/IP add /per tunne	ty in terms of <u>per</u> dress <u>bandwidth</u> or per user/IP address accessed

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9	21	4.2 Technology	V. The remote SD_WAN appliance should be Wi-Fi enabled and securely configured SSID	The remote SD_WAN appliance should be Wi-Fi enabled with <u>integrated or external access point</u> and securely configured SSID
10	23	4.8 Orchestration and Management	SDWAN solution should provide centralized and simplified management for improving productivity. Solution should be managed centrally on MSEDCL cloud with following features	SDWAN solution should provide centralized and simplified management for improving productivity. Solution should be managed centrally on MSEDCL cloud or AWS hosted Service with following features
11	24	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	1. SD-WAN Controller at MSEDCL Cloud	1. SD-WAN Controller at MSEDCL Cloud or <u>SD-</u> <u>WAN Controller as a service using MSEDCL Cloud</u> <u>credentials</u>
12	24	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	SD-WAN controller must be MSEDCL cloud ready. SDWAN virtual appliance and should be installed in MSEDCL cloud with High Availability.	SD-WAN controller must be MSEDCL cloud ready. SDWAN virtual appliance and should be installed in MSEDCL cloud with High Availability. Or SD-WAN controller as a service using MSEDCL cloud credential and it should be configure in High Availability and no single point failure in any terms
13	24	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	SD-WAN controller must have functions like WAN Optimization, Forward Error Correction or Packet Duplication with capability to send duplicate packets over a single tunnel.	SD-WAN controller must have functions like WAN/Flow Optimization, Forward Error Correction or Packet Duplication with capability to send duplicate packets over a single tunnel

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14	25	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	SD-WAN controller instance must deliver at least 2.5 Gbps throughput after enabling all features on instance (Like URL Filtering, Firewall, SSL inspection/IPSEC etc.) and 40% instance resources should be free during the contract period, its bidders responsibility to maintain 40% Free resource (CPU, Memory, Storage, Bandwidth Based Licenses etc.) and it must be free of cost during contract period	SD-WAN controller instance must deliver at least 2.5 Gbps throughput. The SD-WAN device should provide <b>no packet drops with no performance degradation</b> after enabling all features on instance (Like Firewall, SSL inspection/IPSEC etc.) and even after increase in remote SD-WAN appliances (limited to tender specs) during contract period and without any additional cost implication to MSEDCL.
15	25	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	The virtual instance provisioned in the MSEDCL cloud should support vNICS and Enhanced Networking (MSEDCL Cloud)	The virtual instance provisioned in the MSEDCL cloud should support vNICS and Enhanced Networking (MSEDCL Cloud) or <u>for SD-WAN controller as service</u> that should be on <u>dedicated instance and no one sharing this instance</u>
16	27	2. Remote Location SD-WAN Appliance	Provide Dedicated WI-FI based SD-WAN appliance and have zero touch deployment features.	Provide Dedicated WI-FI based SD-WAN appliance or SD-WAN appliance with external Access Point and have zero touch deployment feature

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17	27	2. Remote Location SD-WAN Appliance	SD-WAN edge device must deliver at least 200Mbps encrypted throughput after enabling all features on instance (Like URL Filtering, Firewall, SSL inspection/IPSEC etc.) and 40% instance resources should be free during the contract period, its bidders responsibility to maintain 40 % free resource (CPU, Memory, Storage, Bandwidth Based Licenses etc.) and it must be free of cost	SD-WAN edge device must deliver at least 200Mbps encrypted throughput .The SD-WAN device should provide no performance degradation and no packet drops after enabling all features (Like URL Filtering, Firewall, SSL inspection/ IPSEC etc.)
18	30	3. L2 Manageable Switch	Shall have minimum 4 Mb of packet buffer size, 16K MAC Addresses and 4K VLAN	Shall have minimum 4 <u>MB</u> of packet buffer size, 16K MAC Addresses and 4K VLAN ID
19	32	5. Administration, Management and Logging	Solution must offer MSEDCL cloud based solution in high availability for centralized management, real time monitoring & customizable reporting solution to store logs and reports with dashboard capability.	Solution must offer MSEDCL cloud based or <u>AWS hosted Service solution</u> in high availability for centralized management, real time monitoring & customizable reporting solution to store logs and reports with dashboard capability.`
20	79	Annexure 2: Price Bid MSEDCL/IT/SDWAN/2020-21	SD-WAN Controller at MSEDCL Cloud in HA (Separate Primary & Secondary Devices)	SD-WAN Controller at MSEDCL Cloud or <u>AWS</u> <u>Hosted Service</u> in HA (Separate Primary & Secondary Devices)

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21	79	Annexure 2: Price Bid MSEDCL/IT/SDWAN/2020-21	Logging , Reporting and Monitoring at MSEDCL Cloud	Logging , Reporting and Monitoring at MSEDCL Cloud or Hosted Service
22	79	Annexure 2: Price Bid MSEDCL/IT/SDWAN/2020-21	Installation Charges ( The Installation of MSEDCL Cloud Controller and sample Location must be done by OEM)	Installation Charges ( The Installation of MSEDCL Cloud Controller or <u>AWS hosted</u> <u>Controller</u> and sample Location must be done by OEM)
23	26	Section – E Detail Technical Specifications 1.SD-WAN Controller at MSEDCL Cloud Sr. No. 20	The solution should support TLS for management web GUI SSL access for better security or Command Line access SSH	The solution should support <u>latest</u> TLS for management web GUI SSL access for better security or Command Line access SSH
24	36	3.Service Level Agreements Note: Sr. No. 6&7	Deductions/ LDs - The total deduction per quarter shall not exceed 20% of the total QP value 7. Two consecutive quarterly deductions amounting to more than 20% of the QPs on account of any reasons will be deemed to be an event of default and termination	6. Deductions/ LDs - The total deduction per quarter shall not exceed <u>10%</u> of the total QP value 7. Two consecutive quarterly deductions amounting to more than <u>10%</u> of the QPs on account of any reasons will be deemed to be an event of default and termination.

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25	22	4.3 Network Integration: IX	Solution should be integrate with the existing SD-WAN location	Bidder shall integrate his SD WAN solution with existing Fortinet make NGFW SD-WAN boxes. List of these locations is as under: 1) Prakashgad HO Mumbai 2) Prakashganga HO Mumbai 3) HSBC HO Mumbai 4) Dharavi Mumbai 5) Bhandup HO Software Cell 6) Kalyan HO Software Cell 7) Thane HO Software Cell 8) Vashi HO Software Cell 10) Pune Regional Software Cell 11) Nagpur Regional Software Cell 12) Nasik Regional Software Cell 12) Nasik Regional Software Cell Details of Existing Network Equipment as as follows: A) NGFW: Make: Fortinet Model: 501 E, 201 E, 101E Warranty/AMC: March 2023 B) Router: 1) Make: Juniper 2) Model: SRX 340 3) Warranty: March 2023 C) Switch: 1) Make: Juniper 2) Model: EX2300 - 48T, Ex4300-48T 3) Warranty: March 2023

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26	13	2.Bidders Pre-Qualification Criteria Sr. No.i.a	The Bidder should have been in operation in India for minimum of five years.	a) The bidder should be a single company registered / incorporated in India under companies act 1956 and 2013 or LLP with registered office in India and The Bidder should have been in operation in India for minimum of five years.
27	13	2.Bidders Pre-Qualification Criteria Sr. No.ii	The Bidder , Should have average Annual turnover of minimum 10 Cr in the last 3 financial year 2016-17 ,2017-18 and 2018-19 from the IT Network , Server and Security Infrastructure(Supply ,installation and maintenance)	The Bidder , Should have average Annual turnover of minimum <b>2</b> <i>Cr</i> in the last 3 financial year (FY 16-17, 17-18, 18-19 <u>or FY 17-18, 18-19,19-20)</u> . from the IT Network , Server and Security Infrastructure (Supply ,installation and maintenance)
28	13	2.Bidders Pre-Qualification Criteria Sr. No.iii	The Bidder should have a positive net Worth during last three audited financial years.	The Bidder should have a positive net worth during last three audited financial years (FY 16-17, 17-18, 18-19 or FY 17-18, 18-19,19-20).
29	13	2.Bidders Pre-Qualification Criteria Sr. No.iv	The Bidder should have executed either: 1. One work order/Contract costing not less than Rs.1.30 Crores. or 2. Two Work Orders/Contracts costing not less than Rs.75 Lakh each. Or 3. Three Work Orders/Contracts t costing not less than Rs.50 Lakh each. of similar works in IT Network and Security Infrastructure (Supply ,installation and maintenance). Work orders in the last 5 financial years will be considered.	The Bidder should have executed either:  1. One work order/Contract costing not less than Rs.5 Crores. or  2. Two similar Work Orders/Contracts costing not less than Rs.3 Crores each. Or  3. Three similar completed Work costing not less than Rs.2.5 Crores each. of similar works in IT Network and Security Infrastructure (Supply installation and maintenance). Work orders in the last 5 financial years will be considered.
30		13. Evaluation Process	Clause Added	<u>Technical Presentation on Mandatory</u> <u>Technical requirement</u>
31		4.Payment Terms	. Clause Added	11. The total Penalty shall be limited to 10% of the contract value
32		3. Qualification Criteria for OEM Point 10	Clause Added	The OEM/OEM products shall not be banned by any country in the world as on date of bid submission.

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33		Section D. 1 Scope of Work:	Clause Added	Successful bidder will be responsible for all open tickets after Knowledge Transfer. All the details of existing open tickets will be handed over to the new support partner during Knowledge Transfer. Bidder must complete all Knowledge Transfer activities in maximum one month from date of expiry LOA.
34		Section D. 1 Scope of Work:	Clause Added	j. The seating arrangement and connectivity will be provided by MSEDCL at MSEDCL's various office locations. However, the laptops /desktops/Traveling cost required for the res o u rces deployed will be bidder's responsibility.
35		Section D. 1 Scope of Work:	Clause Added	k. Suitable workspace in the respective sites/offices may be provided to the Bidder subject to the availability, free of charge. However, providing such space and store is for the smooth execution of contract and non-provision of such space does not bind the MSEDCL and make the MSEDCL liable to the Bidder in any manner except as specifically provided in the contract terms. MSEDCL is not liable for a n y loss or damage to the Bidder's equipment as a result of variation in voltage or frequency or interruption in power supply or other loss to the Bidder arising there from.

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36		Section D. 1 Scope of Work:	Clause Added	The business hours for the resources provided by bidder for FMS will be same as MSEDCL working days & working hours. However with prior intimation from MSEDCL, the resources should be available for work on holidays, if required.
37	18	2. On-site Support	iii. In this Bidder shall manage IT infra supplied by him along with existing Network equipment (Switches, Routers etc.) at all locations and other MSEDCL network related activities which may part of existing or future project.	iii. In this Bidder shall manage IT infra supplied by him along with existing Network equipment (Switches, Routers etc.) at all locations and other MSEDCL network related activities which may part of existing or future upcoming project.
38	33	2.Implementation Timelines & Penalties Sub Clause 3. Stabilization and acceptance certificate by MSEDCL	If the Bidder fails to pass the operational acceptance even after 3 unsuccessful attempts, MSEDCL reserves the right to terminate the contract and the forfeit the PBG.	A) After Supply, Installation, Configuration & Commissioning of SDWAN Controller on Cloud and SDWAN remote location setups, and after confirming data communication between the remote location SDWAN Setup and Cloud, the Operational acceptance certificate will be issued by MSEDCL. B) If the Bidder fails to pass the operational acceptance even after 3 unsuccessful attempts, MSEDCL reserves the right to terminate the contract and the forfeit the PBG.

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39	20	Scope of Work	xvi. Bidder has to provide the ticketing application where MSEDCL user can log the call and track the resolution time and call reports.	xvi. Bidder has to provide the ticketing application on MSEDCL Cloud where MSEDCL user can log the call and track the resolution time and call reports.  The instance required for ticketing application should be given in the format given in Annexure 18
40	35	3.Service Level AgreementsSD-WAN Solution Services related1.Onsite Services	The problem must be fixed within 2 hours for 99% of the calls in a month. For every fall of 1%, the penalty of 4% of quarterly AMC charges will be levied. If Problem not resolved, bidders shall provide replacement within 24 Hrs of logging complaint.	The problem must be fixed within <u>6 hours</u> for 99% of the calls in a month. For every fall of 1%, the penalty of 4% of quarterly AMC charges will be levied. If Problem not resolved, bidders shall provide replacement within 24 Hrs of logging complaint. If problem is not resolved in 24 Hrs after logging complaint additional 2000 Rs per week per device will be levied.
41	35	3. Service Level Agreements SD-WAN Solution Services related 3. Unavailability of the SD- WAN services field location	The problem must be fixed within 2 hours for 99% of the calls in a month.  For every fall of 1%, the penalty of 4% of quarterly AMC charges will be levied.  If Problem not resolved, bidders shall provide replacement within 24 Hrs of logging complaint.	The problem must be fixed within <u>6 hours</u> for 99% of the calls in a month. For every fall of 1%, the penalty of 4% of quarterly AMC charges will be levied. If Problem not resolved, bidders shall provide replacement within 24 Hrs of logging complaint. <u>If problem is not resolved in 24 Hrs after logging complaint additional 2000 Rs per week per device will be levied.</u>
42	77	Annexure 2: Price Bid A1. Sr. no. 4	Logging , Reporting and Monitoring at MSEDCL Cloud	<u>Ticketing</u> , Logging , Reporting and Monitoring at MSEDCL Cloud

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43	33	2. Implementation Timelines & Penalties Sr. No 2 Penalty	For every complete week's delay or part thereof, penalty of 0.5% of on SD WAN solution Cost, SD WAN solution Cost mentioned in Price bid/LOA will be imposed as Liquidated Damages. The max penalty shall be limited to the 10% of SD WAN solution Cost. The Bidder would be required to provide proper justification for the delay. The delay due to MSEDCL if any will be excluded for levy of liquidated damages. If MSEDCL feels that the justification provided by the Bidder is not credible, the contract may be terminated.	A. 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.  B. In addition, the Supplier is liable to the Purchaser for payment penalty as specified in the SLA.  C. 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 MSEDCL, the MSEDCL shall be free to impose any penalty as deemed fit. In addition, the MSEDCL shall reserve the right to terminate the contract and recover liquidated damages by forfeiting the performance guarantee submitted by the Purchaser.
44		2. Remote Location SD-WAN Appliance	Clause Added	The proposed SD-WAN edge device should have minimum 8GB DRAM and 8GB internal Flash to ensure higher performance
45		4.3 Network Integration	Clause Added	The proposed SD-WAN appliance, Switch and Access Point should be from the same OEM for better interoperability and management.

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46		2. Remote Location SD-WAN Appliance	Clause Added	The proposed SD-WAN solution should provide Active-Active resource utilization at WAN edge and WAN link layers. The solution should support Active-Active dual router topology without using external upstream switches.
47		2. Remote Location SD-WAN Appliance	Clause Added	The SD-WAN Solution should have the capability to exchange unique encryption keys per transport.
48		Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	Clause Added	The SD-WAN solution should have separate controller for managing control plane and dedicated management and monitoring system for provisioning the Remote Location SD-WAN appliance.
49		Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	Clause Added	The SD-WAN solution should have Zero Trust authentication between controllers, orchestration and management software as well as with Remote Location SD-WAN appliance
50		2. Remote Location SD-WAN Appliance	Clause Added	The SD-WAN solution should have Fail to Wire IPS functionality on the Remote Location SD-WAN appliance
51		2. Remote Location SD-WAN Appliance	Clause Added	The Remote Location SD-WAN appliance should able to support minimum 15 Segments from day-1
52	25	Section – E Detail Technical Specifications 1. SD-WAN Controller at MSEDCL Cloud	SD-WAN controller appliance support IPv6	SD-WAN controller/HUB appliance should support IPv6
53	27	2. Remote Location SD-WAN Appliance	SD-WAN controller must offer SD-WAN functionalities along with security features such as stateful inspection firewall, App Aware Firewall, Web/URL Filtering for local internet and should be able to block infected and malicious domains	SD-WAN appliance must offer SD-WAN functionalities along with security features such as stateful inspection firewall, App Aware Firewall, Web/URL Filtering, <b>IPS</b> for local internet and should be able to block infected and malicious domains
54	27	2. Remote Location SD-WAN Appliance	SD-WAN device must have functions like Flow Optimization, Forward Error Correction or Packet Duplication with capability to send duplicate packets over a single tunnel.	SD-WAN device must have functions <b>like Traffic Flow Optimization,</b> Forward Error Correction or Packet Duplication with capability to send duplicate packets over a single tunnel.
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	55	-	Management and Logging	report template such as Top Users, Top Application, Top Destinations, Interface utilization per device per link, CPU and Memory usage of each device, malware / threat	Logging and reporting solution must have ready-made report template such as Top Users/ <b>Top IP Addresses</b> , Top Application, Top Destinations, Interface utilization per device per link, CPU and Memory usage of each device, malware / threat analysis report etc.